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DREAMING BIG AND LIVING SMALL: EXAMINING MOTIVATIONS AND SATISFACTION IN TINY HOUSE LIVING

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of the Requirements for
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I. THESIS SUMMARY

In the last 40-50 years, the USA has seen an increase in McMansions, or the ever-growing, ideal home in the suburb. The average house size is rising (1660 ft² to 2596 ft²) despite a decreasing family size (3.67 to 2.62). The average square footage per person has more than tripled (290 ft² to 893 ft²). Houses clustered in city centers and in suburbs impact the environment by increasing urban sprawl. Increased house size, ownership, length of residence, and cost, are associated with higher housing satisfaction. However, this excess, along with the housing crisis of 2008, has some homeowners rethinking their living situations. As a result, the tiny house movement has grown into an international movement to include houses falling under the allowable housing unit size of a municipality ($\approx 200\text{ft}^2$). Students, young adults, families, retirees all live in tiny houses. Challenges include: finances, classification, legality, access to utilities, and misconceptions. Previous qualitative research has identified seven motivations (cost, simplified life, sustainability and environmental concerns, sense of community, interest in design, freedom and mobility, and empowerment) for tiny house living in a small (n=11), highly visible population.

The purposes of the current study were: to examine these motivations in a larger sample of tiny house owners using quantitative measures and to understand whether motivations are correlated to tiny house satisfaction, controlling for house size, cost, ownership, length of residence, and demographics. Better understanding tiny house dwellers' motivations and satisfaction can aid in detecting populations most willing to live in smaller residences and the key factors driving this growing trend.

The Tiny House Community Survey (THCS), an online survey of 57 questions, was conducted in February and March 2017. Without an exhaustive directory of tiny house owners, distribution utilized various social media outlets such as an Instagram account

(@tinyhousecommunitysurvey), blog outreach, and Facebook groups. These channels were found using buzz words such as tiny house, tiny house movement, small living, tiny house family, tiny house community, and tiny house builders. A total of 64 participants completed the survey from four countries: USA, Canada, Australia, and New Zealand.

Tiny house features and demographics were assessed and dichotomized into two groups: demographics (age, sex, race, ethnicity, income, and education) and tiny house features (size, cost, residents, ownership status, mobility, and length of residence). Seven motivations were rated on a 5-point scale (1= Strongly Disagree, 5=Strongly Agree) and divided into lower (1-4) and higher (5) groups. The motivations are cost, freedom and mobility, simplified life, sustainability and environmental impact, empowerment, sense of community and interest in design. Overall tiny house satisfaction was measured by asking if the respondent was satisfied with his or her tiny house, captured on the same five-point scale and was separated into lower (1-4) and higher (5) satisfaction.

Descriptive frequencies were used to examine salient motivations among tiny house owners along with the participants' characteristics. Logistic regression was used to analyze associations between each of the seven motivations for living in a tiny house and overall tiny house satisfaction. All analyses were conducted using SPSS 24.0 and significance set at $p < 0.05$.

Decreased costs, a simplified lifestyle, and increased freedom were salient motivations for more than half of the surveyed population. In examining the association between motivations and housing satisfaction, a simplified lifestyle was the only motivation held by respondents with significant relationship. Simplicity could be associated with increased satisfaction as it leads to fewer possessions and thus decreased expenses along with more freedom to enjoy life's experiences. Unlike previous studies, housing features (cost, length of residence, size, and

ownership) and demographic characteristics (sex, income, race) were not associated with housing satisfaction.

Due to a small, non-random sample size, these conclusions cannot be generalized to the larger tiny house population. The sample was relatively homogeneous in terms of sex and race. It is difficult to capture a representative sample of the total population. The study's outreach method limited the respondents to those who participate in the online community of tiny house residents. With limited academic literature regarding tiny houses, future studies have a broad range of topics yet to be explored.

Increased knowledge regarding tiny homes and their impact could help overcome some of the challenges faced by the tiny house community such as lack of awareness, legality concerns, and financing opportunities.

II. BACKGROUND

Tiny House Movement and Motivations

The tiny house movement advocates for downsizing and a moving into smaller residences.¹ While living in smaller homes is in no way novel, the roots of the current trend is somewhat contested as some attribute it to the “Back-to-the-Land” movement of the 1970’s or Thoreau’s plea to live simply and deliberately.¹ In 2002, the first company dedicated to solely building tiny houses was founded and called Tumbleweed Tiny House Company.² Jay Shafer, the owner of Tumbleweed, and several tiny house advocates joined together to create the Small House Society to serve as a community of like-minded individuals with information sharing and support.² There are now numerous books, websites, blogs, conferences, companies, support groups, and more relating to tiny house living for those who are interested or currently live the lifestyle.

There is not one type of person who lives in a tiny house. Residents can include empty nesters, couples, college students, retirees, young adults, and families.^{2,3} Tiny houses allow residents to have an affordable, sustainable, and independent lifestyle.¹ Just as the people who dwell in tiny houses are varied, their motivations for choosing their homes are just as diverse. The motivations for living in a tiny house include: greater financial stability, a simplified lifestyle, reduced consumerism, decreased environmental impact, ability to join a like-minded community, peaked interest in design and building, increased freedom and mobility.²⁻⁵ Several of these factors, such as simplified life and decreased costs, have to do with reducing the amount economic burden of the consumerist mindset which increases unnecessary expenses. Freedom and mobility speak to the empowerment some tiny house owners seek by building their own structure (interest in design) and not being limited to one geographical region. Some tiny house owners are bannin together with shared values to form tiny house or neighborhoods in which a

sense of community is formed. These shared values might be an appreciation for a simplified life or concern of the environmental impact of housing and wasteful spending.

Tiny House Communities

Geoph Kozeny notes that people are mourning the loss of community and are beginning to question today's societal values.⁶ This is true within the tiny house network which typically rejects the world's view of excessive consumerism and unnecessary waste. According to Mutter, those who want to live in communities are among the best niche market for tiny homes because of the benefits that come with concentrating tiny houses in a particular area, such as sharing knowledge about the lifestyle and bolstering social support networks.² Tiny house communities fall under the definition of an intentional community which is a "group of people who have chosen to live together with a common purpose, working cooperatively to create a lifestyle reflecting their shared core values."⁶

With an increased interest in tiny houses, there has been a return to village-scale living.⁷ Tiny house owners are beginning to organize neighborhoods of tiny houses, each unique in what features they share. Other tiny house residents are working within a pre-existing system and removing the stigma often associated with RV parks and turning them into livable, green communities.⁷ These communities are typically built on private property that is either held by an individual, collectively maintained as a part of a cooperative agreement, or owned by holding or development company.⁸ According to the Tiny House Talk Blog, there are currently thirty tiny house communities listed within 17 states across the USA; however, this list does not claim to be inclusive of all communities so others may exist.⁹

Boneyard Studios in Washington, D.C. operated as a micro-village of four tiny houses on wheels with a shipping container used for bike storage and as a workshop space, a small fruit-

orchard, and a shared green space with a garden.⁷ However, due to city restrictions, the houses cannot be lived in full time and are now on display as what could be possible moving forward.⁷ In Canada, Hummingbird Homes has opened the first phase of a tiny house village in the city of Fernie, B.C. This property has room for 30 structures with a common area for socializing, recreation, and laundry.¹⁰ The rent for one space in this 30-acre plot of land is only \$750 per month including most utilities compared to the average rent for a one bedroom apartment in the area being \$1,500-2,000 a month.¹⁰ These are just two examples of tiny house villages in North America with many more operating in other states and countries.

Several cities have begun to utilize tiny house villages to combat the rising problem of homelessness. Despite the 74 public and private shelters to support the homeless in the Portland-Vancouver metro region, over 4,000 residents still sleep in the streets on any given night.⁸ Dignity Village Portland was established in 2000 on a two-acre plot of land six miles from downtown.¹¹ The land is occupied with fifty tiny houses containing 200 ft² of living space.¹¹ Since each home is not equipped with electricity or plumbing, there is a common space that includes a kitchen, toilets, and showers. Additionally, Dignity Village boasts a community garden, computer room, and a recycling or resale area.¹¹ At any given time, there are approximately 50-70 residents in the village with most homes being single occupancy and a handful capable of supporting a couple.¹¹ Over two-thirds of the residents are males over the age of thirty with the remaining third being women.¹¹

Dignity Village offers unique benefits to the homeless population when compared to other shelter options. For example, the village provides a dignified existence by allowing for continuity with no daytime checkouts and allows for self-sufficiency in maintaining one's own space. These tiny homes permit couples to live together and even accept pets. At only \$50/month

per person, a tiny home in the village provides a more permanent option to those locked out of other housing opportunities due to past convictions.¹¹ Additionally, tiny house villages for the homeless benefit the community by reducing public costs of services such as police, emergency room care cost, and jail with a reduction in those living on the streets.¹¹

Dignity Village is not the only tiny home village for the homeless. Occupy Madison Village is a small, three-unit community which houses homeless citizens for 30 days in the city of Madison, WI.⁸ In Eugene, OR there is a transitional housing community known as Opportunity Village with thirty units and another with the same capacity in Olympia, WA known as Quixote Village.⁷ Community First! Village is planning on using a 27 acre plot of land in Austin, TX to house two hundred people.⁷

Tiny House Challenges

There are several challenges facing the tiny house movement. The first is determining how to classify the structures. Since many tiny houses are built on pre-fabricated trailers on wheels, they do not necessarily lend themselves to being governed by typical building codes; however, as residences, they are not under the purview of the Department of Transportation.¹² While many tiny house owners certify their tiny houses under Recreational Vehicle Industry Association (RIVA) standards, this means their house is classified as an RV.⁴ According to the laws, these structures are meant to be lived in for no more than two weeks in most cities making the only legal way to maintain this certification is to move from campground to campground.⁴ Tiny houses built on a fixed foundation are often compliant with the building codes due to recent overalls in the International Building Code and International Residential Code; however, this is dependent on the state of residence.⁴

While the structure might be legal itself, there are still issues to overcome such as in zoning laws and access to utilities such as water and electricity.⁴ Municipalities often have a minimum habitable structure definitions built into complicated zoning codes.^{4,13} Within city limits, tiny houses are restricted by laws mandating connection to city sewage and water.⁴

Other barriers to living this lifestyle include the lack of financing available to those trying to build a tiny house. Banks do not yet see tiny houses' resale value which means they are unwilling to offer loans to those who seek them because there is no collateral on the loan.¹³ This forces tiny house dreamers to save money to pay in cash, borrow from friends and family, or put their house on credit.¹³ Land can also be a huge expense for some people, especially those desiring to live near the city for convenient access to services, employment, and entertainment.¹³

Because the movement is relatively new, there are still many misconceptions of what it means to live tiny. There are social pressures all around that reinforce the notion of consumerism where bigger and better is best. Tiny house owners have reported interactions where people responded adversely to their decision to downsize.¹³ This could be due to lack of understanding and knowledge about these structures. Another concern of going tiny could be fear in a drastic lifestyle change, financing, and building a legal structure, all of which may prevent some people from living under these conditions.¹³

Tiny House Size, Satisfaction, and Choice

Research examining housing preference has often focused on functional congruity.¹⁴ This model focuses on the utilitarian or function value of the home, assuming that the home's features are related to the core function of the home such as sleeping, eating, grooming, and living.¹⁴ According to Heaton et al., people will utilize the size and space of a place when considering their migration.¹⁵ This is relevant to tiny houses because oftentimes they are built on wheels or

are small enough to transport. Sirgy, Grzeskowiak, and Su have found a significant relationship between factors affecting a homebuyer's self-image and the level of satisfaction or dissatisfaction with the property.^{14,15} As a result, homeowners have an ideal image of the resident who is supposed to occupy a home. For tiny home residents, it means they must see themselves as someone who lives in a tiny house, especially since some functional congruity of a tiny house could be lost to size.³

Given that building and zoning codes often dictate a minimum area deemed appropriate for living, one must wonder whether tiny houses are too small to be considered permanent residences. According to the Scientific American Mind magazine, which examined brain science and psychology, home satisfaction was influenced by five factors – relationships with neighbors, privacy, multi-usage, personalization, and security – none of which are related to house size.^{16,17} In fact, those who live in smaller spaces might have more money and time to spend on other areas of life that could bring them further joy such as marriages, family, careers, and exercise.¹⁶ Heerwagen states personal space does not have to be large, it just has to contain interaction with others, privacy, and the occasional stimulus.¹⁸

Tiny House Support Network

Those who have chosen to move into a tiny house often did not go about it alone. There is a large presence of tiny house resources online for people to reference when building their home either by themselves or with a builder. People who live in a tiny house will often maintain a blog or social media account to show their day-to-day lives. The Tiny House Community Blog lists approximately 175 blogs related to tiny house living.¹⁹ The online tiny house community can serve as a consolidated resource of plans, ideas, experiences, and moral support.² However,

it is important to note that not all tiny house dwellers share about their experience with others and prefer the isolation that is possible with off-the-grid tiny house living.²

In addition to blogging, there are currently trade shows, neighborhood open houses, guidebooks, memoirs, books, and conferences related to tiny house living.⁸ On the HGTV station alone, there are three television shows regarding tiny houses – Tiny House Hunters, Tiny House Builder, Tiny House, Big Living – with others on other channels.²⁰ A search on Netflix reveals several documentaries about the lifestyle.

III. INTRODUCTION

According to the United States Census, this country has seen a change in home size within the past 40 years with the average house size increasing from 1660 ft² in 1973 to 2596 ft² in 2013.^{21,22} Meanwhile, the average family size has dipped from 3.67 members to 2.62 between 1940 to 2005.²³ As a result, people have more space in their homes than they have ever had before. In fact, the average square feet per person ratio has more than tripled from 290 ft² in 1950 to 893 ft² in 2003.²³ It is not all luxurious, however, since, according to Swope, home prices, adjusting for inflation, have risen over 9 times since the 1970s while real incomes have remained nearly stagnant.²⁴ These factors have led to several problems for homeowners as seen in the housing crisis of 2008 where there was a ballooning of real estate prices and mortgages.³

Additionally, people are moving into urban areas and city centers which is placing a strain on space and the built environment. According to the United Nations, more than 54% of the world's population resides in urban areas in 2014 and this is expected to increase to 66% by 2050.³ In 2005, single family homes made up 63% of total housing units which in some places represents itself as urban sprawl.²³ Therefore, it is the growth of suburbs with low density patterns and larger homes around cities which is leading to increased social and environmental issues.^{23,25} Given that the built environment plays a large role in human influence on the environment, the increased house size has caused the environmental impact from housing to double since the 1950s.²³ Environmental impacts include an increase of storm-water run off due to increased impermeable surface areas due to foundations and larger energy needs.²³

Overall, the housing situation in this country, especially the economic cost, environmental impact, and growing size has caused some citizens to reevaluate their current living conditions.²⁶ It is interesting to note, however, an increase in housing cost and percentage of income spent on housing is positively associated with housing satisfaction as it insinuates

greater housing quality.²⁷ Length of residence in a house is also correlated to housing satisfaction with more years spent in a house increasing satisfaction.²⁸ Measured by the room stress index, the adequacy of housing size, greenspace, and surrounding environment are also correlated to increased housing satisfaction.^{27,29} Homeownership has been found to significantly impact both housing satisfaction.^{27,30,31} In conclusion, housing satisfaction contributes greatly to overall life satisfaction and happiness.^{28,30}

While small dwellings are in no way novel, a new movement self-described as the Tiny House Movement has gained significant traction since 2002 with the development of the Tumbleweed Tiny House Company and Small House Society.² These companies have since been joined by others in the United States and across the globe sparking an international movement that aims to keep the quality of living high while homeowners intentionally decide to downsize.²

While there is no set standard, homes between 70 and 300 ft² or ones that fall under the allowable housing unit within the municipality where it is built are generally considered “tiny”.⁸ A tiny house is approximated in literature to be around 200 square feet and can vary in complexity and cost while including the necessary sleeping, bathing, storage, and cooking areas found in general houses.⁸ The foundations of most tiny homes are built on pre-fabricated trailer beds or raised, mobile platforms which have maximum size regulations rather than having a structure with a true foundation which is limited by minimum size.⁸ When “going tiny,” builders of tiny houses find the minimum requirements for broad hallways, wide doorways, and rooms constricting, since efficiency is key in making the most of small spaces, especially when trailers are road-limited to dimensions of 8 feet wide, 13.5 tall, and 16-20 feet long.³

Given an example of a standard tiny house, which is 126 ft² of livable space, including the loft, built on a 8x16 ft. trailer, one is bound to ask the question who is choosing to live in

these small spaces.³ Up until this point, literature has identified several niche populations who are living tiny. These include: young adults, students, retirees, seniors, and those interested in tiny house communities.² These populations are widespread and varied and do not point to one specific, identifiable community of tiny house owners. According to Mingoya, the tiny house trend is typically pursued by wealthy downsizers; however, the cost, size, and simplicity of the movement lends itself to an array of incomes.⁸ In fact, organizations such as the Occupy Madison Village in Madison, WI and Dignity Village in Portland, OR have begun to use tiny houses as a way to shelter some of their cities' homeless populations.⁸

The reasons people choose to live in tiny houses are just as varied as those who live in them. One time house owner, Mary Murphy, has recorded her own motivations to design her own tiny house to manage living both on and off the grid.³ She believes she speaks for many of those in her community when she describes her motivation to live this lifestyle was the opportunity for house ownership in the increasing real estate boom.³ She also states limiting her stuff, finding inspiration and beauty in simplicity and conservation, and self-empowerment are a few other reasons she built her own tiny house for \$5,000 using recycled and refurbished materials.³ In another article, Drew Pflaumer lists environmentalism, finances, and freedom as the most salient motivators to join the movement.⁴

A study by Mutter identified six motivations for living tiny.² Given that the lifestyle of living in a tiny house is vastly different than living in a sprawling residence, many tiny house dwellers are interested in leading a simpler life, removing themselves from the culture of American consumerism.² The reduced floor plan of tiny homes decreases the carbon footprint of these houses, however, some tiny house owners cite sustainability and environmental impacts as their primary motivation and take steps to incorporate recycled materials, alternative energy

sources, and rain water collection systems.² For many tiny house owners, cost was an important factor in deciding to downsize since it could be the only way they could afford to own their residence.² Although not all tiny houses are built on movable trailers, some tiny house owners found the flexibility and freedom to not be attached to one location to be a high priority.² Other residents found the sense of community provided by tiny house enthusiasts to be reason to downsize.² Lastly, tiny house owners are often very involved in the design and build of their tiny house and identified the customization potential attractive.²

These drivers for living in a tiny house were found through qualitative methods using popular media reviews and interviews with eleven stakeholders in the North American tiny house community, including tiny house owners, builders, and advocates of the movement.² Chosen for their high visibility in the tiny house community, the eleven participants were asked about motivations, challenges, and potential for growth through a semi-structure, responsive interview style.² As stated by Mutter herself, “academic papers on tiny housing are virtually nonexistent.”² While her thesis began to explore the motivators for living tiny, there is still a large gap in the research. Since several motivations have been named as important in choosing to dwell in a tiny house, there is a need to quantify the data within a larger sample. In summary, only limited research exists examining primary motivations to live in a tiny house and has largely been conducted using qualitative methods drawn from a small, high visibility sample.

Therefore, the purpose of this study is to examine the motivations of a larger sample of tiny house owners in pursuing these shelters using quantitative measures. Additionally, this study aims to understand whether motivations are correlated to tiny house satisfaction, controlling for features such as house size, cost, ownership, and length of residence. Better understanding tiny

house dwellers' motivations and satisfaction can aid in detecting populations most willing to live in smaller residences and the key factors driving this growing trend.

IV. METHODS

Data Collection

The Tiny House Community Survey (THCS) was conducted during February and March 2017. The survey included questions to understand the tiny house movement in terms of its members' satisfaction, living arrangements, and motivations. It was developed online and consisted of a total of fifty-seven questions. Eligible respondents included any person currently living in a tiny house regardless of whether they own or rent the structure. It was limited to one survey per household to ensure a diversity of results. The tiny house movement is an international lifestyle so the THCS was not limited to a particular country or region.

Because limited research exists regarding tiny houses, there has yet been an established method of surveying tiny house residents. Without an exhaustive inventory of tiny house dwellers, outreach included various means of contact to reach a wide and diverse population. Distribution of the THCS occurred online through several social media posts and blog outreach. By searching any combination for blogs relating to "tiny house," "tiny house movement," "small living," "tiny house family," "tiny house community," "minimalism," "tiny house builder," a list of tiny house residents was generated for outreach. The blog owners were contacted using the email address listed or through sending a message directly through the blog platform. Another method of outreach was accomplished by finding tiny house residents through various Facebook group pages such as: Tiny House People, Tiny House, Tiny House Hosting, Tiny House Concepts, American Tiny House Association, and Tiny House DIY. Tiny house dwellers were invited to take the survey through posting on the general page and by direct messages using Facebook Messenger. An Instagram account was also created for the Tiny House Community Survey (@tinyhousecommunitysurvey) to contact tiny house residents through posting messages

about the survey, direct messaging tiny house accounts, and gaining followers to raise awareness of the project.

A total of 64 responses were collected from four countries, including the United States (61), New Zealand (1), Canada (1), and Australia (1). Tiny house residents were incentivized to take the survey for a chance to win one of two raffled gift cards. The survey was approved by the Institutional Review Board at the University of South Carolina.

Measures

The THCS gathered information regarding respondent demographics, motivations for living in a tiny house, specific information about the construction of their tiny house, and tiny house satisfaction. Motivations were rated using a five-point scale (1= “Strongly Disagree,” 5 = “Strongly Agree”) in which respondents answered 7 items relating to “I chose to live in a tiny house because.” The motivations, as found in Mutter’s study, included: live a simpler life (movement away from consumerism or consumption), sustainability and environmental factors (reducing environmental impact, recycling/ reusing material to incorporate into the build), cost (limited financially, desire to live without a mortgage), freedom and mobility (to move about the country, have a more flexible schedule, independence), sense of community (living in a tiny house community, participating in the online community, support of family and friends during and after the build), interest in design (desire to plan, assistance in the building or construction of the home), and empowerment (overcoming the challenges of living in a tiny house).²⁻⁴ The results were then dichotomized into lower motivation (1-4) and higher motivation (5) for each of the seven dimensions.

Overall tiny house satisfaction was measured by asking if the respondent was satisfied with his or her tiny house, captured on a five-point scale (1= “Strongly Disagree,” 5 = “Strongly

Agree”). The variable was dichotomized into low satisfaction (1-4) and high satisfaction (5). Tiny house residents were also asked to categorize the size of their tiny house, including lofted space, in increments of 100 ft², which was divided into houses with less than 200 ft² and those between 200-799 ft². Residents were asked to comment on their current living arrangement – whether they were living alone, with a partner or spouse, or with their family. Respondents were also asked about the length of residence in their tiny house (a year or less or more than one year) and about the total cost of their tiny house, dichotomized into \$39,999 or less or more than \$40,000. Lastly, the survey examined whether participants owned their tiny houses or not and if they had the ability to be transported.

Additionally, respondents were asked a variety of demographic characteristics. Age was measured on a continuous scale and dichotomized into younger (19-39) and older (40-66). Sex was evaluated with three choices: male, female, and other. Race and ethnicity characteristics were assessed and divided into white and biracial and Hispanic or non-Hispanic. Based on education, respondents were divided into two groups, one having obtained a four-year degree or more and the other having a two-year degree or less. Respondents chose their annual household income in increments of \$15,000 and were then dichotomized further into two groups (below \$60,000 or \$60,000 or more).

Analysis

Descriptive frequencies were used to examine salient motivations among tiny house owners along with the participant’s characteristics. Logistic regression was used to analyze associations between each of the seven motivations for living in a tiny house and overall tiny house satisfaction, controlling for tiny house features and participant characteristics. All analyses were conducted using SPSS 24.0 and significance set at $p < 0.05$.

V. RESULTS

As seen in Table 1, a majority of survey participants were white (96.4%) and female (78.0%). Some participants identified as being Hispanic, Latino(a), or Spanish ethnicity (8.5%). The ages ranged from 19 years to 66 years, with more than half (59.3%) being less than 40 years old. A majority of the participants (59.3%) earned \$59,999 annually and held a four-year college degree or more (59.3%).

Table 2 displays several tiny house features. For example, participants' tiny houses ranged in size from less than 99 ft² to 799 ft² with most (67.7%) being between 200-799 ft². More than two-thirds (70.8%) of the tiny house residents owned their structure and had the ability to transport their house if desired (89.1%). The length of residence was equally divided in terms of living in the tiny house for a year or less (49.2%) or for over a year (50.8%). About one-third (32.8%) of the participants lived with a spouse or partner, about half lived alone (45.3%), and the remaining (21.9%) respondents lived with their families.

As seen in Figure 1, cost was found to be the most salient motivation for living in a tiny house with 71.9% of residents agreeing strongly. The desire to live a simple life with less consumerism (65.6%) and having the freedom and independence to move about (51.6%) were the next two influential reasons to live in a tiny house. There was an even split between tiny house residents who had high motivation (50.0%) versus low motivation (50.0%) due to sustainability and environmental concerns. Approximately one-third (37.1%) of tiny house residents recorded a high motivation for going into this lifestyle in terms of having an interest in design. Less than one-fourth of participants (23.8% and 22.4%) attributed empowerment and sense of community, respectively, for high motivations for living in a tiny house.

In order to examine the bivariate relationship between motivations and satisfaction, an unadjusted odds ratio (OR) was calculated for each motivation (Table 3). Those respondents with a high motivation for a simple lifestyle were more found to be more likely to be satisfied with their tiny house (OR=5.10). The other motivations, sustainability (OR=1.34), cost (OR=0.80), freedom (OR=0.51), community (OR=1.51), design (OR=1.14), and empowerment (OR=1.38) were not found to be significantly associated with tiny house satisfaction.

Table 3 also includes two adjusted analyses examining associations between tiny house motivations and satisfaction, controlling for a variety of features. As noted in past research, housing satisfaction is associated with housing cost, size, ownership, and length of residence.²⁷⁻³¹ Therefore, an adjusted odds ratio was found for each motivation while controlling for these variables (Table 3, column 3). The desire to live a simple life was again the only motivation was significantly (OR=4.86) association with tiny house satisfaction.

In binary analyses, most demographic measures (sex, race, ethnicity, education, or income) were not found to be significantly associated with satisfaction. However, age was the only demographic variable found to have a relationship with satisfaction such that older people (40-66) were more likely to be satisfied with their tiny house younger respondents (19-39). Consequentially, a third set of analyses were conducted controlling for participant age (Table 3, column 4). Simplicity remained the only motivation that was significantly associated with housing satisfaction (OR=11.03).

VI. DISCUSSION

This study offers valuable information regarding the motivations held by tiny house residents. Quantifying data was collected to determine which factors were of most importance to downsize. Decreased costs, a simplified lifestyle, and increased freedom and mobility were salient motivations for more than half of the surveyed population. Additionally, this study examined the satisfaction one had of their home in association with what motivated them to live in a tiny house in the first place; a simplified lifestyle was the only motivation held by respondents associated with housing satisfaction.

A simplified lifestyle was defined as the movement away from consumerism or consumption. Because tiny houses offer less space than a typical household, residents have to be conscious about the material possessions they own. For some, living in a tiny house leads to an intentional lifestyle of their reducing belongings to only those that are essential or meaningful. Therefore, simplicity could be associated with increased satisfaction since it leads to fewer possessions which means decreased expenses along with more freedom to enjoy life's experiences rather than consumer goods.

This study demonstrates consistency with those listed by other authors in terms of the motivations encouraging people to move into tiny houses.²⁻⁴ People are weighing a variety of factors and reasons for living in smaller spaces such as reducing consumerism, decreasing the cost of housing, limiting their environmental impact, increasing their freedom and independence, designing their own house, empowering themselves, and developing a sense of community. Previous research has found homeowners take into account not only the functional aspects of the home but if the resident's self-congruity fits with the perceived image of the house.¹⁴ Therefore, it is reasonable for tiny house owners to be motivated by shared factors surrounding the tiny house movement.

Housing satisfaction has been associated with a variety of factors, including both residential and demographic features. A study conducted in Hangzhou, China found females and those in older generations to have higher satisfaction with their residence.³² Additional studies have found an association between satisfaction and demographic features such sex, income, and race.^{27,32} When controlling for factors that could influence the association between motivations and satisfaction, however, this study only found significance in older respondents being more satisfied with their tiny homes. Residential features such as ownership status, length of residence, cost, and size of house have previously been linked to overall housing satisfaction.²⁷⁻³² This study on tiny houses found no influence while controlling for these factors when analyzing the association between motivations and satisfaction.

Limitations

This study had several limitations. The first having to do with the sample included. The sample was homogeneous primarily in terms of sex and race. Due to a small, non-random sample size, these conclusions cannot be generalized to the larger tiny house population. Since there is no comprehensive directory of tiny house owners, it is difficult to capture a representative sample of the total population. The study's outreach method limited the respondents to those who participate in the online community of tiny house residents. Given the cross-sectional design of this study, it is only possible to make associations between tiny house motivations and satisfaction rather than casual relationships. Additionally, these results can only be analyzed at this period in time rather than being evaluated over time.

Conclusions

With an increase in the size, cost, and environmental impact of homes, people are reconsidering their housing situation.^{3,21-23,26} While the popularity of the tiny house movement

has been steadily growing as a result of these concerns, the academic literature surrounding this topic is still very limited.² Findings from this study provide a foundation for further literature to explore the reasons people are choosing to downsize their living space. Given the motivations listed in this study, future research can focus on how these are in everyday practice such as environmental measures taken by residents or how expenses are decreased in tiny homes. Others could examine the life satisfaction of tiny houses given their simplified lifestyle of less consumer goods. Increased knowledge regarding tiny homes and their impact could help overcome some of the challenges faced by the tiny house community such as lack of awareness, legality concerns, and financing opportunities. In conclusion, this study explored key factors driving the movement and how one's satisfaction of his or her tiny house is associated with overall housing satisfaction.

VII. APPENDIX 1: TABLES AND FIGURES

Figure 1

Tiny House Motivations Frequencies

Table 1
*Demographic Characteristics
of Study Participants*

Demographic Characteristics	%
Sex	
Female	78.0%
Male	20.3%
Other	1.7%
Age	
19-39 y.o.	59.3%
40-66 y.o.	40.7%
Race	
White	96.4%
Biracial	3.6%
Hispanic/ Latino(a)	
Yes	8.5%
No	91.5%
Education	
2 year degree or less	40.7%
4 year degree or more	59.3%
Income	
\$59,999 or less	59.3%
\$60,000 or more	40.7%

Table 2
Tiny House Features

Tiny House Measures	%
Size	
1-199 ft ²	32.3%
200-799 ft ²	67.7%
Ownership Status	
Owned	70.8%
Not Owned	29.2%
Length of Residence	
1 year or less	49.2%
More than 1 year	50.8%
Mobility	
Able to be transported	89.1%
Permanently fixed	10.9%
Residents	
Single	45.3%
Partner	32.8%
Family	21.9%
Total Cost	
\$39,999 or less	53.1%
\$40,000 or more	46.9%

Table 3
Association between Motivations for Tiny House Living and Housing Satisfaction

Motivations for Living in a Tiny House ¹	Overall Tiny House Satisfaction		
	Unadjusted OR (95% CI)	Adjusted OR ² (95% CI)	Adjusted OR ³ (95% CI)
Simplicity	5.10 (1.63-15.93)**	4.86 (1.31-17.96)*	11.03 (2.60-46.88)**
Sustainability & Environmental Impact	1.34 (0.46-3.87)	1.21 (0.40-3.67)	1.72 (0.54-5.43)
Cost	0.80 (0.24-2.64)	0.67 (0.18-2.55)	0.69 (0.19-2.49)
Freedom and Independence	0.51 (0.17-1.54)	0.38 (0.11-1.33)	0.70 (0.21-2.35)
Sense of Community	1.51 (0.36-6.33)	1.57 (0.33-7.54)	1.66 (0.36-7.67)
Interest in Design	1.14 (0.38-3.47)	1.02 (0.31-3.32)	1.15 (0.35-3.76)
Empowerment	1.38 (0.38-5.01)	1.19 (0.31-4.62)	1.01 (0.25-4.12)

Table 3 Notes:

* p<.05

**P<.01

1. For all analyses, the referent group is participants with lower motivation for each dimension.

2. Adjusted by cost, size, ownership, and length of residence.

3. Adjusted by participant age.

VIII. APPENDIX 2: SURVEY

You are being asked to volunteer for a research study conducted by Lauren Boeckermann. I am a senior undergraduate student in the Built Environment and Community Health (BEACH) Laboratory in the Department of Health Promotion, Education, and Behavior at the University of South Carolina. This research is supervised by Dr. Andrew Kaczynski. The purpose of this study is to understand the tiny house community in terms of its members' satisfaction, living arrangements, and motivations. You are being asked to participate in this study because you are a tiny house owner or renter.

If you agree to participate in this study, you will be asked to complete a survey about your experience living in a tiny house. The survey will take approximately 20 minutes to complete the 55 questions. Taking part in this study is not likely to benefit you personally. However, this research will help us better understand tiny house communities and their members' motivations for living in a tiny house. There are no substantial risks in participating and we will take great efforts to ensure the information you provide remains confidential. You may choose not to answer any questions or to withdraw from the survey at any time.

As a thank you for your time and effort, upon survey completion, you will have the opportunity to be entered in a raffle to win one of two \$50 Amazon gift cards. To ensure we gather a diversity of responses, PLEASE LIMIT THIS SURVEY TO ONLY ONE PARTICIPANT PER HOUSEHOLD.

1. Do you agree to participate in this survey?
 - a. Yes, I agree to participate in this study
 - b. No, I do not agree to participate in this study

II. Tiny House Information: This section includes questions regarding the logistics of your own tiny house. A tiny house varies in complexity, cost, and size while still generally including sleeping, bathing, storage, and cooking areas found in houses.

2. Who do you live with in your tiny house?
 - a. Single
 - b. Spouse/ partner
 - c. Family
 - d. Roommate (s)
 - e. Other
3. How many adults (including yourself) live in your tiny house?
4. How many children (under the age of 18) live in your tiny house?
5. Do you rent or own your tiny house?
 - a. Rent
 - b. Mortgaged
 - c. Owned outright
 - d. Other
6. What was the total cost of your tiny house?
 - a. Under \$5,000
 - b. \$5,000 - \$9,999
 - c. \$10,000 - \$19,999
 - d. \$20,000 - \$29,999
 - e. \$30,000 - \$39,999
 - f. \$40,000 - \$49,999
 - g. \$50,000 - \$59,999
 - h. \$60,000 - \$69,999
 - i. \$70,000 or more
 - j. Prefer not to answer
7. How long have you lived in your tiny house?
 - a. Less than 6 months
 - b. Between 6 months and 1 year
 - c. 1 – 3 years
 - d. 4 – 6 years
 - e. 7 or more years
8. What is the square footage (ft²) of your tiny house (including lofted space)?
 - a. 0 – 99
 - b. 100 – 199
 - c. 200 – 299
 - d. 300 – 399
 - e. 400 – 499
 - f. 500 – 599
 - g. 600 – 699
 - h. 700 +

9. How did you complete the construction of your tiny house?
 - a. Built it myself
 - b. Hired a builder
 - c. Purchased a pre-existing shell
 - d. Purchased a completed tiny house
 - e. Other
10. What is the movability of your tiny house?
 - a. Permanently fixed
 - b. Has the ability to be transported
 - c. Other
11. What is the legal status of your tiny house?
 - a. I live in a fully legal, inspected, and permitted tiny house
 - b. I live in a tiny house that is NOT legal, inspected, or permitted
 - c. Prefer not to answer
 - d. Other
12. What is your current living situation?
 - a. Own the land on which your tiny house is placed
 - b. Renting land from friends/ family
 - c. Renting land from a property owner
 - d. Living in a community of tiny houses
 - e. Living in an RV park
 - f. Other
13. What is the status of your structure?
 - a. Very poor, dilapidated
 - b. Poor, needs painting
 - c. Good, needs minor repairs
 - d. Excellent, very well maintained
14. What is the population size for the area in which your tiny house is parked?
 - a. Rural: 0 – 1,000 people
 - b. Semi-rural: 1,000 – 10,000 people
 - c. Small town: 10,000 – 50,000 people
 - d. Large town: 50,000 – 150,000 people
 - e. Small city: about 250,000 people
 - f. City: +500,000 people

III. Tiny House Satisfaction: The purpose of this section is to gauge your satisfaction with your current living arrangements in your tiny house. Your tiny house includes the structure itself along with any additional components of your "house" such as patio space, outdoor gardens, etc.

*On a scale of 1= strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, 5= strongly agree

15. I am satisfied with:*
 - a. This tiny house
 - b. The area in which this tiny house is parked
16. I am satisfied with:*
 - a. Size of tiny house
 - b. Yard/ outdoor space
 - c. Distance from shopping
 - d. Neighborhood (if applicable)
 - e. Distance from work (if applicable)
 - f. Distance from school (is applicable)
 - g. Amenities within the home
 - h. Cost of utilities
 - i. Space for guest
 - j. Space for recreation/ activities
17. I have a desire to:*
 - a. Stay in current residence
 - b. Move into a different tiny house
 - c. Move into a larger housing structure (apartment, house, condo, etc.)

IV. Tiny House Motivations: This section explores your motivations for moving into a tiny house. This section is of great interest for us. Please feel free to use the text box to elaborate on your reasons for moving into a tiny house.

18. I chose to live in a tiny house because:*
 - a. Live simpler life (movement away from consumerism or consumption)
 - b. Sustainability and environmental factors (reducing environmental impact, recycling/ reusing material to incorporate into the build)
 - c. Cost (limited financially, desire to live without a mortgage)
 - d. Freedom and mobility (to move about the country, have a more flexible schedule, independence)
 - e. Sense of community (living in a tiny house community, participating in the online community, support of family and friends during and after the build)
 - f. Interest in design (desire to plan, assistance in the building or construction of the home)

- g. Empowerment (overcoming the challenges of living in a tiny house)
 - h. Other
19. What was the most important factor for you in deciding to go tiny? (You may choose from the list above if applicable or enter your own reason) Please explain your choice as we are interested to understand what motivated you to live in a tiny house.

V. Tiny House Community and Neighborhood 1:

This section asks about tiny house communities. For our purposes, a tiny house community is any two or more tiny houses living in close proximity with one another. Amenities may or may not be shared between the homes. The community could have a name or could just be friends living on the same plot of land with their tiny houses.

20. Do you live in a tiny house community?
- a. Yes
 - b. No
 - c. Prefer not to answer

VI. Tiny House Community and Neighborhood 2:

This section asks about tiny house communities. For our purposes, a tiny house community is any two or more tiny houses living in close proximity with one another. Amenities may or may not be shared between the homes. The community could have a name or could just be friends living on the same plot of land with their tiny houses.

21. If you do not live in a tiny house community, do you wish you did?
- a. Yes
 - b. No
 - c. Prefer not to answer
22. Do you live in a neighborhood setting? (please think about a neighborhood as the area within a 10-15 walk of your home, it does not have to consist of tiny houses)
- a. Yes
 - b. No
 - c. Prefer not to answer

VII. Tiny House Community and Neighborhood 3:

This section asks about tiny house communities. For our purposes, a tiny house community is any

two or more tiny houses living in close proximity with one another. Amenities may or may not be shared between the homes. The community could have a name or could just be friends living on the same plot of land with their tiny houses.

23. How many neighbors live within a 10-15 minute walk of your tiny house?
- a. 1 – 4
 - b. 5 – 9
 - c. 10 – 14
 - d. 15 – 19
 - e. 20 – 24
 - f. 25 – 29
 - g. 30+
24. Overall, how would you rate your neighborhood as a place to live?
- a. Poor
 - b. Fair
 - c. Good
 - d. Very good
 - e. Excellent
25. Please tell us how much you agree or disagree with each of these statements about your neighborhood surroundings.*
- a. People around my neighborhood are willing to help their neighbors
 - b. This is a close-knit neighborhood
 - c. People in this neighborhood can be trusted
 - d. People in this neighborhood generally don't get along with each other
 - e. People in this neighborhood do not share the same values
 - f. You have someone in your neighborhood who you can talk to about important things
 - g. You have someone in your neighborhood who could help you out with things like give you a ride, watch the house or kids, or fix something
 - h. I received helpful information and advice (about child rearing, job opportunities, etc) from my neighbors

****On a scale of 1= very unlikely, 2= unlikely, 3= neither likely nor unlikely, 4= likely, 5= very likely**

26. These questions are about interactions with your neighbors. Neighbors are people who live nearby. They do not have to live on your same

street, but they should live within a short (10-15 minutes) walking distance. **

- a. People were spray-painting graffiti on a local building or were vandalizing the local park or park equipment
- b. A fight or domestic dispute broke out in front of their house
- c. A local service in your neighborhood, such as library, community center, or a health clinic was in danger of closing down
- d. Children were hanging out in the neighborhood or around a school at night
- e. A neighbor was acting unfairly towards another neighbor

VIII. Online Tiny House Community 1: This section asks questions regarding the online tiny house community. The online tiny house community includes blogs, social media accounts, how-to guides, online discussions, etc. These together form an online type of community where those who are interested and residents themselves, can find help and support living tiny.

27. Do you participate in the online tiny house community (maintain a blog, participate in online discussions, etc)?
- a. Yes
 - b. No
 - c. Prefer not to answer

IX. Online Tiny House Community 2: This section asks questions regarding the online tiny house community. The online tiny house community includes blogs, social media accounts, how-to guides, online discussions, etc. These together form an online type of community where those who are interested and residents themselves, can find help and support living tiny.

28. I participate in the online tiny house community because:*
- a. Seeking/ providing emotional support
 - b. Finding friends/ peers
 - c. Relationship building
 - d. Group attachment/ commitment
 - e. Expressing my identity
 - f. Increasing self-esteem/ respect

- g. Satisfying other members' needs
 - h. Being helpful to others
 - i. Seeking/ providing advice
 - j. Gaining prestige
 - k. Attaining status in the community
29. How much do you agree or disagree with the following statements regarding your online contributions to the virtual tiny house community?*
- a. I feel as if I belong to my virtual community
 - b. I feel membership in my virtual community
 - c. I feel as if my virtual community members are my close friends
 - d. I like my virtual community members
 - e. I am well known as a member of my virtual community
 - f. I feel that I control the virtual community
 - g. My postings on the virtual community are often reviewed by other members
 - h. Replies to my postings in the virtual community appear frequently
 - i. I spend much time online in my virtual community
 - j. I spend more time than I expect navigating my virtual community
 - k. I feel as if I am addicted to my virtual community
 - l. I have missed classes or work because of my virtual community

X. Overall Life Satisfaction: This section asks questions about your overall life satisfaction since it has been correlated to levels of housing satisfaction. Please tell us about your life satisfaction by reviewing the two adjectives at either end of each question below and highlighting the star that is closest to how you feel.

Life is:

30.	Miserable (1)	(2)	(3)	(4)	Enjoyable (5)
31.	Boring (1)	(2)	(3)	(4)	Interesting (5)
32.	Empty (1)	(2)	(3)	(4)	Full (5)
33.	Useless (1)	(2)	(3)	(4)	Worthwhile (5)
34.	Lonely (1)	(2)	(3)	(4)	Friendly (5)

35.	Discouraging (1)	(2)	(3)	(4)	Hopeful (5)
36.	Defeating (1)	(2)	(3)	(4)	Enabling (5)
37.	Tied Down(1)	(2)	(3)	(4)	Free (5)

In my life:

38.	I feel depressed (1)	(2)	(3)	(4)	I generally feel in good spirits (5)
39.	Things feel hopeless (1)	(2)	(3)	(4)	I find a great deal of happiness in life (5)
40.	I feel bored (1)	(2)	(3)	(4)	I am very satisfied with life (5)
41.	I feel down in the dumps (1)	(2)	(3)	(4)	I feel I am getting the things I want out of life (5)
42.	I feel the future looks dismal (1)	(2)	(3)	(4)	I feel the future looks bright (5)

43. I am satisfied with life as a whole.*

XI. Demographics: Finally, please tell us a bit more about yourself. All information will be kept confidential.

44. What is your age?

45. What is your sex?

- a. Male
- b. Female
- c. Other

46. Which one or more of the following would you say is your race?

- a. American Indian or Alaska Native
- b. Asian
- c. Black or African American
- d. Pacific Islander
- e. White or Caucasian
- f. Other

47. Are you of Hispanic, Latino/a, or Spanish origin?

- a. Yes
- b. No

48. What is your sexual orientation?

- a. Straight
- b. Gay or lesbian
- c. Bisexual
- d. Asexual
- e. Other
- f. Prefer not to answer

49. What is your marital status?

- a. Single
- b. Married
- c. Cohabiting/ unmarried couple
- d. Separated
- e. Divorced
- f. Widowed
- g. Other

50. Highest education completed

- a. Less than high school
- b. High school/ GED
- c. Some college
- d. Two-year college degree
- e. Four-year college degree
- f. Advanced degree
- g. Other

51. What is your current work status? (Check only one option indicating your primary role)

- a. Employed full-time
- b. Employed part-time
- c. Homemaker
- d. Retired
- e. Unemployed
- f. On disability
- g. Full-time student
- h. Part-time student
- i. Other

52. If you are employed either by an employer or yourself, what is your work status?

- a. Live in the area and commute
- b. Work remotely/ online/ at home
- c. Travel with the tiny house
- d. Other

53. What is your annual household income before taxes?

- a. Less than \$15,000
- b. \$15,000 - \$29,999
- c. \$30,000 - \$44,999
- d. \$45,000 - \$59,999
- e. \$60,000 - \$74,999
- f. \$75,000 - \$99,999
- g. \$100,000 - \$124,999
- h. \$125,000 - \$149,999

- i. \$150,000 - \$199,999
- j. \$200,000 - \$249,999
- k. \$250,000 or more
- l. Prefer not to answer

54. In what country do you live?

55. If you live in the United States, in what state do you reside?

XII. Thank You for Completing the Survey: We appreciate your time and effort in completing this survey. It is our goal to have academic research available on the tiny house movement and appreciate your participation. If you run a blog or know other tiny house owners, we would love for you to share this survey with others. Please contact us at lauren@email.sc.edu or tinyhousecommunitysurvey@gmail.com or

(513)348-3150 if you have any questions or would like to work with us to share this survey. Thank you!

56. In exchange for your time and effort, we will be raffling off two \$50.00 Amazon gift cards. If you would like to be entered in the raffle, please enter your email below. Please note that your email will be kept separately from your survey responses to maintain confidentiality.

57. It is our goal to use this information from this survey to publish an article in a peer-reviewed, academic journal. If you would like to receive updates on our results and conclusions, please enter your email below. Again, your email will be kept separate from your responses for confidentiality.

IX. APPENDIX 3: TINY HOUSE IMAGES

Image 1

Tiny House Savannah and Lauren Boeckermann. Mt. Hood Tiny House Village, OR. July 2016.

Image 2

Mt. Hood Tiny House Village, OR. July 2016.

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