

Seattle Cohousing Market:
Analyzing Supply and Demand through Appraisal Data
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Introduction

It is common knowledge that the United States is the world's number one energy consumer and importer, despite having a significantly smaller population than the world's largest nations (U.S. Energy Information Administration, 2005). Unfortunately, as environmental consciousness does rise in this country, little behavioral change accompanies that growth (Meltzer, 2000). A large cultural shift in America is an immediate necessity for the continued prosperity of its people, and a vehicle for that shift is presented in the way the nation houses itself. Housing reforms over the last century have been one of the largest contributors to the reshaping of the American landscape, and today that type of reform offers a chance at change for the better. While not a solution by itself, cohousing, a form of collaborative community living, appears to offer an opportunity for a rapid structural and social transition towards economic and environmental sustainability. As global and national trends show that people are increasingly locating themselves in urban areas (Cohen, 2006), cohousing appears ready to offer this influx of people an affordable method for housing themselves that builds social equity and reduces environmental impact.

However, despite a large body of literature suggesting that cohousing is a beneficial way to house a population, there seems to be little evidence to indicate that private-sector housing developers (the bulk of the American housing development apparatus) can develop cohousing units in a fiscally sustainable way. Burnside (2005) suggests that fiscal sustainability can be rudimentarily defined as an entity's ability to continue operating with a set of policies that warrants a positive balance between revenues and expenditures (p. 11). In the context of a potential private cohousing developer, this would refer to that developer's ability to produce and sell cohousing units for a consistent and reasonable profit.

Can commercial developers build seemingly beneficial cohousing projects while maintaining their financial viability? This paper seeks to answer part of that question by comparing the appreciation rates of existing units of cohousing to those of more traditional condominium housing units in the same geographical market. Since market prices are a function of supply relative to demand, cohousing value appreciation rates should be able to serve as a loose indicator of demand. This research seems to indicate that the market values of cohousing units appreciate at a rate higher than those of nearby condominium units. While there are limitations to this small-scale study, the results of this research suggest that there is an unmet demand for cohousing units that could be satisfied by private-sector housing developers.

Due to the large volume of pro-cohousing literature and research already completed (Hasell & Scanzoni, 2000; Jackson, 2005; Kozeny, 2005; McCamant & Durrett, 1988; Meltzer, 2000; ScottHanson & ScottHanson, 2005) this paper will avoid exclusively analyzing the merits of cohousing as a development pattern. Instead, the goal of this research is to contribute to a question that has long vexed this area's many cohousing proponents: why has such a seemingly beneficial housing practice failed to become widespread in North America, particularly in the Seattle Metropolitan Area? Examining this city specifically seems especially appropriate due to the prevalence of cultural values emphasizing sustainability and community—factors that have facilitated the spread of cohousing in Europe. Since no insurmountable barriers are readily apparent to explain cohousing's slower proliferation in the city, this study is aimed at determining whether or not an unmet need for cohousing stock exists, waiting to be satiated with new development. In that vein, primary research has been directed at analyzing market factors and signals that might impact the ability of the cohousing model to be used more frequently.

This paper will begin with an explanation of cohousing that gives an overview of the development pattern's spatial and social characteristics. Following this overview, time will be spent discussing the body of literature on cohousing, of which the overwhelming majority suggests there are multiple benefits to be had from implementation of the development style. After the findings of multiple pro-cohousing researchers have been discussed, attention will then be given to the origin of cohousing and its expansion throughout Europe, the United States, and the Seattle Metropolitan Area in particular.

Attention will then turn to this paper's contribution to information on the subject. To begin, the methods for which real estate appraisal data on the Seattle condominium market was collected will be discussed. This will lead directly into a description of how the accumulated data was filtered and processed. Following that, the refined information will be presented and a discussion of the research's results will begin. The study's potential findings will be given, along with notes regarding various limitations to any conclusions drawn. Finally, a discussion will commence featuring suggestions for those who may wish to continue attempting to answer this specific research question, along with alternative paths for future cohousing market research.

Literature Review

Characteristics of Cohousing

While extremely familiar to some, knowledge of cohousing is relatively absent in the mainstream American public and academic material on the subject is comparatively obscure. In fact, prior to the publishing of McCamant and Durrett's (1988) seminal work, *Cohousing: A Contemporary Approach to Housing Ourselves*, cohousing was completely nonexistent in the United States. That is because cohousing was first defined and introduced by the pair of architects, who honed their description while studying the innovative Bofaellesskaber housing

communities of Denmark. Bofaellesskaber, which literally translated means “living communities,” exhibited several unique traits that the couple was able to select from while forming their description of a housing model intended to fit the needs of the United States—cohousing.

Stannard (1992) wrote about the rise of cohousing early on, comparing and contrasting it to the original Bofaellesskaber in her Master’s Thesis, *Bofaellesskaber versus Cohousing*. In this thesis she describes the following characteristics of Bofaellesskaber:

- Characterized by specific social and spatial configurations that encourage social interaction, in contrast to solely social (parent-teacher associations) or purely spatial (New Urbanist housing development) organizations
- Primary community emphasis is on facilitating social interaction between community members
- Comprised of both private housing units and shared common facilities, with varying degrees of emphasis on common facilities according to community’s wishes
- Private and common facilities are typically clustered, if not part of the same structure
- Designed with a single major shared facility called a common house at the center of the development that often functions as the communal dining area, a laundry facility, a meeting area, children’s play areas, and/or many other uses compatible with community
- Decreased dwelling unit sizes due to major uses being housed in common facilities
- Collective parking typically deemphasized on the site plan to provide purposeful separation from the car
- Started by a small group of interested households and developed through participatory processes that strengthen community bonds within the group, typically taking 2-4 years
- Initial housing prices are comparable to traditional single family homes, while costs of living can be substantially less (pp. 6-14)

Indeed, McCamant and Durrett (1988) drew heavily on these Bofaellesskaber characteristics while drafting a definition for Americanized cohousing, only adding that most Danish cohousing communities consist of between 15 and 33 households (p. 12).

Insight on the shape and form of American cohousing communities can be found in Chris and Kelly ScottHanson’s (2005) *The Cohousing Handbook*, a guide for households interested in starting a cohousing community in North America. In their manual they describe characteristics of American cohousing developments, and with a later publishing date than the previously cited

works they are able to make accurate claims about how American cohousing communities have changed since their introduction in the late 1980s. Notably, their descriptions of American cohousing communities vary little from the earlier works' descriptions of Bofaellesskaber.

In fact, the only significant difference between American and Danish cohousing would be the ownership structures utilized during and after development. In 1981 in Denmark, the Danish "Ministry of Housing enacted legislation making it easier and less expensive to finance cohousing... by providing government-sponsored, index-linked loans for new construction to any group establishing a housing cooperative of at least eight units... [decreasing] the initial investment and monthly mortgage payments" (McCamant and Durrett, 1988, p. 143). Helpful legislation such as this is currently absent in the United States, so therefore interested households have to rely on much more complicated process of ownership transfer. Initially, an interested group will typically form a legal corporation that seeks out a suitable property for development, contracts with necessary professionals during the course of development, and finally disbands after the cohousing community is developed as a "condominium" complex. The households then have a priority opportunity to purchase the resulting cohousing (legally, condominium) units as desired and the rest are sold to families interested in a completed cohousing community. It may be that barriers such as these have inhibited cohousing communities from becoming more common in the Seattle Metropolitan Area. If this paper's market research indicates that there is a great unfulfilled demand for cohousing, America's complicated ownership system may be the reason why.

Despite this minor difference in ownership structures, Chris and Kelly ScottHanson (2005) note a mutual trend that was first detected by one of the earliest Danish Bofaellesskaber boosters, Jan Dudmand-Hoyer—the distinct progression of cohousing designs towards smaller and smaller

proportions of private spaces in areas that are increasingly familiar with the cohousing concept (p. 129). That is, as a region becomes more familiar and comfortable with the idea of sacrificing privacy for the sake of increased social interaction, cohousing designs will progressively decrease household allotments of private space and correspondingly increase the size of communal facilities such as the common house. This trend has been observed in both Denmark and portions of the United States, and is frequently described as “generations” of cohousing development.

Interestingly, the climax of cohousing evolution thus far has been the establishment of cohousing villages where multiple cohousing communities are clustered and interact. While Denmark has cohousing villages numbering 48 separate cohousing developments (of approximately 25 households each), New York’s “Eco-Village at Ithaca” contains three cohousing communities, a highly indicative sign of Denmark’s noticeable head-start in regards to the cohousing generational growth cycle. In order to benefit fully from utilization of the cohousing model, North America clearly has catching up to do, and the commercial development of cohousing complexes could help get us there faster.

Another late-generation trend of critical importance to this paper’s subject—commercial cohousing development—is noted by Chris and Kelly ScottHanson (2005), “[early American cohousing communities] were developed exclusively by members as a group... it should be noted that this was the only option available at the time” (p. 46). However, as a region becomes more familiar with cohousing, private developers are increasingly willing to take on risk and become a member of a cohousing development project. They may do so in an assorted array of capacities, taking on varying amounts the projects risk (and thus, control). However, in doing so it is possible that reduced residential involvement in the development process may rob the community of valuable decision-making experiences and other challenges that contribute substantially to

important group cohesion. Stannard (1992) believes in this principal and points to the challenges that commercially developed communities might face as a result:

Though it may take a tremendous amount of time and effort to organize and plan a community, this invested time may ultimately result in a more cohesive community. Working through decisions and disagreements gives groups the opportunity to build social relationships that are vital for creating a sense of community. This initial planning and organization process can be characterized as an “initiation” for a new resident group” One of the latest trends in Danish Bofaellesskaber is the speculatively designed and built bofoellesskab. These communities are designed and built without the aid of a resident group. Residents then move into the Bofaellesskab with the expectation that, over time, they will unite to form a “community.” The ultimate success of these speculatively designed communities cannot be predicted. (p. 9)

Writing in 1992, “speculatively designed” cohousing communities were a relatively new occurrence and there were likely multiple reasons to be skeptical of them. However, multiple American cohousing projects have been completed with varying amounts of developer involvement, and Chris and Kelly ScottHanson (2005) report that many of these have been met with success. Further research into the success of these projects and the “speculatively designed” Danish Bofaellesskaber project would be useful in evaluating whether the hastened propagation of cohousing developments can still result in the same outcomes of resident-designed developments. This information would be critical for developers seeking to know if they could profit in a market of buyers interested in the multiple beneficial aspects of residentially-designed cohousing developments.

Merits of Cohousing

If the development of more cohousing units is justified from a profitability standpoint and private housing developers react in kind, the seeming majority of cohousing researchers that have concluded that cohousing is a desirable housing option will have many reasons to rejoice.

Multiple researchers have found reason to praise cohousing as a development pattern, and much of that adulation offered is associated with cohousing's potential environmental benefits. For example, Meltzer (2000) found after observing eighteen cohousing communities and 346 households that cohousing residents are more likely to engage in behavior that reflects their environmental concern, perhaps due to the reinforcing effect of living in a community with shared values. Additionally, it is quite possible that "village-size" economies of scale can be utilized more effectively in cohousing communities when applied to environmentally beneficial activities like local food production, communal transportation, and off-grid energy production.

Environmental benefits aside, first and foremost, most residents are typically drawn to cohousing communities out of a desire for just that—community. These residents feel a lack of community in their lives, something that Robert Putnam (2000) has chronicled in his book, *Bowling Alone*, which documents the recent collapse in civic engagement while describing in a variety of ways what he views to be evidence of a tremendous downturn in American community life. Putnam uses the expression "social capital" to describe the types of bonds and associated benefits that are available to those in various forms of social relationships. As social relationships degrade, social capital is devalued and depreciates. Cohousing, and the community design's social and spatial structures specifically oriented towards increasing social interaction, is seen by many as one method for reversing this trend and producing valuable social capital. For example, Stannard (1992) suggests that cohousing may be one solution to the breakdown of the American extended family, in that community living can potentially act as a substitute for family members

missing in a household, whether that is a divorced parent, a complete absence of children, or the distant grandparents living somewhere far away, like Florida (p. 184).

This “extended family” situation does much to alleviate many of the criticisms voiced by Dolores Hayden (2002) in *Redesigning the American Dream: Gender, Housing, and Family Life*. In her book Hayden argues that the spatial layout of many American communities necessitate full-time homemakers, a task that typically is reserved for women who are oppressed by that responsibility combined with a recent obligation to earn second incomes for their households. Fortunately, Jackson (2005) argues that cohousing developments might be considered more equitable in terms of gender since they encourage the communal completion of domestic work rather than relegating it to females as has been the tradition in America and much of the world. This system for allocating domestic labor communally also increases productivity by allowing food preparation, childcare, and other domestic work to be completed at a more efficient “village-size” scale. Finally, the intentional allocation of specifically defined domestic chores values domestic labor, helping to establish validity and status that domestic workers have historically gone without.

For the same reasons that cohousing can benefit married women, Hasell and Scanzoni (2000) believe that cohousing can benefit single-parent households that are often dependent on public housing projects. Additionally, they suggest that implementing the cohousing model in the development of future American public housing projects might have the effect of reducing living costs for residents. Supporting this claim are multiple cohousing projects that utilize land trusts and other affordable housing strategies to both subsidize the cost of rent and/or ownership for residents. Examples of these projects include: OPAL land trust on Orcas Island, WA, Tierra Madre in New Mexico, and Jackson Place Cohousing in Seattle, WA. While these instances of

newly developed cohousing have had great success, Kozeny (2005) has pointed out that non-government affordable cohousing developments have been created by innovative communities. Essentially, through organization and intensive group collaboration, neighbors in existing suburban developments have retrofitted their communities to resemble the cohousing spatial arrangement. In this way they have increased cohousing's affordability through the avoidance of high costs associated with new development.

Prevalence of Cohousing

As was previously discussed, cohousing came to the United States in 1988 when McCamant and Durrett published *Cohousing: A Contemporary Approach to Housing Ourselves* and introduced Americans to the idea of living in this style of intentional community. However, these ideas were not original, but were instead imported from a European country that McCamant and Durrett studied in—Denmark. Stannard (1992) makes the following points about cohousing's rise in Denmark:

- Began in the late 1960s in response to demographic shifts in Denmark towards single-parent and two-earner households, and encouraged by a conducive social atmosphere
- Despite some initial resistance, governments at all levels were typically encouraging due to previous involvement in social housing, and even held competitions encouraging the development of housing alternatives like *Bofoellesskaber* (pp. 5-6)

Today, cohousing units in Denmark represent an estimated 10% of all new housing units being developed in the country (Cohousing Association of the United States, 2007). This development pattern has slowly spread across Europe (Northern and Western Europe specifically), into countries that include: Germany, The Netherlands, France, Britain, Sweden and Norway. Since introduction to North America in the late 1980s, cohousing has slowly gained in popularity and prevalence, while gaining pace in recent years. As of June 11, 2008, Cohousing.org, the predominate website for United States cohousing communities, shows that 224 communities are in

the process of development or have already been completed in the United States alone.

Predictably, much of this development is occurring in politically liberal regions of the country commonly known for progressive ideas and culture. In fact, with 19 communities developed or in development, Washington State is second only to California, magnifying the importance of studying market trends in Seattle specifically.

Methods

Introduction

Despite Washington's relative "abundance" of cohousing communities, there are only three cohousing developments known to exist in the Seattle metropolitan housing market, housing a combined total of approximately 75 households. Developing primarily over the last decade, cohousing is a relatively new phenomenon in the Seattle area. However, anecdotal evidence and personal experience has suggested that demand for the limited supply of cohousing in the entire Pacific Northwest region is high. The lack of commercial suppliers of cohousing in the face of such apparent demand is puzzling and worthy of examination. Acknowledging the abundance of pro-cohousing literature and research already in existence, this paper assumes the validity of that previously discussed research in making its arguments. Instead, the goal of this research is to contribute to a question that has long vexed this area's many cohousing proponents: why has such a seemingly beneficial housing practice failed to become widespread in the Seattle Metropolitan Area? One obvious potential barrier to the proliferation of cohousing is public awareness, but that important subject is not within the scope of this paper. Instead, research has been concentrated on analyzing the real estate purchasing preferences of the Seattle metropolitan housing market through a detailed examination of real property valuations of existing cohousing and condominium developments between 2003 and 2007. By comparing the shifting prices of

cohousing units relative to similar condominium units, this research may be able to make valid claims regarding trends in market demand for the few Seattleites who already know about cohousing.

Data Sources

Table 1 - Data Sources¹

File Name	Date Accessed	Web Address
Complex Database	5-10-08	http://www.metrokc.gov/Assessor/download/download.asp
Unit Database	5-10-08	http://www.metrokc.gov/Assessor/download/download.asp
Value Database	5-18-08	http://www.metrokc.gov/Assessor/download/download.asp
Interview	5-22-08	Phone Conversation
Real Property Assessments	5-22-08	http://www.metrokc.gov/assessor/RealProperty.htm

The primary sources of data for this research were accessed from the King County Assessor's website (Table 1) and through personal conversation with staff in the Assessor's office. Multiple databases are accessible from this website, but three proved particularly useful for this study. First, the Complex Database provided a catalog of all the condominium complexes in King County and served as a starting point for selecting cohousing and condominium complexes for further in-depth study. Since cohousing communities frequently utilize condominium ownership structures and are thusly legally classified as condominium complexes, the Complex Database was also used to identify cohousing communities for study. The only three cohousing communities selected were Jackson Place Cohousing in the International District, and Duwamish Cohousing and Puget Ridge Cohousing in West Seattle². These communities were selected to serve as the cohousing group based on their status as the only known cohousing developments in Seattle.

¹ Please note that File Names have been modified for presentation purposes. Please see Appendix 1 for a key linking original File Names and their corresponding substitutions used in this paper.

² To view a map of the location of each development please see Figure 2, and for maps depicting the boundaries of the districts, please see Figures 3 and 4 (print Google Earth maps defining these areas and use those as figures).

Table 2 - Condominium and Cohousing Group/Subgroup Descriptions

<i>Category</i>	<i>Condominium Complex³</i>	<i>Cohousing Community</i>
Seattle (Both Subgroups Combined)	Condominiums 1, Condominiums 4, Condominiums 3, Condominiums 5, Condominiums 6, Condominiums 8, Condominiums 7, Condominiums 2	Jackson Place Cohousing, Duwamish Cohousing, Puget Ridge Cohousing
International District	Condominiums 8, Condominiums 7, Condominiums 2	Jackson Place Cohousing
West Seattle	Condominiums 1, Condominiums 4, Condominiums 3, Condominiums 5, Condominiums 6	Duwamish Cohousing, Puget Ridge Cohousing

Since the Complex Database was not organized by the location of various condominium complexes, it was necessary to identify particular addresses for condominium developments near the selected cohousing communities. This was done by utilizing the website Zillow.com to search for sales of condominium properties built between 1990 and 2001 and located in the West Seattle subgroup boundary or the International District subgroup boundary⁴. Once suitable condominium complexes were identified, their addresses were then cross referenced with the Complex Database to provide the same data available for the cohousing developments and to establish a complete data set for the condominium group. For a summary of these developments and their descriptive

³ Since complex names were changed for clarity, please view Appendix 1 – Name Key for the original names of the complexes as found in King County Databases.

⁴ To view a map illustrating the boundaries of the International District and West Seattle subgroups, please see Figure 2.

statistics please see Appendix 2, Seattle Cohousing Data⁵. To see how these condominium complexes and cohousing communities were organized, please see Table 2.

Once cohousing and condominium groups were defined, the Unit Database was accessed for the detailed analysis of amenities available to each unit within the condominium and cohousing developments. This is very important because it allowed a preliminary screening to take place which would filter out dissimilar condominium complexes that contain units with amenities such as multiple bathrooms, an abundance of square footage, premium views, and/or parking options.

Having assembled a detailed set of data on eleven different developments and their many respective units, appraisal data illustrating variations in property valuations over time was required. This data was accessible in the Value Database, which contains the appraised value records for each King County condominium unit's land and improvement assets, with an entry for every year on average. Once the relevant data had been extracted and placed into individual spreadsheets grouped by development, calculations were made that resulted in figures for annual appreciation rates for each unit's land and improvement assets. In addition to the annual appreciation figures, a five year appreciation rate comparing 2007 values to 2003 was given for every unit in each development.

With appreciation rates calculated for all individual units, summary appreciation rates averaging every unit within a development were created and allocated by development. Once each development had its appreciation rates calculated, a summary chart was created for comparison purposes.

⁵ For Appendices 2 and 3, please access relevant postings on Group 4's discussion board via Blackboard in order to download large Excel Spreadsheet files.

In order to effectively compare the developments' summary appreciation rates, it is necessary to group them in a logical manner so that comparisons can convey the most information (see Figure 1). The summary table was therefore organized with multiple totals at the bottom that average the summary appreciation rates for various configurations of developments. First, an average rate was prepared for all of the Seattle developments to set a baseline. Next, average rates were prepared for all of the Seattle Condominium developments and one for all of the Seattle Cohousing developments as well. Since there may be variations in appreciation rates between districts of Seattle, the various developments were also divided into two subgroups depending on the district that they were located: International District or West Seattle⁶⁷. With subgroups defined, an average rate was given for the West Seattle Condominium developments, the West Seattle Cohousing developments, the International District Condominium developments, and the International District Cohousing development. This summary data is available in Appendix 3⁸, Appraisal Database, and a more simplistic form can be seen in Figure 1.

Results

Exceptions

During the course of data collection, several obvious outliers were readily visible and warranted further examination before inclusion in the final data set. These are listed below:

- In Duwamish Cohousing, appraised land values go up a certain amount in 2004 and then go down the exact same amount in 2006, not changing in any other year. Appraised improvement values fluctuate as normal, however. Since improvement values are the primary subject of study, the entire data group was included as normal.

⁶ To view a map of the location of each development please see Figure 2, and for maps depicting the boundaries of the districts, please see Figures 3 and 4 (print Google Earth maps defining these areas and use those as figures).

⁷ For a tabular breakdown of the composition of each subgroup, please view Table 2.

⁸ For Appendices 2 and 3, please access relevant postings on Group 4's discussion board via Blackboard in order to download large Excel Spreadsheet files.

- In complex Condominiums 3, unit 0010 exhibits uniquely high percentages of improvement value appreciation, approximately four times that of other units, most of which occurred in 2006 and 2007. Since this discrepancy did not result in a complex average improvement value appreciation rate significantly higher than other complexes, the entire data group was included.
- In complex Condominiums 1, unit 0010 realized nearly zero percent appraised improvement value appreciation over the period studied. This is especially significant since unit 0010 was initially valued about 3 times as highly as other units within the complex. Substantially, this may modestly contribute to an abnormally low average appraised improvement value appreciation rate for the period studied. When contacted via email for further details, the King County Assessor's Office failed to provide an explanation in time for inclusion in this study. Due to a lack of advice to act upon, and because the medium-size of the complex (18 units) would offset to a large degree this variation, the data feature was included as usual.
- In a previous data set, nearly all of Jackson Place Cohousing units' appraised land values skyrocket up approximately 270% in 2004. Additionally, unit 0170's appraised land value actually decreases by about half a percent while its appraised improvement value showed the largest gain in 2004 within the complex at about 672% growth. Upon further review of available data for inclusion in the final set, additional Jackson Place Cohousing entries were found for 2003 that significantly reduced the dramatic differential in prices. While this did have a normalizing effect, the appreciation rates exhibited in the data were still among the highest of all complexes sampled. Again, the King County Assessor's office was queried on the subject but failed to provide an answer in sufficient time for inclusion

in the study. Lacking official instruction on the subject, the more realistic of the 2003 data entries were included in the final data set. While these are an improvement over the previous entries utilized, they could still have potentially decisive impacts on the study's results.

- In complex Condominiums 6, unit 0010's appraised improvement value increased by about 30% while every other unit in the complex increased by only about 10-15%. Since the medium-size of the complex (18 units) would offset almost entirely this relatively small variation, the data feature was included as usual.
- In complex Condominiums 7, unit 0010's appraised improvement value increased by about 60% and 27% in 2004 and 2007, respectively, just as unit 0020's appraised improvement values increased by about 144% and 27% in those same years. In contrast, the rest of the complex's units appraised improvement value depreciated in 2004 and 2005, while appreciating in 2006 when the appraised improvement value of units 0010 and 0020 remained practically stagnant. Since complex Condominiums 7 had appreciation rates that were among the lowest in the study and featured 59 units that could sufficiently offset the two variations, the data features were included as normal.

Implications - Rate of Return as Indicator of Unmet Demand

After processing the data, cohousing improvements appreciate at a higher rate than condominium improvements in the International District subgroup, the West Seattle Subgroup, and Seattle as a whole. However, the improvement appreciation rate only takes into account the appraisal data for the physical structure of a unit, ignoring the value of the land below it.

Curiously, the appreciation rates for land and improvement values combined almost always favor

condominium developments, although not necessarily to the point where condominium land and improvement appreciation actually outpaces that of cohousing developments.

It may be that the presence of a condominium development in an area increases the area's market value, while cohousing developments do not have this effect. This could point to cohousing's suitability for the maintenance of affordable housing stock. However, since homeowners invest in both land and improvement, they may not have much reason to become extremely excited over cohousing's land and improvement appreciation rates which only moderately outpace the condominium rates in Seattle as a whole. Specifically, the land and improvement appreciation rates for cohousing communities were higher in the International District subgroup, but fell just below the condominium rates in the West Seattle subgroup.

Substantially, the results of this research do show that cohousing units appreciate at a higher rate than condominium units when improvement values are considered alone and when combined improvement and land values are considered. According to microeconomic theory, prices exist as a function of supply and demand curves. As the supply of a given product increases, the prices for that product decrease in response. Conversely, as the demand for a given product decreases, the price of the product also decreases. Since Seattle cohousing supplies have remained relatively constant over time (as a portion of the city's total housing stock—barely significant), it was hypothesized that increased prices on cohousing units would serve as an adequate indicator of growing consumer demand. According to this research, the higher rates of appreciation seen in cohousing units do seem to suggest that the demand for cohousing units is not being met at the same rate that the demand for condominium units is. Given this information, the commercial development of cohousing complexes is seemingly much more justified and warrants further research.

Limitations/Future Research

This research was both limited in terms of resources and sample size, so all conclusions must be regarded with some degree of skepticism. While cohousing communities are still rare in the United States and have only existed for a short period of time, it would definitely be desirable to expand the scope of this study to include other urban areas and a longer timeframe. Since researchers are not capable of looking ahead into the future, a wider sample might be obtained in the considerably more mature Danish cohousing market. While in Denmark, it would perhaps be even more beneficial to research examples of cohousing communities that have been developed commercially. In addition to analyzing their market performances, it would be useful to perform an elaborate qualitative study of the communities' functioning. This could help address some concerns voiced by Stannard (1992) and others regarding "speculatively" built cohousing communities to foster the same level of group cohesion that is found in resident-built communities.

It is also worthwhile to note that the total quantity of data collected was not able to be processed fully. For example, the detailed Complex Databases and Unit Databases are full of valuable information that may offer explanations for variations in appreciation performance besides the cohousing/condominium distinction offered here. Specifically, it would be useful to consider whether unit amenities such as carports, scenic views, bathrooms, and square footage produced stronger correlations with unit value appreciation than the cohousing/condominium trend identified in this research. Future researchers should be able input this information into a statistics software package and perform analyses to figure out the strength of correlations for all of these interesting variables.

Finally, perhaps the most important remaining question is whether market demand has been the inhibiting force in preventing commercial developers from supplying cohousing communities. It is entirely possible that consumer awareness is a more significant force in the spread of the cohousing community model. Entirely new research should be conducted to analyze cohousing awareness in both the public at large and within the real estate development community. Both quantitative and qualitative data should be sought in order to better understand levels of awareness and specific perceptions of cohousing, respectively.

Conclusion

As was established in the literature review, cohousing communities seemingly offer many important benefits to their residents: environmental sustainability, economic security, social capital production, and gender equity. Those benefits aside, this research was aimed at discovering whether or not cohousing units were valued in a comparable manner to condominium units within the Seattle Metropolitan Area's real estate market. Interestingly, the cohousing units outperformed the condominium units in terms of appreciation, perhaps indicating that there is a significant unmet demand for cohousing units in the Seattle area.

It's important to note that while condominium laws were first written in the 1960s, the ownership structure itself only had just begun to flourish in the 1970s (U.S. HUD, 1980). Condominiums, appreciation rights aside, now occupy a rapidly expanding segment of the American housing market. Should cohousing developments continue to offer rates of appreciation similar to condominiums, they may one day occupy a sizable portion of the market as well. At the very least, cohousing communities may become common enough that local, state, and/or federal governments will feel compelled to streamline the development process through legislation aimed at clarifying the ownership structures of forming cohousing communities. When this occurs, the

United States will likely experience the same boom in cohousing development that Denmark did, and more of its citizens will be able to enjoy cohousing's substantial benefits as a development pattern.

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