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More room for cohousing in the United States: understanding diffusion potential by exploring who knows about, who likes, and who would consider living in cohousing

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ABSTRACT

Early adopters of cohousing have been relatively homogenous in many regards. For example, most are white, politically liberal, Democrat, and have a post-graduate education; females are also overrepresented compared to the general population. Little is known about the degree to which this lack of diversity is due to lack of broader appeal, lack of awareness or access, or other factors. The present study sought to further understanding of this issue. Through a diffusion of innovations lens, we explored a wide range of potential demographic, socioeconomic, and attitudinal predictors of knowledge of and interest in cohousing among the general US population, via an online survey of 157 individuals. Regression analysis revealed that being older, not heterosexual, more educated, and voting in the 2012 presidential election predicted greater knowledge of cohousing, and being liberal and a working woman predicted interest in cohousing. Findings are discussed in terms of implications for understanding the profile of cohousing early adopters and potential for the movement to expand to broader segments of the US population.

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Cohousing; collaborative housing; diffusion; adoption; marketing

Introduction

Housing in the US is dominated by suburban single-family detached homes. There have been a myriad of criticisms of this development pattern. For example, suburban "sprawl" has been blamed for contributing to the breakdown of social institutions (Putnam, 2000), environmental degradation (Johnson, 2001), and the lack of physical activity and obesity (Frumkin, Franck, & Jackson, 2004). The detached single-family dwelling has been criticized for being unsupportive of current demographics of household composition (Franck & Ahrentzen, 1989) and reinforcing stereotyped gender roles (Hayden, 1982, 2002). Although there are exceptions to this characterization of suburbia, there is general agreement that isolating development patterns became ubiquitous in the US after the World War II.

Movements and concepts, such as New Towns (Forsythe, 2005) and the more contemporary New Urbanism (Congress for the New Urbanism, 1999; Katz, Scully, & Bressi,

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1994) and smart growth (Daniels, 2001), are reactions against this pattern, seeking to counter alienation by adopting design strategies at various scales that promote community connection and provide access to nature. The current paper focuses on another similarly motivated movement: cohousing. Cohousing differs from the aforementioned top-down strategies in that it is grassroots, smaller in scale, and imposes alternative social structures (e.g., collaborative design and management) in addition to physical design strategies.

Understanding consumer demand for these alternative housing models can support policy and industry practices to increase their diffusion. Demand for and diffusion of cohousing is especially complicated due to the larger role that consumers play in the development process. Creating a cohousing community is resource-intensive in a number of ways (Boyer, 2017; Williams, 2008).

To date, cohousing has been adopted by a fairly homogenous niche market, but little is known about the degree to which this lack of diversity is due to lack of broader consumer awareness, appeal, or access to the required resources. A recent study by Boyer and Leland (2018) provides the first evidence stating that there is broader interest in cohousing among the US general population, beyond the demographics that characterize early adopters. The present study furthers the understanding of these issues by exploring demographic and psychographic predictors of multiple aspects of the cohousing adoption process: knowledge of cohousing, appeal of the idea of cohousing, and likelihood of considering living in cohousing. First, we briefly overview the US cohousing and the relevant literature.

Overview of US cohousing

The cohousing model originated in Denmark in the 1960s. Architects McCamant and Durrett (1994, 2011) brought the concept to the United States in the 1980s. The Cohousing Association of the United States (October 4, 2015) defines cohousing as follows:

> Cohousing is an intentional community of private homes clustered around shared space. Each attached or single family home has traditional amenities, including a private kitchen. Shared spaces typically feature a common house, which may include a large kitchen and dining area, laundry, and recreational spaces. Shared outdoor space may include parking, walkways, open space, and gardens. Neighbors also share resources like tools and lawnmowers.
>
> Households have independent incomes and private lives, but neighbors collaboratively plan and manage community activities and shared spaces. The legal structure is typically an HOA, Condo Association, or Housing Cooperative. Community activities feature regularly-scheduled shared meals, meetings, and workdays. Neighbors gather for parties, games, movies, or other events. Cohousing makes it easy to form clubs, organize child and elder care, and carpool. (http://www.cohousing.org/what_is_cohousing)

Most cohousing communities are legally organized as condominium or homeowner associations (CoHousing Solutions, n.d.; Fromm, 2000). With these arrangements, each household owns their private lot and/or home and all residents jointly own the common property and facilities.

According to the cohousing directory on the Coho/US website (data provided by the Fellowship for Intentional Communities, 2010), there are currently 165 established

cohousing communities in the US. They are more concentrated on the coasts and can be urban, suburban, or rural, though they tend to be located near large cities or in university towns (Margolis & Entin, 2011). Most are multigenerational, though there are about 11 established senior-only cohousing communities and more in the forming stages. Most cohousing communities are new build developments, but some are adaptive reuse (e.g., Swan's Market in Oakland, California) and retrofit (e.g., N Street Cohousing in Davis, California).

Research has pointed to a variety of cohousing benefits. The most oft-cited benefits relate to social support, including opportunities for socializing, support, sharing chores, sharing expertise, living with people with similar interests, interdependent living, sense of belonging, self-esteem, and well-being (Markle, Rodgers, Sanchez, & Ballou, 2015; Williams, 2005). Cohousing may also promote civic engagement (Poley & Stephenson, 2007) and political participation via practice exercising quasi-political skills in the context of cohousing (Berggren, 2013, 2017). Research also points to environmental benefits of cohousing (e.g., Hendrickson & Wittman, 2010; Kirby, 2003; Meltzer, 2000, 2005; Moos, Whitfield, Johnson, & Andrey, 2006; Sanguinetti, 2014); the size and cooperative culture of cohousing is conducive to pro-environmental practices, such as obtaining renewable energy, growing food, and recycling.

Who lives, or might want to live, in cohousing?

The Cohousing Research Network (CRN; cohousingresearchnetwork.org) conducted a nationwide survey of cohousing households in 2012, with 528 adult respondents from 116 communities, which constitutes the largest and most representative source of demographic data on cohousing residents to date (unpublished data from Cohousing Research Network, 2017; see Sanguinetti, 2014, 2015; for methodology). These data are summarized in Table 1, alongside comparative data for the US general population. Compared to the general population, cohousing adopters are disproportionately home-owners, highly educated, Democrat, White, female, and older (particularly more are 60 or older). Income would likely be higher among cohousing residents if not for the overrepresentation of retired persons.

These characteristics reflect consumers who learned about the concept of cohousing, liked it, and had the resources necessary to access it, among other supportive circumstances. Thus, they may not represent the characteristics of a broader segment of the population that is interested in cohousing but unable to access, or would be interested if they knew about it. There has been almost no published research into individual characteristics that predict awareness of and interest in cohousing (the single example will be discussed at the end of this section). Several comparative studies also have implications for what such research might find, which we now describe.

Using data from the previously described 2012 CRN study, Sanguinetti (2015) compared the residents of retrofit cohousing communities (those that grow over time in existing residential developments) with the residents of traditional cohousing (new build or adaptive reuse developments that start from scratch, involving a full group of members in the planning process who move in all at once). Residents of retrofit cohousing included more young people, full-time students, renters, racial minorities, single householders, and households with fewer financial assets. Retrofit

Table 1. Characteristics of US cohousing residents compared to US general population.

Resident or household characteristic	US cohousing population: From CRN 2012 survey (N = 426–473)	General US population: 2010 US census (unless otherwise noted)
Age	41% ≥ 60	25% ≥ 60
	24% 50–59	19% 50–59
	21% 40–49	19% 40–49
	12% 30–39	18% 30–39
	2% ≤ 29	19% 20–29
Gender	72% female	51% female
	28% male	49% male
Race and ethnicity	95% White	73% White
	1% Black	13% Black
	2% Asian	5% Asian
	2% multiple races	9% multiple races
	2% Hispanic or Latino	16% Hispanic or Latino
Sexual orientation	86% heterosexual	92% heterosexual[a]
	7% homosexual	3% LGBT[a]
	5% bisexual	
	3% other	4% other[a]
Relationship status	51% married	50% married
	23% divorced	11% divorced
	11% never married	31% never married
	10% long-term relationship	0% long-term relationship
	5% widowed	6% widowed
	1% separated	2% separated
Children in home	63% no	66% no
	37% yes	34% yes
Household size	25% single resident	27% single resident
	75% multiple resident	73% multiple resident
Housing tenure	89% own	65% own
	11% rent	35% rent
Employment	62% employed	59% employed
	6% unemployed	5% unemployed
	1% disabled	15% disabled
	31% other	21% other
Income	1% ≥ $250,000	2% ≥ $250,000
	7% $150–249,999	7% $150–249,999
	17% $100–149,999	12% $100–149,999
	47% $50–99,999	29% $50–99,999
	13% $35–49,999	14% $35–49,999
	10% $20–34,999	16% $20–34,999
	5% < $20,000	19% < $20,000
Education	66% Graduate degree	11% Graduate degree
	28% Bachelor's	18% Bachelor's
	4% Some college	21% Some college
	2% Associate's	8% Associate's
	0% no college	43% no college
Political affiliation	83% Democrat	34 % Democrat
	1% Republican	29% Republican
	16% Independent	33 % Independent

[a]Source: Gallop, 2012

cohousing residents did not differ from traditional cohousing residents in terms of political affiliation or the level of education. Thus, the retrofit model may mitigate some barriers to access for a broader group of interested consumers by being less resource-intensive, but more ideologically diverse consumers may not be interested in either cohousing model.

The social support cohousing offers may be particularly beneficial for certain demographics. For example, working parents, and especially women, may especially benefit

from social support features of cohousing that help balance household labor and promote gender equality, such as shared meals (Sullivan-Catlin, 2014; Toker, 2010; Vestbro & Horelli, 2012) Toker (2010) found that, compared to new urbanist developments, cohousing attracts more women with more egalitarian gender ideologies and unconventional household types (e.g., single parents, dual-earner couples, single women living alone, and single mothers with their children). Another demographic for whom cohousing may be especially relevant is the aging population. Senior cohousing has received much recent attention as a model to support well-being, and aging in place through emotional support and activities of mutual assistance (e.g., doing errands, driving, cooking, or going for a walk with a neighbor), downsizing, and safety (Borgloh & Westerheide, 2012; Choi, 2004; Glass, 2009; Glass & Vander Plaats, 2013; Kang, Lyon, & Kramp, 2012).

Markle et al. (2015) compared cohousers with demographically similar individuals who were interested in cohousing (recruited from a US national cohousing conference). Their aim was to assess levels of social support. They found that cohousers gave and received more socially supportive behaviors compared to their peers who were not yet living in cohousing, though other aspects of perceived social support did not differ.

Finally, Boyer and Leland (2018) conducted a study with similar aims to the present research. They collected data via the 2016 Cooperative Congressional Election Study to assess interest in cohousing among a nationally representative sample. Specifically, they inserted a brief description of cohousing and the following question into the online survey for a subset of 1,000 respondents: "Assuming it was within your price range, and close to the city or town where you currently live, how interested would you be in living in a cohousing neighborhood?," with a response scale from 1 (not at all interested) to 5 (very interested). Multiple regression analysis revealed that many characteristics of the current US cohousing population (gender, age, race, and education) did not predict interest in cohousing among this sample. Variables that did predict interest included being a widow/er, participation in the sharing economy, lower income, and liberal ideology.

Present research

Boyer and Leland concluded that "the slow diffusion of cohousing is likely the consequence of inaccessibility (rather than low appeal)" (p. 2). However, general appeal of the idea of cohousing and interest in actually living in cohousing are different stages in the adoption decision process (Rogers, 2003). Boyer and Leland measured the latter, but it is also important to gauge public opinion regarding general appeal of the idea of cohousing. Regardless of immediate interest in living in cohousing (which is impacted by a myriad of factors, including just not wanting to move at all), general valence of consumers' attitudes toward cohousing has implications for NIMBYism, and potential interest in moving to cohousing should their living circumstances change. There will be groups of consumers that find cohousing to be acceptable, even quite positive, but not want it for themselves at the present time.

Another aspect of the adoption decision process is awareness, or knowledge, of cohousing. Lack of awareness of cohousing could be as significant a barrier to adoption as lack of material resources (most notably, money). Thus, discussions of inaccessibility should also consider knowledge barriers. There will be groups of consumers that are

unaware or have misconceptions of cohousing, but would be interested if they were (more) familiar with the idea.

The present research builds on Boyer and Leland (2018) by exploring demographic and attitudinal predictors of multiple aspects of the adoption decision process. We use as a framework Rogers' (2003) concept of the intrapersonal innovation-decision process, part of his Diffusion of Innovations Theory, which details how individuals adopt innovations in five stages: Knowledge, Persuasion, Decision, Implementation, and Confirmation. We focus on the first three, which describe aspects of the process leading up to the decision to adopt or reject an innovation:

(1) **Knowledge Stage**: Awareness and understanding of the innovation
(2) **Persuasion Stage**: Attitudes regarding the degree to which the innovation aligns with one's needs or values
(3) **Decision Stage**: Actions leading up to the choice to use/acquire/purchase the innovation or not. In our case, we measure this as likelihood to consider living in cohousing.

Data available on characteristics of cohousing residents reflect the culmination of the Decision Stage; cohousing residents have moved past the Decision Stage into Implementation and Confirmation.

This work is not the first application of Diffusion of Innovations Theory to cohousing. Williams (2008) assessed cohousing in terms of Rogers's framework of key innovation characteristics (relative advantage, complexity, compatibility, trialability, and observability) that influence adoption. Cohousing represents an innovation according to the theory's definition: a new idea, behavior, or product (Rogers, 2003).

Understanding predictors of knowledge, persuasion, and decision will provide insights about barriers at different points along the path to cohousing adoption. For example, if demographic predictors of Knowledge differ from predictors of Persuasion and Decision, the implication will be that lack of information about cohousing is a barrier to adoption for those groups. Predictors of Persuasion and Decision that are underrepresented in the current cohousing population will highlight groups that may face material or situational barriers to accessing cohousing. Predictors of Persuasion and Decision that map on to characteristics of cohousing residents will represent niche market characteristics.

Based on the findings summarized in our literature review, we formulated the following hypotheses:

H_1: Appeal of and interest in living in cohousing will not be significantly related to some of the basic demographics that are restricted among current cohousing adopters, i.e., age, race, education, and finances.

H_2: Working women, single mothers, and/or working single mothers will find cohousing more appealing and be more interested in living in cohousing.

H_3: Consumers with more liberal political ideology, and those who do not identify as Republican, will find cohousing more appealing and be more interested in living in cohousing.

We did not attempt to replicate Boyer and Leland's (2018) finding that widow status predicts interest in cohousing as our sample size was too small to include an adequate number for this demographic. Existing research does not point to hypotheses regarding predictors of knowledge about cohousing. With regard to these relationships, our research was largely exploratory, investigating a wide range of potential demographic, socioeconomic, and attitudinal predictors.

Method

Participants and recruitment

We conducted an online survey with two samples. First, we recruited a sample via Amazon Mechanical Turk (MTurk). Participation on Mechanical Turk was restricted to US residents with a "HIT approval rate" of 95% or higher, meaning no more than 5% of their work on Mechanical Turk had been rejected by the requester. We judged MTurk to be a reasonable sampling strategy for this study for several reasons. First, it has been shown to compare favorably to other convenience sampling methods in terms of representativeness of the general population (Berinsky, Huber, & Lenz, 2012). For example, Huff and Tingley (2015) compared MTurk samples with data from the Cooperative Congressional Election Survey (CCES), which was used to target a nationally representative sample in the cohousing interest study by Boyer and Leland (2018). MTurk participants closely resembled CCES respondents in terms geographical (urban-rural) and employment sectors. MTurk workers were younger, in particular more young Asian men and women and young Hispanic women. Voting patterns, partisan preferences, news interest, and education were also comparable when controlling for age (restricting analysis to younger participants).

We considered an overrepresentation of ethnically diverse younger US residents beneficial to our purposes of exploring broader interest in cohousing since these groups are underrepresented in cohousing. However, in order to increase the range of participants' age, income, education, and political affiliation, we deemed it appropriate to supplement the MTurk strategy with an additional method. Specifically, we used snowball sampling of personal contacts via email invitations and social media postings, with a request to forward or re-post the invitation to recipients' contacts. Contacts of the authors living in cohousing or known to be familiar with cohousing were not recruited. Table 2 reports sample characteristics compared to the general US population.

Instrument

We developed an online survey using SurveyMonkey software. A key component of the survey was a two-paragraph description of cohousing (Figure 1), accompanied by photos selected to represent the range of physical styles of cohousing communities (e.g., Figures 2–4). Our description of cohousing was more thorough and accurate compared to that in Boyer and Leland (2018) and the addition of images was considered very important in helping participants' imagine what living in cohousing could be like.

Table 2. Sample characteristics compared to US population.

	Convenience sample	Amazon mechanical Turk sample	Combined sample	
	(*N* = 43)	(*N* = 114)	(*N* = 155)	United States estimates for 2015
Sex: Female	83%	42%	53%	51%[a]
Age (*Mdn*)	44	31	33	38[b]
Household Income (*Mdn*)	$75,000–$99,999	$25,000–$49,000	$50,000 to $74,999	$53,889[a]
Education (*Mdn*)	bachelor's degree	associate degree	bachelor's degree	high school | associate[a]
Race: White	72%	73%	73%	77%[a]
Employed	65%	83%	78%	59%[c]
Married	40%	29%	32%	48%[a]
Voted in 2012 Election	72%	62%	65%	58%[d]
Political Affiliation				
Republican	19%	18%	19%	26%[e]
Democrat	28%	47%	42%	29%[e]
Independent	40%	34%	36%	42%[e]

[a]U.S. Census Bureau, n.d.-a, n.d.-b, n.d.-c.
[b]United Nations Population Division, n.d.
[c]U.S. Bureau of Labor and Statistics, 2017.
[d]2012 Voter Turnout report, 2012.
[e]Gallup, 2016.

Please read the following description of cohousing:

Cohousing is a community of private homes clustered around common space. Housing units can be single-family or attached homes (like duplexes or apartments). Common spaces can include open space, shared parking and walkways, garden, playground, storage, workshop, and a pool or hot tub. There may also be a common house with a large kitchen and dining area, guest rooms, laundry, space for community activities, office space, and exercise facilities.

People who live in cohousing sometimes participate in the design of their community. They may meet monthly or form small committees to manage common space and community activities (like gardening or construction). Neighbors sometimes share meals once or twice per week or per month; they may have potlucks at the common house or take turns cooking and cleaning. They may have community work days, parties, holiday celebrations, game nights, movie nights, and host concerts or other events for the larger community. Neighbors with similar interests may form clubs, organize childcare, or carpool to work.

Figure 1. Description of cohousing in the survey.

Innovation-decision indicators

Before being exposed to the cohousing description and photos, respondents were asked, *What do you think cohousing is? (Please use your knowledge or guess, but do not look online.)* This served as our indicator for the Knowledge Stage. We chose to use an open-ended question to measure the accuracy of respondents' knowledge of cohousing rather than asking for self-reported awareness since people may have misconceptions of the term. *Cohousing* is sometimes adopted by housing situations that do not conform to the traditional definition of cohousing, or people may confuse it with similar terms (e.g., cohouseholding) or other types of intentional community (e.g., co-ops, communes).

After reviewing the description and photos, respondents were asked questions related to the Persuasion and Decision Stages of adoption. In terms of the Persuasion Stage, they were

Figure 2. Swan's market cohousing in downtown Oakland; an example of an urban adaptive reuse cohousing development.
Source: swansway.com. Photographed by Neil Planchon. Used with permission.

Figure 3. Cobb Hill cohousing in Vermont; an example of a rural cohousing development.
Source: boatdogbilly@blogspot.com.

Figure 4. Nevada City cohousing in California.
Source: www.nccoho.org. Used with permission from CoHousing Solutions.

asked, *How do you like the idea of cohousing?* Response options were on a nine-point Likert-type scale, where 1 = I do not like it at all, 5 = Neutral, and 9 = is I like it very much.

A question aimed more toward the Decision Stage was, *What is the likelihood that you would consider living in cohousing?* Response options were on a nine-point Likert-type scale, where 1 = Not likely at all, 5 = Neutral, and 9 = Very likely. This goes beyond acceptability or positive impressions to the consideration of actually deciding to live in cohousing. Correlations among the three adoption decision process indicators are presented in Table 3.

Potential predictors of the innovation-decision process

The latter part of the survey consisted of items measuring demographics, socioeconomics, household and housing characteristics, and attitudinal and behavioral characteristics of respondents. We selected variables that characterize current cohousing adopters and those we hypothesized could predict Knowledge, Persuasion, or Decision.

Table 3. Correlations between adoption decision indicators.

	Accuracy of cohousing definition/guess	How do you like the idea of cohousing?	What is the likelihood that you would consider living in cohousing?
Accuracy of cohousing definition/guess	1	.201**	.209**
How do you like the idea of cohousing?		1	.849***

*, **, *** indicates significance at the 90%, 95%, and 99% level, respectively

Demographic items included age, sex, sexual orientation, race, and ethnicity. Socioeconomic variables included education, employment status, income (ordinal variable with ranges), and total household assets (ordinal variable with ranges). Housing and household characteristics measured included type of home (e.g., single-family detached dwelling, apartment), number of bedrooms, housing tenure (rent, own, other), number of occupants, relationship status, and children under 18 living in the home.

Attitudinal and behavioral variables included the ENRICHD 5-item scale of perceived social support (Mitchell et al., 2003); $\alpha = .910$. We used the single-item Inclusion of Nature in Self (INS) Scale (Schultz, 2001) to measure sense of connectedness to the natural environment. To gauge community involvement, we adapted an item from the 2006 Social Capital Community Survey ("The Saguaro Seminar: Civic Engagement in America," n. d.), which asks whether the respondent has been involved in any of the following types of organizations in the past 12 months: religious organization besides local place of worship; adult sports or outdoor activity club/league; youth organization; parents' association; labor union; professional, trade, farm or business association; service club or fraternal organization; and ethnic, nationality, or civil rights organization. Finally, we measured political affiliation (response options: Republican, Democrat, Independent, Other), political ideology (response options: Extremely liberal, Moderately liberal, Slightly liberal, Neither liberal nor conservative, Slightly conservative, Moderately conservative, Extremely conservative), and whether or not respondents had voted in the 2012 Presidential election (which was the most recent at the time of the survey).

Data analysis

We ran three hierarchical linear regressions models, one for each innovation-decision indicator (Knowledge, Persuasion, and Decision). Variables were entered in a series of six steps. Steps are described in Table 4. Variables were included at each step if $p < .05$ and not excluded if the p-value rose at subsequent steps in the model. Step 5 was included to explore interactions between sex, employment, relationship status, and children in the home, particularly combinations of these variables that represent progressive female roles, such as single working mother. Since these interaction variables would be highly collinear with the variables they were derived from, the plan was to remove sex, employment, relationship status, or children in the home when running Step 5; however, none of these was significant on its own in any model.

Results

Results are presented in two parts. First, we present descriptive statistics summarizing participants' responses to each of our adoption decision indicators. We then present the regression analyses, focusing on the three final models: regressing each indicator (Knowledge, Persuasion, and Decision) on all participant characteristic variables.

Descriptive statistics

We coded each participant's response to the question *What do you think cohousing is?* based on accuracy and completeness, with a score of 1 (not at all accurate), 2 (accurate

Table 4. Variables and their order of entry in the regression modeling.

Step 1: *Sample*	Amazon Mechanical Turk = 1, Convenience Snowball = 0
Step 2: *Basic Demographics*	Age (Continuous)
	Sex (Male = 1, Female = 0)
	Sexual orientation (Heterosexual = 1, Other = 0)
	Race (White = 1, Other = 0)
	Ethnicity (Hispanic = 1, Non-Hispanic = 0)
Step 3: *Socioeconomics*	Education (Ordinal, treated as continuous)
	Employment (Employed = 1, Other = 0)
	Total household income (Ordinal, treated as continuous)
	Total household assets (Ordinal, treated as continuous)
Step 4: *Housing and Household*	Housing type (Single family detached = 1, Other = 0)
	Housing size (Number of bedrooms, continuous)
	Housing tenure (Own = 1, Rent = 0)
	Household size (Number of occupants, continuous)
	Relationship status (Coupled = 1, Single = 0)
	Children (under 18) in the home (Yes = 1, No = 0)
Steps 5: *Interactions between sex, employment, relationship status, and children in home (a separate model was calculated for each of the six variables listed)*	Working woman = 1
	Working mother = 1
	Single woman = 1
	Single mother = 1
	Single working woman = 1
	Single working mother = 1
Step 6: *Attitudes and Behaviors*	Perceived social support (Continuous)
	Connection to nature (Ordinal, treated as continuous)
	Participation in community organizations (Continuous)
	Religious service attendance (Ordinal, treated as continuous)
	Political affiliation (Republican = 1, Other = 0)
	Political ideology (Ordinal, treated as continuous)
	Voted in 2012 Presidential election (Yes = 1, No = 0)

but incomplete), or 3 (accurate and complete). A score of 3 was assigned if the definition mentioned at least one architectural/physical features and at least one social characteristic (e.g., "Type of intentional community composed of private homes supplemented by shared facilities. The community is planned, owned and managed by the residents"). If only architectural or only social characteristics were mentioned (e.g., "A community of individual homes but with shared spaces"; or "A group of people collaborating to maintain their neighborhood"), we coded the response as 2, thus giving equal weight to the social and physical characteristics of the cohousing model.

Knowledge of cohousing was low. Most respondents' (67%) perception or best guess definition of cohousing was inaccurate. About one-quarter (23%) accurately described a social or physical characteristic of cohousing, and 10% gave an accurate definition involving both social and physical features.

Median and mode response to, *How do you like the idea of cohousing?* was 6, which is slightly higher than "Neutral"; $N = 157$, $M(SD) = 5.82(2.138)$. Figure 5 shows the distribution of responses. Median response to, *What is the likelihood that you would consider living in cohousing?* was 6, which is slightly higher than "Neutral", and the mode response was 7; $N = 157$, $M(SD) = 5.13(2.471)$. Figure 6 shows the distribution of

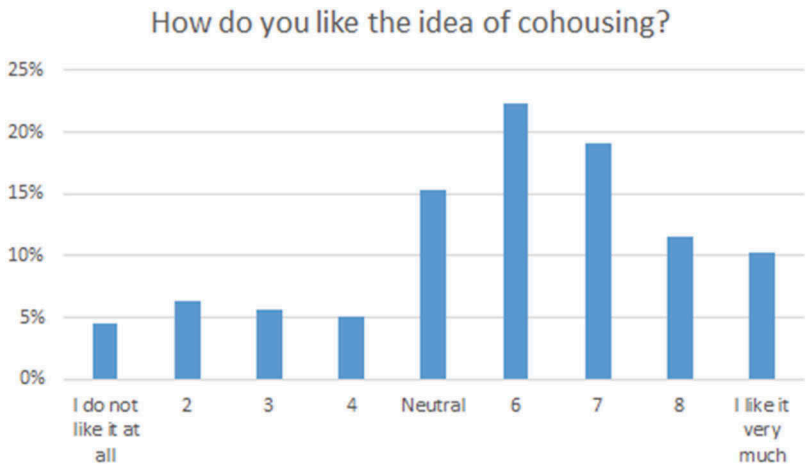

Figure 5. Distribution of responses to item related to the persuasion stage: *How do you like the idea of cohousing?*

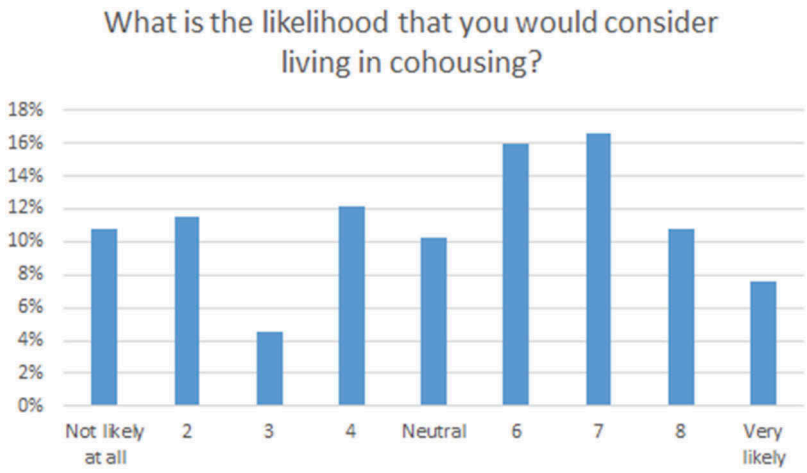

Figure 6. Distribution of responses to item related to the decision stage: What is the likelihood that you would consider living in cohousing?

responses. Note the different shapes of these distributions; about 20% of respondents disliked the idea of cohousing compared to about 40% who were not likely to consider living in cohousing.

Regression analysis

Final regression models are summarized in Table 5. Regressing *Knowledge* (i.e., accuracy of cohousing definition) on potential predictors resulted in a statistically significant final model that included four variables (R^2 = .190, F = 7.45, p < .001): Being older, not heterosexual, more educated, and voting in the 2012 presidential election predicted

Table 5. Final regression models.

	Knowledge	Persuasion	Decision
	Accuracy of cohousing definition	*How do you like the idea of cohousing?*	*What is the likelihood that you would consider living in cohousing?*
Constant	0.91 (0.282)***	6.92 (0.389)***	6.04 (0.594)***
Age	0.01 (0.004)*		
Sexual orientation (heterosexual = 1)	−0.39 (0.162)**		
Working woman = 1			0.61 (0.390); p = .12
Education	0.10 (0.043)**		
Voted in 2012 (1 = Yes)	0.26 (0.125)**		
Political ideology (Liberal to conservative)		−0.31 (0.104)***	−0.33 (0.121)***
R Square	0.19	0.057	0.07
Adjusted R Square	0.165	0.051	0.057
F	7.45***	9.11***	5.53***
N	131	151	150

Standard errors of β are reported in parentheses.
*, **, *** indicates significance at the 90%, 95%, and 99% level, respectively.

greater knowledge of cohousing. Regressing *Persuasion* (i.e., appeal of the idea of cohousing) on potential predictors resulted in a statistically significant final model that included just one variable (R^2 = .057, F = 9.11, p = .003): Identifying as more liberal predicted appeal of the idea of cohousing. Regressing *Decision* (i.e., likelihood of considering living in cohousing) on potential predictors resulted in a statistically significant final model that included two variables (R^2 = .070, F = 5.53, p = .005): Identifying as more liberal and being a working woman predicted greater likelihood of considering living in cohousing. These results provide support for each of our three hypotheses, in full (H_1) or in part (H_2 and H_3).

Discussion

Comparing findings from our regression analyses with the demographic profile of cohousing residents, there are interesting consistencies and discrepancies. Being older, not heterosexual, more educated, and voting in the 2012 presidential election predicted greater knowledge of cohousing in the regression analysis. These predictors are consistent with research on cohousing demographics that has found, compared to the general population, cohousing residents are older, more diverse in terms of sexual orientation, more educated, and more politically participatory (Cohousing Research Network, 2017). However, none of these characteristics predicted appeal of cohousing or intention to consider living in cohousing. This suggests that lack of awareness is a significant barrier to the diffusion of cohousing to broader segments of the population compared to the early adopter profile.

Although being liberal predicted appeal of cohousing and likelihood to consider living in cohousing, consistent with Boyer and Leland (2018), it did not predict knowledge of cohousing. Similarly, being a working woman predicted likely consideration of living in cohousing, but working women were no more knowledgeable of cohousing compared to others. These findings have implications for cohousing advocates, professionals and members looking to build community, with regard to marketing strategies.

Specifically, educational strategies targeting liberal groups and working women could increase cohousing adoption. This is not to say they should not also focus on educating other groups, including those with conservative political ideologies.

Identifying as Republican did not predict Persuasion or Decision indicators as hypothesized, despite the fact that Republicans are extremely underrepresented among cohousing adopters to date (e.g., 1%; Cohousing Research Network, 2017). Interestingly, the first majority Republican cohousing community (to our knowledge) has recently been established in Oklahoma. It will be interesting to see if more communities are established in that region based on Williams' (2008) hypothesis that cohousing spreads through local normative influence.

Limitations and future research

The generalizability of these findings is limited due to the convenience sample. However, results are consistent with Boyer and Leland (2018) who leveraged a rigorous nationally-representative survey to assess interest in cohousing among the US general population.

Moreover, the focus of this study is on distinguishing consumer profiles with respect to multiple aspects, or stages, of the consumer adoption decision process (Knowledge, Persuasion, and Decision) to better understand the potential for broadening the cohousing movement. Regardless of the generalizability of our findings in terms of levels of awareness and attitudes toward cohousing among the general population, this research demonstrated that consumers who are knowledgeable about cohousing, those who find the idea appealing, and those who would actually consider living in cohousing each have a different demographic profile, and comparing these profiles with that of early cohousing adopters yields important implications.

Our survey attempted to capture attitudes early on in the Persuasion Stage (general appeal), and later on toward the Decision Stage (likelihood one would consider living in cohousing). However, our scope could have been extended to include whether respondents had actually taken steps to learn more about cohousing and explore opportunities to move to an existing community or help create one. Furthermore, research into communication sources and messages about cohousing that are reaching the general population would contribute to a better understanding of the diffusion process.

Future studies of interest in cohousing and similar models of collaborative housing should consider the influence of cultural norms regarding privacy and a deeper focus on particular aspects of perceived social support that were not captured in this study. Further research is also needed to understand the greater appeal of cohousing for working women, e.g., to what degree it relates to practical benefits of social support (e.g., meal-sharing) versus the moral support of a gender egalitarian community culture.

Conclusion

This study demonstrated that there is potential for broader diffusion of cohousing in the US. Specifically, individuals who do not resemble early adopters of cohousing found the idea appealing and expressed interest in living in cohousing; however, they were less familiar with cohousing than individuals who did resemble early adopters. These findings

suggest that both lack of awareness of cohousing and the resource-intensive process of creating or finding cohousing are impeding broader adoption. The currently restricted niche market of cohousing is not solely a function of lack of broader appeal. There is a need for marketing and policy strategies to increase the US population's access to cohousing, an option that has demonstrated benefits for individuals, society, and the environment.

Disclosure statement

No potential conflict of interest was reported by the authors.

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