Overcoming the Barriers to Micro-Housing:

Tiny Houses, Big Potential

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Executive Summary

Background

Micro-housing refers to residential units that are smaller than traditionally-sized units. These can be complete units that include bathrooms and kitchens, or units that share communal space and amenities. This research looks at two forms of micro-housing: individual tiny homes and micro-villages. It contributes to a growing body of resources that help people live in tiny houses by consolidating a list of challenges and identifying strategies that allow people to overcome these barriers.

This research asks the following questions:
1. What are the major barriers to individual tiny houses?
2. What are the major barriers to micro-villages?
3. What strategies do tiny house residents and advocates use to overcome these challenges?

- Tiny Homes
- Between 80-200 sq. ft.
- Often have kitchen and bathroom.
- Frequently on wheels, sometimes on a foundation.

Tiny home in Eugene, OR

Photos from inside "The Bear/Beer Den", a tiny home in Berryville, VA

Tiny Homes

The tiny house movement advocates for downsizing from traditionally-sized homes to smaller houses. Advocates speak of the potential to simplify one's life, decrease one's environmental impact, save money, and live independently. To some, the tiny house movement is seen as extending from the Back-to-the-Earth movement of the 1970s, and others trace it back to Thoreau and his emphasis on living simply and deliberately.

Although some cities are working to accommodate these nonconventional housing options, significant barriers still prohibit people from living in a tiny house.

Micro-Villages

Micro-villages are intentional tiny home communities that represent the merging of the tiny house movement with the tent city movement. These communities are emerging as one solution to providing permanent and transitional housing to people experiencing homelessness.

Micro-villages often feature up to 30 tiny homes and shared communal space. They can range in legality from sanctioned, publicly-funded communities to unsanctioned, informal gatherings of shelter.

Micro-villages featured in this research include Quixote Village (Olympia, WA), Second Wind Cottages (Ithaca, NY), Dignity Village (Portland, OR), Occupy Madison (Madison, WI) and Opportunity Village Eugene (Eugene, OR).

Tiny homes at Quixote Village in Olympia, WA, a micro-village for previously unhoused adults.

Benefits of Micro-Villages:
1. Affordable rental and homeownership opportunities
2. Supportive, transitional housing
3. Community
4. More cost-effective than other public approaches to homelessness
5. Autonomy and independence, sense of ownership

Site plan for Emerald Village Eugene, future micro-village in Eugene, OR www.opportunityvillageeugene.org; http://www.thevillagecollaborative.net/

Cities with operating micro-villages:
- Seattle, WA
- Olympia, WA
- Portland, OR
- Eugene, OR
- Austin, TX
- Madison, WI
- Ithaca, NY

(The Village Collaborative, 2016)

Cities with proposed micro-villages:
- Greensboro, NC
- Huntsville, AL
- Ann Arbor, MI
- Owosso, MI
- Des Moines, IA
- Fairfield, IA
- Fort Collins, CO
- Missoula, MT
- Walla Walla, WA
- Chico, CA
- Nevada City, CA
- Santa Cruz, CA
- San Luis Obispo, CA

Methodology

6 Site Visits

Quixote Village

Dignity Village

Eugene, OR

Washington, D.C.

Build Tiny (VA)

Berryville, VA

Location of Interviewees

21 Interviews
Tiny house residents, city staff, micro-village advocates, architects, contractors, HUD representative, and tiny house academics.

Why do you live in a tiny house?

Why should communities support micro-villages?

What financial barriers do/did you face?

What technical or legal barriers do/did you face?

What social barriers do/did you face?

Did you overcome these barriers? How?

Findings

Individual Tiny Home Barriers and Strategies

Category	Barriers		Strategies
Technical	Tools and technical skills (5)	🏠	Tool and skill-sharing model
	Transporting home (2)	🏠	Register as travel trailer
	Lack of legal address (3)	🏠	Use friend or neighbor's address or P.O. box; Use address not attached to structure
	Meeting building code (2)	🏠	Engage with local government early
	Zoning and land use (3)	🏠	Find cities that accommodate tiny houses; Seek ADU status
	Repairing unit (1)	🏠	Unofficial skill-sharing
Social	Having a family (2)	🏠	Multiple tiny homes in proximity
	Isolation (2)	🏠	Usable outdoor space; Communal space
	Negative perceptions (3)	🏠	Early neighborhood outreach; Change dialogue about tiny homes
Financial	Accessing insurance (5)	🏠	Register as travel trailer; Tiny home insurance (Lloyds of London); Insure through rental or auto insurance; Insurance co-op
	Financing construction (4)	🏠	Personal loan; Finance through friends/family/community
Other	Finding a place to park (3)	🏠	Property of friend/family; Advertise need for space
	Accessing utilities (3)	🏠	Avoid reliance on external utilities; Connect plumbing to RV greywater tank; Connect to well or nearby property

Micro-Village Barriers and Strategies

Main Barriers:
- NIMBYism
- Lack of community support
- Lack of funding
- Stigma of homelessness
- Land use and zoning
- Building code
- Finding an affordable and properly-zoned site
- Internal challenges
- Perceived lack of coordination

Main Strategies:
- Conduct early community outreach
- Establish a formal nonprofit
- Diversify support
- Work with local government
- Innovative revenue generation
- Strategic location
- Carefully craft governing documents and community agreement

The biggest barrier to tiny houses and micro-villages is often a lack of political and social support. Land use ordinances and codes can be flexible but people's ideas about tiny houses are often the most significant barriers.

Conclusions
Micro-Villages

The main barriers to micro-villages are often **social opposition, NIMBYism** and **a lack of political will** from local government. Many micro-villages are also challenged by a lack of funding, difficulty finding a location and zoning. Much of this can be related to a pervasive stigma associated with homelessness and affordable housing.

Keys to the success of micro-villages have been collaboration with local governments, coalition building, diversifying funding, early community outreach and strong community agreements within the villages.

Implementation of Madison Park, a proposed micro-village in Walla Walla, WA, is stagnated only by community opposition.

What can communities do?

To best support micro-villages, communities can combat the stigma of homelessness by changing the local dialogue around homelessness. We can do this by educating ourselves and each other about the complexity and true causes of homelessness. Sharing stories of success also makes it clear that the positive outcomes of micro-villages outweigh the negative.

Individual Tiny Houses

Overall, the two biggest barriers to tiny homes are building codes and zoning ordinances that treat them as illegal or illegitimate types of housing. This illegality complicates accessing insurance and financing, finding a place to park, and getting a home repaired.

One factor that contributes to the ease of living in a tiny house is the policy framework in a particular community. Many tiny house residents had more success in areas where governments were willing to accommodate smaller dwelling units in their codes and ordinances.

What can governments do?

The rapid increase in the number of proposed micro-villages indicates growing community support that needs to be matched by the political will of local governments. Local governments can accommodate tiny homes and micro-villages by:

- **Decrease minimum area requirements** for dwelling units (can be as low as 70 sf);
- Add **flexibility** to zoning requirements to encourage innovative housing solutions;
- Allow tiny houses on foundations outright;
- Permit micro-villages as multi-family developments;
- Help groups starting a micro-village find **land**, access **funding** and **overcome opposition**; and
- Treat tiny houses and micro-villages as a **part of the solution** to the affordable housing and homelessness crises.

Table of Contents

Chapter 1: Introduction

This report provides insight into the experiences of people involved with the micro-housing movement. Intended audiences include planners and policy-makers, micro-housing advocates, prospective tiny house residents, and organizations wishing to establish a micro-village. This research contributes to previous work by examining and consolidating a list of challenges facing the tiny house movement, and sharing creative solutions that help people, organizations and communities overcome these barriers.

Micro-housing describes a range of housing options that are smaller than traditionally-sized residential units. This encompasses a diverse range of smaller, often non-traditional living accommodations including single room occupancy units (SROs), yurts, Conestoga huts, micro-apartments, cottages and shipping containers. This research focuses specifically on tiny homes. Tiny homes are houses that range from 80 to 200 square feet, and are broadly defined to be less than 500 square feet (Heben, 2014; Wyatt, 2016).

Tiny homes either stand as individual structures, serving one individual or household, or are grouped into tiny home communities, referred to as micro-villages. Many micro-villages have been developed for people transitioning out of homelessness or housing instability. Some refer to tiny houses that serve this purpose as "upsizing", i.e. moving from a less stable form of housing to a more permanent form. On the other hand, the trend of using tiny homes to "downsize" one's life has also been popularized through the growing tiny house movement. These two configurations of tiny homes serve different purposes and often different populations, but face many of the same barriers to implementation. Regardless of the differences, tiny homes in all their forms can help expand housing options by providing opportunities for affordable, sustainable, and independent lifestyles.

Downsizing: The Tiny House Movement

The tiny house movement, a booming cultural phenomenon, advocates for downsizing from traditionally-sized homes to much smaller houses. To some, the tiny house movement is seen as extending from the "Back-to-the-Land" movement of the 1970s, and others trace it back to Thoreau and his emphasis on living simply and deliberately (LaVoie, 2012). According to many online bloggers and websites, tiny homes are growing in popularity for a wide variety of reasons (Stokes, 2015; Heben, 2015 a; Newman, 2014).

Micro-housing: dwelling units that are smaller than traditionally-sized units.

Tiny house: a type of micro-housing; a free-standing house that measures anywhere from 80 to 200 square feet in area.

Micro-Village: a group of tiny homes that together form a community.
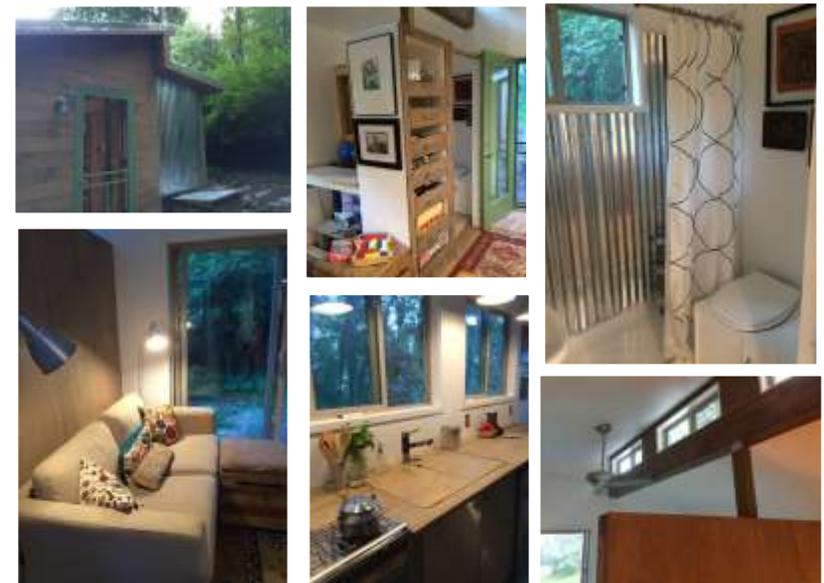
Photos from inside "The Bear/Beer Den", a tiny home in Berryville, VA. *All pictures taken by author unless otherwise indicated.

Many people who downsize to a tiny house may seek financial stability. Smaller houses are often more affordable and can allow people to own their own home when they might not be able to do so otherwise. Others may want to simplify their lives: smaller units use fewer resources and require people to live unburdened by material possessions. Finally, if built on wheels, people can take their house with them when they move. Regardless of why someone would choose to live in a tiny house, their popularity is undeniable. Tiny homes abound on the website Pinterest, in documentaries and television shows, and in popular media sources like Buzzfeed and Reddit.

Upsizing: Micro-Villages

While tiny houses offer some the opportunity to live more simply, a tiny home can also be a step up from sleeping in a tent or living on the street. In his book *Tent City Urbanism*, Andrew Heben explores how micro-villages for people experiencing homelessness have emerged from the tent city movement and are now being adopted across the country (2014). Often a nonprofit organization works with public and/or private funding to provide tiny homes to people with unstable housing situations. Often these housing arrangements are paired with access to supportive services that residents might need. Micro-homes in these configurations can offer stability and self-sufficiency to people that would otherwise be unable to live independently.

Tiny homes at Quixote Village, a micro-village for adults experiencing homelessness in Olympia, WA.

Barriers to Tiny Houses

For decades, housing specialists have noted barriers that make it complicated or expensive to build affordable housing (HUD, 1991; HUD, 2005; Knaap et. al., 2007). Tiny homes can be considered a unique category of affordable housing and face their own set of barriers. Recognizing their benefits, a number of cities are adopting or discussing changes to their land use codes in order to remove barriers to nonconventional housing situations like tiny homes (American Tiny House Association, n.d.). Several online and print sources present strategies for overcoming a number of these barriers. For example, in November of 2015, the American Planning Association released a zoning practice brief to guide communities in accommodating tiny houses (Elliot and Sullivan, 2015).

The academic community also recently began to recognize the benefits of tiny homes and micro-villages. An article in a planning and education journal from Cal Poly explores the potential of micro-villages to provide shelter to the unhoused (Wyatt, 2014). Although academic literature on this topic is relatively limited, two recently released master's theses by tiny house academic enthusiasts from Oregon (Anson, 2015; Mingoya, 2015) and one currently in the works (Jeffrey Albanese from the University of Michigan) indicate growing interest in the use of tiny homes for affordable housing and to alleviate homelessness.

This research asks the following questions:

1. **What are the major barriers to individual tiny houses?**
2. **What are the major barriers to micro-villages?**
3. **What strategies do tiny house residents and advocates use to overcome these challenges?**

Methodology

To learn about the barriers that people faced while attempting to purchase, build or live in a tiny house or micro-village, I conducted 21 interviews between August of 2015 and April of 2016. Initially I identified the types of people with whom I wished to speak, including tiny house residents, advocates of the tiny house movement, people associated with micro-villages around the country, and planners. I began to talk with people who knew about or had an interest in tiny houses and used this network to contact other people to interview. I also accessed contact information from tiny house residents from an online directory.

Location of Interviewees

This research looks at tiny houses and micro-villages from a wide variety of geographic areas including urban and rural settings across the country. I was interested in collecting the stories of people who might have innovative strategies to share with people facing similar challenges in other states or regions.

I interviewed the majority of the tiny house residents over the phone but also conducted six in-person interviews and site visits. To contact people from organizations associated with micro-villages, I accessed contact information for these people from the organization websites. I supplemented the interviews with micro-village representatives by accessing previously published materials documenting the process of forming the micro-village. Appendix A includes a more detailed methodology including interview questions and a list of interviewees.

While the list of questions that guided my interviews remained similar throughout the interviews, each interviewee's unique situation led me to tailor the interview questions to their unique circumstance. This allowed me to most accurately capture the experience of each interviewee. In order to ask more targeted questions about people's experiences with tiny homes, I divided the barriers to micro-housing into the following categories:

- **Technical barriers:** Technical barriers to tiny houses include zoning regulations, complying with building codes (at any jurisdictional level), difficulty accessing or using tools (if self-built), legally transporting a home, and having the technical knowledge to construct a home.
- **Social barriers:** Social barriers include external challenges like opposition from neighbors, other community groups, or local government. Social barriers to tiny homes also include factors that might make it difficult to live in a tiny house or maintain relationships within a micro-village.
- **Financial barriers:** Financial barriers include difficulty securing loans or funding to build or purchase a tiny house, and accessing insurance.

When analyzing interview results, I organized my findings regarding individual tiny homes and those about micro-villages into different chapters. Barriers to individual tiny houses are separated into a single chapter while the strategies people use to overcome them are in a different chapter, organized by barrier the strategy addresses. I grouped these findings by barrier because the experiences of tiny house residents were similar enough that it was easier to draw conclusions by generalizing.

I organized the results of my research on micro-villages differently: barriers and strategies are presented in the same chapter and are organized by micro-village. The formations of micro-villages were very different from community to community and it was more difficult to make generalizations about the experience. Additionally, these histories were more thoroughly documented through written material so I was able to include more detail about each individual micro-village. I treated the five micro-villages as case studies, hoping to share the complexity and uniqueness of each story.

Organization of Report

The next chapter of this report provides background on the popularity of the tiny house movement and examines why a growing number of people are choosing this lifestyle. Chapter 2 also describes how micro-villages can provide a transitional housing option for people experiencing homelessness. Finally, I discuss some critiques of the tiny house movement and introduce some of the barriers that people face while trying to live in a tiny house.

The next three chapters present my findings. Chapter 3 presents the barriers to living in, purchasing or building an individual tiny house. These are organized by category of barrier: technical, social, financial, and other. Chapter 4 details strategies that tiny house interviewees have used to successfully overcome the barriers they faced. Chapter 5 then explores the stories of five micro-villages: Occupy Madison, Second Wind Cottages, Dignity Village, and Opportunity Village Eugene. This section also lists challenges for each micro-village and the strategies that advocates used to overcome them.

Chapter 6 synthesizes my findings and draws policy and community implications from the findings. Finally, Appendix A outlines a more detailed methodology, Appendix B features three individual tiny house case studies, Appendix C offers a more in depth look at the barriers that faced the five micro-villages and explores how they overcame them, and Appendix D contains my references.

Chapter 2: Background

While there is no physical difference between individual tiny houses and the tiny houses used in micro-villages, their configurations and purposes are so different that I treat them differently in my research. Specifically, the tiny house movement and micro-villages have different roots. The tiny house movement traces back to the "Back-to-the-Land" movement, and efforts to live more simply, cheaply and sustainably. The micro-village movement stems from the tent city movement and efforts to supply unsheltered people with housing. These movements overlap but still face different barriers.

The Tiny House Movement

Individual tiny houses are joined in the category of micro-housing by single room occupancy units (SROs), micro units, and modular housing. While there is some grey area when distinguishing between these non-traditional types of housing, tiny houses are individually-standing structures, ranging in size from 80 to 200 square feet.

Benefits of Micro-Housing:

- **Simple lifestyle**
- **Housing choice**
- **Affordable housing**
- **Transitional housing**
- **Low carbon footprint**
- **Independence and mobility**
- **Dignity and self-sufficiency**
- **Communal living opportunities**

Tiny houses are frequently on wheels (often built onto a trailer bed) but are also on foundations. Some have the capacity to hook up to external utilities like sewer, water and electricity and others don't. While tiny homes frequently mimic traditional houses in their designs, appearances vary significantly because many are self-designed and self-built. These tiny houses can offer numerous benefits to their inhabitants and have consequently been growing in popularity.

Recognizing the growing trend of tiny houses, many local governments are taking steps to accommodate tiny houses. In 2014, Spur, TX began to promote itself as the first tiny house friendly city (Morrison, 2014). The town of Walsenburg, CO, recently eliminated their restrictions on houses smaller than 600 square feet to accommodate tiny homes, joined in this effort by a growing number of cities around the United States (Verlee, 2015).

The reasons that people want to live in a tiny house are widespread, ranging from affordability to the potential for a simple and more sustainable lifestyle. The movement has become so popular that some people have even gone as far as to identify tiny houses as the new "American Dream" (Andrews, 2014). Whatever the reasons that inspire people to join or advocate for the tiny house movement, it is clear that this movement is here to stay.

Affordability

The United States faces a drastic shortage of housing that is affordable to people with low and even moderate incomes. According to the 2015 State of the Nation's Housing by the Joint Center for Housing Studies at Harvard University, the percentage of renters paying more than 30 percent of their income on housing costs (considered to be "cost burdened") is near a record high. In 2013, almost half of all renters were cost burdened, and more than 25 percent were severely cost burdened, meaning they pay more than 50 percent of their income for housing (Joint Center for Housing Studies, 2015).

Many tiny house residents view their housing choice as a symbolic rejection of the United States debt culture, where people may spend their entire lives trying to escape from credit card debt, student loan debt, or home debt (Lisefski, 2015a).

This disparity between the cost of housing and what people can afford to pay is a national issue, but is especially predominant in some regions. The lack of affordable housing in some parts of the state of Oregon is particularly severe, being labelled a "housing crisis" and topping the list of 2016 legislative topics (Theriault, 2015).

Renters tend to be cost burdened at higher rates than homeowners, particularly young renters, and households of color. The number of cost-burdened households is projected to increase, especially for single-adult, elderly and Latino renters (Charette et. al., 2015). This is troubling because cost burden can devastate a household: households are forced to cut expenditures on things like food and healthcare to ensure that they can stay housed. To avoid these negative consequences, cities that are unable to meet the housing needs of their residents will need to find innovative ways to increase their supply of affordable housing.

Tiny houses can be an affordable alternative to conventional single-family homes or even traditional apartments. Expectations for housing size in the United States size have increased significantly over the last 30 years, resulting in larger, more expensive housing (Heben, 2014). In 1973 the average size of a single-family dwelling was 1,660 square feet compared to the 2014 average of 2,657 square feet (U.S. Census Bureau, n.d.) Allowing for smaller dwelling units is one way that cities can increase their supply of affordable housing. Faced with rising housing costs, both Seattle and New York have turned to micro-housing in the form of micro-apartments to fill this gap (Kaysen, 2015; Kelleher, 2015).

According to some estimates, the average cost of a tiny house is around $23,000 compared to $272,000 for a traditionally-sized house (Schwartz, 2015). This affordability can promote homeownership at higher levels: 78% of small house residents own their own home compared to the 2015 national owner-occupation level of 63.7% (Schwartz, 2015; Joint Center for Housing Studies, 2015). Because of the potential that tiny homes clearly have to fill a widespread housing need, local governments should do everything they can to decrease the barriers to tiny homes and other innovative types of affordable housing.

A Sustainable and Simple Lifestyle

Tiny house advocates are often drawn to the promise of a simple, more sustainable lifestyle. Some have noted the tiny house movement's origination from the "Back-to-the-Land" movement of the 1970s (Grover, 2012; Kahn, 2012) while others trace the tiny house movement to Thoreau (Bredenberg, 2011; Copperwood, 2013; LaVoie, 2012). In her PhD dissertation in which she describes her experience building and living in a tiny house in Eugene, Oregon, April Anson referred to Thoreau as the grandfather of the tiny house movement (2015). Living in a smaller space, as Thoreau narrates in his 1854 book Walden, forces one to confront their own consumption and encourages more mindful living.

> *Some interviewees indicated that part of their motivation for living in a tiny house was the desire to downsize, simplify, live with fewer belongings, or experience a more mindful and deliberate lifestyle.*

Inspired by Thoreau's work, a couple's widely publicized retreat into the woods to live in a tiny house was featured in a 2011 video called "Thoreauvian simple living: unelectrified, timeless tiny home" (Dirksen, 2012). The trend of using tiny houses to simplify one's life is also illustrated through the media-documented experience of a family who moved into a tiny house in the woods specifically to live "off the grid" (Mammone, 2014).

In addition to providing the means for a simple lifestyle, tiny houses are appealing because of their potential for a more sustainable lifestyle. Tiny houses have a smaller carbon footprint due to their size. Buildings contribute one-third of greenhouse gas production so smaller buildings contribute less carbon (Schwartz, 2015). A 2012 study by the Oregon Department of Environmental Quality concluded that the top way to decrease a home's environmental impact is to reduce its size (Palmeri, 2012).

Mobility

Another reason that many people cite for adopting the tiny house lifestyle is the flexibility and freedom that a house on wheels can provide (Odom, 2014). While wanting to travel and seek opportunities for career advancement, people often still seek the stability and financial investment that homeownership can provide. Tiny houses on wheels can provide some of the benefits of homeownership while still allowing individuals to relocate as desired.

> *Many people I spoke with have moved their houses around at least once, and some even noted that the mobility of a house on wheels was part of what drew them to a tiny house in the first place.*

Independence

While not appropriate for everyone (particularly larger households), tiny houses can meet the diverse housing needs of a variety of demographics. Some, including the American Association of Retired Persons (AARP), have noted that tiny houses could be appropriate for the growing baby boomer population for a number of reasons (Kennedy, n.d; Ridge Runner Tiny Homes, 2014; Kaufmann, 2015). Many elderly people wish to downsize from a larger home but may not be ready to move into a group or assisted living setting.

Tiny houses can offer affordable and low-maintenance homeownership while still allowing for independent living. When my own grandparents were no longer able to live independently they moved into a tiny house in the backyard of my uncle's Camano Island home. They had their own space with little required maintenance, were close enough to my aunt and uncle that care was easy, and maintained some independence.

Temporary Emergency Housing

In addition to being an affordable form of longer-term housing, tiny houses can also provide a cheaper form of temporary emergency shelter. A recent study found that the shelters that FEMA construct during disasters like Hurricane Katrina cost more than $70,000 each (including construction, transportation, maintenance and decommission; Bredenberg, 2011). In response, a new organization called Katrina Cottages specializes in facilitating the design, construction, and deployment of cottages (often paid for through donations) that serve the same purpose as FEMA shelters but are higher quality and even cheaper (Katrinacottagehousing.org, 2016). These cottages are usually around 300 square feet in size and cost less than $70,000 a piece (more expensive than most tiny houses but still cheaper than FEMA trailers; Katrinacottagehousing.org, 2016).

Katrina Cottages can provide dignified, safe and affordable shelter accommodations for survivors of natural disaster.

Images from: katrinacottagehousing.org

Micro-Villages

Like individual tiny homes, micro-villages (communities of free-standing tiny houses) can also provide a needed form of housing. Thousands of people across the country suffer from an inability to access shelter or housing. The January 2015 Point in Time Count of Homelessness found that on one night in January, 564,708 people (nearly 0.2% of the population) experienced homelessness across the United States (U.S. Department of Housing and Urban Development, 2015 b). Housing instability is widespread and ranges from chronic homelessness (continuous homelessness for more than a year or at least four episodes of homelessness in three years) to people who may experience only one episode of housing instability (U.S. Department of Housing and Urban Development, 2015 a). For the nearly 600,000 people who cannot afford or access housing for other reasons, nonconventional forms of housing and shelter have the potential to offer creative housing solutions.

Often as a local response to homelessness, micro-villages have been popping up in cities across the United States since 2009 (Heben, 2014). Many of these communities evolved from a local tent city (an unsanctioned grouping of tents or shelters for people experiencing homelessness), and eventually emerged as city-sanctioned communities.

Micro-villages are not an ideal living situation for everyone, but have the potential to provide needed housing and shelter to the thousands of people who suffer from housing instability or homelessness. The micro-village model also provides an important source of community and "sense of belonging" to residents who may have been perpetually excluded from mainstream community in the past (Heben, 2014). This can promote stability and, if appropriate for the individual, the support necessary to transition to permanent housing and achieve meaningful employment.

Micro-villages are widely recognized as successful models of permanent supportive housing for people who would otherwise be unable to live in a stable home (Murphy, 2014; Community

DESIGN PROGRAM
13 Tiny Houses (120-130 sq. ft.)
Common Kitchen
Gathering Area
Restrooms, Shower, Laundry Complex
Raised Garden Beds
Resident Parking
Bus Stop Access

Concept plan of an upcoming micro-village in Eugene, OR: Emerald Village Eugene (EVE). This micro-village will be the first to provide mixed housing targeted at both people experiencing homelessness and traditionally housed people. Image modified from EVE site plan, retrieved from http://www.thevillagecollaborative.net/

Frameworks, 2015; Bagshaw, 2014). A recent journal article by a former Planning Commissioner of San Luis Obispo concludes that micro-villages provide people experiencing housing instability or homelessness with safety and protection, dignity, self-sufficiency, and community (Wyatt, 2014). The National Low Income Housing Coalition released a report that presents Quixote Village as an example of how micro-housing can effectively provide housing opportunities affordable to extremely low-income populations, particularly people experiencing homelessness (2014).

Image of a proposed micro-village in Walla Walla, WA intending to provide transitional housing to people experiencing homelessness. Image retrieved from: http://wwalliance.blogspot.com/

Along with providing self-sufficiency and a stable living environment, micro-housing also aligns with one of the most effective approaches to ending homelessness: "housing first". "Housing first" describes the practice of providing unhoused people with homes before expecting them to gain employment, recover from addictions or treat mental illness (U.S. Department of Housing and Urban Development, n.d.). The benefits of the housing first approach are described by a number of homeless advocacy entities such as the United States Interagency Council on Homelessness (USICH), the National Alliance to End Homelessness, and the Department of Housing and Urban Development (HUD). Tiny houses in the form of micro-villages can also provide permanent, supportive housing more cheaply than shelters or other subsidized housing (Community Frameworks, 2015). For example, a development of cottage-style micro-homes in Dallas, TX, is projected to save taxpayers around $1.3 million (Goldberg, 2015). Ultimately, micro-villages are not the solution to every type of homelessness but they do have a vital role to play in providing housing and helping people transition to permanent housing.

Image of tiny houses at Opportunity Village Eugene, a micro-village for previously unhoused people in Eugene, OR.

http://www.opportunityvillageeugene.org/

Critiques of the Tiny House Movement

The tiny house movement is certainly not without its faults. In addition to enjoying extensive praise, the tiny house movement is also widely criticized in academic research and the mainstream media. Criticism ranges from accusations of greenwashing to elitism to the romanticization of a lifestyle that is neither practical nor enjoyable. This section outlines some of these critiques.

Commodifying Affordability

Even though simplicity and frugality are central to the tiny house movement, companies are quick to turn a profit by marketing the "tiny house lifestyle". Many tiny house advocates have noticed this commodification of what, to some, is a movement based on the rejection of materialism and consumption, asking if we have "lost the soul of the tiny house movement" (Anson, 2015; Diedricksen, 2015; Nicole and Maggie, 2014; Lisefski, 2015b). Others recognize the irony of companies selling $750 plans for an affordable lifestyle while others sell fancy pre-fabricated tiny homes for well over $100,000 (http://www.tumbleweedhouses.com; http://wheelhaus.com; Modery, 2015).

> *Many interviewees identified that part of their motivation for adopting the tiny house lifestyle was the rejection of material goods and the chance to live simply. However, several people were building their own tiny home for the sake of having a secondary or vacation home.*

Romanticizing Poverty

Some tiny house advocates have also stated their concern that the tiny house movement may romanticize poverty. Many households from impoverished communities around the globe already live in "tiny house communities" (such as in Sudan; Lunn, 2015). When affluent or middle class people elect a cheaper lifestyle, they can choose to experience the benefits of the lifestyle without having to experience the negative aspects. As one writer notes, glorifying this lifestyle has the effect of trivializing the true experience of poverty: "Poverty, after all, is not about bookcases made of planks and bricks but about utter hopelessness" (Cohen, 2012). The appropriation and trivialization of poverty can alienate people from mainstream culture and also increase the cost of a lifestyle that, for some, is a necessity rather than just a trendy option (Westhale, 2015).

A similar issue emerges when the tiny house movement is compared with another form of affordable housing: trailer parks or manufactured homes. One online writer points out that aside from being visually appealing, tiny homes are not that different from trailers but are still treated differently in the media (Santhian, 2015). Trailer parks are marked by the stigma of poverty while tiny houses seem to embody ingenuity, sustainability, and minimalism (Pino, 2013).

Finally, one writer in particular noted that when people liken their adoption of the tiny house lifestyle to escaping from the burdens of modern-day society or "retreating into the "wilderness"", this perpetuates the western appropriation and colonization of outdoor space that dates back centuries to early settlement (Anson, 2015).

Privilege and the Tiny House Movement

Critics of the tiny house movement have also pointed out that the tiny house movement embodies privilege in some ways. Online bloggers note the overwhelming whiteness of the tiny house movement and have commented that upper-middle class individuals are frequently the face of the movement even though it is also accessible to low-income households (Nicole and Maggie, 2014).

Some of this trend may be because building or purchasing a tiny house is an option that is arguably more viable for white, middle class individuals. People who want to live in a tiny house must sometimes take legal risks when they operate outside of legal permitting processes. These risks may be more serious to individuals who have a less robust financial safety net or who, due to their physical appearance, may be subject to increased profiling by law enforcement. Additionally, living in a tiny house can require access to more substantial amounts of capital and land. Individuals wishing to live in a tiny house frequently must be able to pay the costs up front because it can be difficult to borrow funds to buy or construct a tiny house.

Many interviewees paid their initial costs either out of pocket or got a loan from a friend or family member. Additionally, interviewees noted that living in a tiny house often requires an individual to either own or have access to private land.

Other factors may keep the tiny house lifestyle from being a viable option for some individuals. For example, tiny homes are rarely ADA accessible and may not be appropriate for people with limited mobility. The small dimensions make it difficult for a wheelchair to maneuver through the space, and many houses have lofts that count as the bedroom space. Only a few companies build tiny homes that can be designed to be ADA accessible, but many tiny homes must be specially designed to accommodate wheelchairs (http://seattletinyhomes.com/magnolia/; LaVoie, 2013).

Tiny Houses Are Temporary

While they have the potential to be affordable, sustainable, and offer independence, tiny house living may not be a long-term solution. As noted above, unless designed specifically for them, tiny homes marketed in the mainstream media are rarely accessible to aging populations. Additionally, it could be difficult to raise a family in such a small, confined space tiny houses are an option for very few households with children (Lisefski, 2015a).

Most tiny house residents that were interviewed for this project only lived or planned to live in their tiny house for three to five years (unless it is a second home).

Barriers to Tiny Houses

Although tiny homes are widespread and growing in popularity, significant barriers still keep them from being implemented as widely as they could be. Advocates for tiny houses identify many of the same difficulties. The Tiny Life, a popular tiny house website, separates the top barriers to the tiny house movement into: land (cost to own and finding a place to park), loans (difficulty accessing financing through a bank), laws (land use and building codes), social pressure (cultural unacceptability of non-conventional living arrangements), and the fear of committing to a potentially turbulent lifestyle (Mitchell, 2012). Other people wishing to live in a tiny house may face resistance from neighboring businesses or residents, or experience the challenges that accompany living in a small confined space (Lisefski, 2015a). A contributing factor to many of these barriers is that tiny houses currently exist in a grey area of legality, or are illegal, in many places.

Government Regulation of Tiny Houses
Although tiny houses have been around for years, most cities are still figuring out how to regulate them. Some cities treat tiny houses on wheels as recreational vehicles instead of houses, often limiting where and for how long they can be parked. Some cities permit tiny houses on a foundation outright while others completely outlaw them by having minimum dwelling unit requirements built into their codes and ordinances. These approaches vary by location, partly because zoning ordinances and building codes vary from city to city. Codes and land use specifications also complicate tiny house living in other ways: requirements for parking provision, lot coverage ratios, density limits and restrictive covenants can all limit where and how people can inhabit unconventional types of housing (Community Frameworks, 2015; Heben, 2014).

Local zoning ordinances (and a general uncertainty about tiny houses themselves) can also make it difficult for a community of micro-homes to exist together legally (Heben, 2014). Micro-villages exist legally in cities across the country but few are treated the same. Opportunity Village in Eugene, Oregon, is permitted as a homeless shelter while the upcoming Emerald Village Eugene (essentially the same model, simply targeting a different demographic) is treated as a multi-family development (Heben, 2014; DiNatale, personal communication, 2016). The houses at Occupy Madison are permitted as "portable shelter units" while those at Quixote Village are considered SROs (Strange, 2014; Community Frameworks, 2015). Until cities find a uniform way to accommodate tiny houses and micro-villages in their legal frameworks, living in, building, or buying a tiny home or micro-village will continue to be fraught with challenges.

Conclusion

Tiny houses and micro-villages can meet a variety of housing needs. Tiny homes offer affordability, sustainability, and independence, while micro-villages provide supportive housing to people experiencing homelessness. However, no movement should be examined without acknowledging its weaknesses. In some ways, the media-popularized tiny house movement has been co-opted by capitalism: once based on a rejection of material goods and debt culture, this movement is now defined by a celebration of the houses' "cute factor".

These few negative aspects do not completely negate the vast potential of this type of housing. While the barriers and criticisms to tiny houses and micro-villages are abundant, these critiques only tell us that tiny homes are not the only solution to the nation's affordable housing crisis. No one type of housing will be perfect for everyone; housing solutions need to be as unique as the people they serve, and tiny homes should be treated as one potential rung on the ladder of housing options.

Unfortunately, a wide range of barriers prohibit tiny homes (both individual and in micro-villages) from being as widely adopted as they could be. A preliminary exploration of some of these barriers inspired this research, which takes a deeper look at these barriers. Specifically, this research seeks to identify what these barriers are and how individuals and organizations overcome them, with the hope that more people wishing to build, buy, or live in tiny houses will be able to do so in the future.

Chapter 3: Barriers to Individual Tiny Houses

This section outlines the primary barriers that individual tiny house residents identified during their interview with me. Barriers are organized into four categories: technical, social, financial, and other. Table 1 presents these barriers in tandem with the strategies that tiny house residents used to successfully overcome these barriers. The number in parenthesis after the barrier indicates how many interviewees experienced that particular barrier. Barriers are color-coded according to category: technical barriers are shown in green, social barriers are shown in blue, financial barriers are shown in pink and other barriers are shown in gold. This chapter describes each barrier in detail, organized by category. The strategies are outlined in Chapter 4.

Table 1: Individual Tiny Homes Barriers and Strategies

Category	Barriers	Strategies
Technical	Tools and technical skills (5)	Tool and skill-sharing model
	Zoning and land use (3)	Find cities that accommodate tiny houses; Seek ADU status
	Meeting building code (2)	Engage with local government early
	Lack of legal address (3)	Use friend or neighbor's address or P.O. box; Use address not attached to structure
	Transporting home (2)	Register as travel trailer
	Repairing unit (1)	Unofficial skill-sharing
Social	Negative perceptions (3)	Early neighborhood outreach; Change dialogue about tiny homes
	Having a family (2)	Multiple tiny homes in proximity
	Isolation (2)	Usable outdoor space; Communal space
Financial	Accessing insurance (5)	Register as travel trailer; Tiny home insurance (Lloyds of London); Insure through rental or auto insurance; Insurance co-op
	Financing construction (4)	Personal loan; Finance through friends/family/community
Other	Finding a place to park (3)	Property of friend/family; Advertise need for space
	Accessing utilities (3)	Avoid reliance on external utilities; Connect plumbing to RV greywater tank; Connect to well or nearby property

Tools and Technical Skills
The most common technical barrier that interviewees talked about was accessing the **tools and technical skills** to build a house themselves. Because it was much cheaper to do so, many people sought to build their own house. Unfortunately, many tiny house residents initially lacked the technical construction expertise to do this safely and efficiently. Also, several interviewees noted that it would have been costly for them to buy the tools that they needed to build their own house. A few people purchased plans which made this process slightly easier, but others wanted to design their own homes. Designing their own home added an element of difficulty to the process, and increased the likelihood that they would make mistakes during construction. An additional barrier that one interviewee mentioned was the difficulty of building onto a trailer. Many people build their house onto a trailer to facilitate easy movement and get around some building codes, but this was difficult because the dimensions of the house had to fit the existing trailer.

Lack of a Legal Address
Three tiny home residents identified the **lack of a legal address** as a significant source of hardship. Many tiny homes are illegally located on someone's property, are not legally permitted structures, or are not permitted to be a primary residence. This means that residents may have difficulty using that house for a legal address. Without a permanent, legal address, one interviewee noted that it was difficult to have mail delivered. Another interviewee was troubled by the lack of a legal address at her tiny home because she could not get a cost quote on solar panels.

One tiny house resident in Washington, D.C., didn't have a legal personal address that he could use for formal documents, and he had to use his work address for these. Consequently, the address on his driver's license was outdated. One option would have been for him to not have any address on his license but that would have required a case manager to confirm that he was legally homeless (Austin, personal communication, 2015). Finally, another tiny house resident who I interviewed struggled with the lack of a legal address for a different reason. To legally occupy their tiny house, she and her partner needed a certificate of occupancy from the county. To get the certificate of occupancy, they first needed to have homeowners' insurance which they could not get because their home was not a legal structure and did not have a legal address.

Many tiny homes are built onto trailers so they can be moved.

Transporting House
Another barrier that has posed a hardship for some tiny house residents is the difficulty associated with **moving their homes**. Many tiny house residents build their home onto a trailer with wheels so that they can move them. This can end up being much more difficult than they anticipate. Each state (and even some local jurisdictions) has unique requirements for when an oversized load permit is needed. This is usually based on height, width, weight, and overhang. People transporting their tiny home may need to get a permit for each jurisdiction that they pass through which, according to one interviewee, isn't particularly expensive but is a hassle. Restrictions as to what

can be transported on federal, state and local roads limits options in terms of building external features: one interviewee couldn't build the deck that she wanted. Also, one interviewee noted that finding a vehicle to tow their tiny house posed some difficulty. She couldn't rent a truck to tow her house because the rental companies all had policies stating that their trucks could only tow their own trailers.

A couple in Colorado faced some difficulty with transporting their house as well. They originally registered the trailer under their home as a Park Model Travel Trailer which made it easier to title their house. [1] When they tried to have their house entered into the registration system, however, the system wouldn't accept 8'6'' for a Park Model trailer. They had to list the width as 9' which means that they will need a permit to move it. They now have to return to the office and see if they can re-title their house as just a Travel Trailer rather than a Park Model travel trailer.

Accessing Repairs
Another technical barrier that complicates the lives of tiny house residents is finding people who are willing to do **repairs** in a tiny house. Knowing how to repair miniature-sized systems, such as plumbing or electrical wiring, requires specific training. People with this knowledge are generally only trained and insured to conduct repairs in R.V.s. Many repair people are therefore unwilling to repair tiny homes, because they are not insured to do so. In situations like this, a tiny home owner in need of repairs is left in a vulnerable position: because the labor is often unofficial and off the clock, the repair-person can charge as much as they would like (Anson, personal communication, 2015).

Meeting Building Codes
Several tiny house residents identified meeting **building codes** as a significant challenge. This adds cost and limitations to tiny house designs. According to one interviewee, to meet national building code, one of the windows in a house must serve as a second point of egress (Stokes, personal communication, 2015). In one situation, after they had built their house, tiny house residents in Oregon faced several issues that kept their home from being legally approved for occupancy. A stair riser was one inch too high, the head clearance at the top of the stairs was not high enough, and the lofted sleeping area didn't count as a bedroom. While the International Residential Code (IRC) requires that dwelling units have at least one room measuring 70 square feet in gross floor area (down from the previous minimum of 120 square feet), these requirements are set at the local level and vary quite a bit (International Code Council, 2015, R304.1; R304.2).

A tiny house resident in Eugene has had trouble finding someone to repair the plumbing in her miniature sink.

According to one tiny house architect I interviewed, meeting **building codes** is also a challenge when it comes to **designing** a tiny house (Pruitt, personal communication, 2015). Local building codes may require that building materials meet certain ratings for energy efficiency, which is often determined through modeling software. However, modeling software pulls rating from a database of materials and does not include the R-value settings for tiny houses. To meet requirements, designers are often forced to significantly overdesign the

[1] A "park model" travel trailer, as categorized in 2012 by the Recreation Vehicle Industry Association (RVIA), doesn't require a special movement permit when less than 8'6'' in width, but wider ones require a permit (Recreational Vehicle Industry Association, n.d. a).

energy efficiency of a tiny home, adding extra cost and materials. These restrictions also limit the materials that can be used (non-traditional building materials don't have the required R-values), adding cost and inflexibility to the design and construction process.

Complying with Local Zoning Ordinances

In addition to meeting building codes, tiny house residents must also meet requirements set by **local zoning ordinances.** According to several interviewees, regulations like these make it hard to build and reside in small structures. What complicates meeting these requirements is how greatly building codes and land use ordinances vary across cities and states. These barriers are much more severe in some areas than they are in others. In Fairfield, Iowa, one tiny house resident couldn't have their tiny house within the city limits because the smallest size allowed for a dwelling unit was 700 square feet (Greene, personal communication, 2015). Rural areas outside of city limits (like farm land) often have fewer restrictions but come with their own problems such as limited access to resources, isolation, and increased commute times. These restrictions don't always keep people from building or living in a tiny house, it just means that some tiny houses are not legal to occupy, adding increased difficulty to people's lives. Additionally, in states that carefully restrict land use on farmland (like Oregon), locating in these areas can actually be even more complex.

Social Barriers

Small and Isolated Space

Social barriers were much less common than the technical barriers that some tiny house residents identified facing. Primarily, interviewees had the perception that living in such a small and potentially **isolating space** limited their ability to cultivate relationships with others. One tiny house resident indicated that living in such a small space could make it challenging to live with his significant other and complicate (but not eliminate) the possibility of having children (Odom, personal communication, 2015). Many tiny house residents are finding that it is often easier to park their tiny house outside of city limits or in rural areas. This means that they are often isolated from social activity and far from school, work, and appointments. Living in such a small space can also make it difficult for some tiny house residents to host guests, especially overnight, which contributes to a sense of isolation.

Perceptions

Tiny house residents also face a different type of social barrier: **perceptions of what it means to live in a tiny house**. Some interviewees noted that other people often assume that such a small space is not livable. This contributes to the lack of acceptance of tiny houses as legitimate types of living space, decreasing the pressure on local governments to update codes to accommodate tiny houses. Related to a misunderstanding of what it means to live in a tiny house, some people also faced opposition from neighbors who did not want a tiny house parked near their home. According to one tiny house resident, people have a fear of tiny homes and micro-communities becoming the next trailer parks (Alfano, personal communication, 2015). This opposition could be in response to uneasiness with a non-conventional type of housing, concern for the impact on property values, or fear of new neighborhood demographics (i.e. young, low-income, or transient).

Accessing Financing

Almost every interviewee identified that **accessing the funding** to build or purchase their house presented a significant barrier. It is possible that the promise of an affordable home invites people to invest without actually having the financial stability or resources to pay for the home in cash. The inability to access funds to cover the upfront costs is a significant barrier because few banks will loan money to buy or build a tiny house. This unwillingness is likely due to the fact that tiny homes are most often not considered legal homes due to local building and zoning codes. This means that people have to build slowly, finding funding as they build. This is problematic if they have nowhere else to live, have to rent the tools they are using, or have to rely on the kindness of someone else for the use of land or space. Some tiny house residents had to take out a personal loan to pay for their tiny house which comes with a higher interest rate, and doesn't have the same tax benefits as those associated with loans for purchasing a traditional home (Austin, personal communication, 2015).

Insuring a Tiny Home

Every tiny home resident I spoke with faced challenges while trying to **insure their home**. Tiny homes fall in a grey area of insurance. Owners of tiny homes are denied homeowners insurance because insurance companies don't consider them "homes". Tiny homes can't be insured as manufactured housing because they are often less than 320 square feet. They often cannot be insured as personal property, although this is the most common type of insurance for tiny homes. Tiny homes usually can't be covered by auto insurance because they are not self-propelled. They can only be insured through RV insurance if they are RVIA (Residential Vehicle Industry Association) certified, which comes with its own restrictions (see next section).

Even when tiny home residents do find an insurance policy that will work for them, when their living situation changes they are often forced to find a new solution. One interviewee had their tiny house insured as a shed but this policy would no longer cover them once they decided to live in it (it would be considered a residence). This would change again if the owner wanted to rent out their tiny home: it would then be considered a business and require a different type of insurance (Greene, personal communication, 2015). One interviewee in Virginia asked around and found that the type of insurance she could access for her tiny house was completely dependent on where she wanted to park her home (Stokes, personal communication, 2015). Even the few companies that do offer insurance specifically for tiny houses will not insure it while moving because of the liability. An interviewee in Oregon found an insurance agent who was willing to write up a contract to insure her house, but the contract was cancelled after a year. This happened two or three more times with different insurance companies, and her house was not insured at the time of the interview (Anson, personal communication, 2015).

Another barrier that many interviewees mentioned was difficulty finding a **place to park** their home. The legality of parking a tiny home is dependent on local ordinances, whether or not it has wheels, and if it is **RVIA certified**. One interviewee in Austin explained that local code dictated that her tiny house could be parked in a yard but had to be surrounded by a fence so that it couldn't be seen from the street (O'Brien, personal communication, 2015). Another interviewee found that she could park her home in some mobile home parks, but only if it were RVIA certified. If she were to park her home in a yard or driveway, it would only be legal if the home were not her primary

residence. Not ready or able to purchase her own piece of property, she knows that she will have to rely on the kindness of others (Stokes, personal communication, 2015). Many tiny house owners can park their home in the driveway or yard of a friend or family member, but often this is only a temporary solution: if the home is on wheels and treated as an RV by local ordinances, the resident may be legally limited to a 30-day stay. Often the easiest way to find a place to park is to own the land, which is a cost-prohibitive option available to few.

Many interviewees expressed confusion about pursuing **RVIA certification** for their tiny home on wheels. The Recreational Vehicle Industry Association (RVIA) certifies recreational vehicles to ensure that they meet standards for materials and design (Recreational Vehicle Industry Association, n.d. b). This certification offers benefits but also limits the legal occupancy of tiny homes. Interviewees found that some RV parks would only allow RVIA certified homes to park there. However, RVIA certified structures cannot legally be used as a primary, permanent residence. Some RVIA certified tiny homes may be considered park model RVs (i.e. Recreational Park Trailers) but then must be licensed as motor vehicles and intended for temporary accommodation. Park model RVs are often larger and look more like traditional homes than conventional travel trailer RVs (not motorized) or motorized motorhomes (Recreational Vehicle Industry Association, n.d. c). A lack of standardized treatment of tiny houses and limited availability of information greatly complicates all of this.

A final challenge that many tiny house residents talked about during interviews was the difficulty associated with **accessing utilities.** In general, many tiny home residents have been forced to work around not being able to connect their home to utilities (including water, electricity, gas, and sewer). Many tiny houses are designed to be hooked up to external electricity and water, but depending on where they are located, it can be difficult to negotiate the logistics of connecting to these needed resources. Because providing utilities to such a small and mobile structure can be complicated, some tiny house residents specifically designed their houses to not be connected to external utilities and instead to have their own rain barrels or solar panels. These strategies are discussed in more detail in the next chapter.

Conclusion

After talking with 11 tiny home residents about the challenges that they have faced while building, buying or living in their tiny house, one major trend emerged. Tiny homes exist in a grey area of legality that makes it complicated to finance, insure, repair or park them. Much of this comes down to the legal definition of a house and how structures that don't meet this traditional definition are not treated as legitimate residences in local codes. Much of this could be because the tiny house movement is still relatively new and many systems are slow to adapt to new trends. As tiny houses continue to increase in popularity, the increased demand for them will likely draw attention to how these currently prohibitive systems can be altered to accommodate nontraditional housing structures.

Tiny house residents primarily face challenges on an individual level, but the common experiences across the country make it clear that the movement still has ground to cover. Tiny houses are novel and interesting, but for the most part are not accepted by communities or governments as a legitimate type of permanent housing. While parts of this challenge can be addressed at the structural level (building codes and zoning ordinances can legalize tiny homes), many of these challenges must be overcome at the individual level. These pervasive barriers require tiny house residents to find creative solutions to their problems. Many of these strategies are outlined in the next chapter.

Chapter 4: Strategies for Individual Tiny Houses

The creativity that leads many people to seek out the tiny house lifestyle also allows them to find creative strategies to overcome barriers to their chosen lifestyle. The tiny house community also shares their strategies widely on the internet, illustrating the communal atmosphere of the movement. Interviewees were eager to share their experiences with me in the hope that future tiny house residents could benefit from their experiences. This section summarizes some of the strategies that individual tiny house advocates and residents identified as having helped them overcome barriers that they faced. Strategies are organized by barrier, color-coded to indicate the category in which they fall. Green shading indicates a technical barrier, blue shading indicates a social barrier, red shading indicates a financial barrier, and yellow indicates other barriers.

Strategies to Overcome Technical Barriers

Lack of Tools and Technical Skills: Tool and Skill Sharing Program

Several people identified a lack of tools and technical skills as a factor that complicated the process of building their own tiny house. An organization in Virginia has developed an innovative solution to help people overcome this barrier: **a tool and skill sharing program**.

"Build Tiny" provides a solution for people who lack the space, knowledge, or tools to build a tiny home. This organization operates on a farm outside of town. The organizer is a licensed general contractor and has plenty of tools and construction space to spare.

She pairs workshops on how to build a tiny home with people who need volunteer labor to help with building their home. People who are building their homes can rent living space from her to live in while they construct their home. She also builds and sells tiny houses

Build Tiny provides prospective tiny house residents with the space, tools and assistance to build their own homes.

herself, working on several projects at once. This organization currently faces some land use barriers but continues to operate effectively (Hayes, personal communication, 2015).

Transporting Home: Registering as a Travel Trailer

Difficulty transporting a tiny home was widely-identified to be a significant barrier to the independent lifestyle that many tiny house residents desired. However, one tiny house resident in Maryland learned that if he registered his tiny house as a **travel trailer,** he could acquire a title and registration for his home and then transport it legally. In Maryland this process included a sizable fee, required specific stickers, and had certain restrictions. However, registering his house as a travel trailer in Maine required fewer restrictions and saved him a few hundred dollars (Alfano, personal communication, 2015).

A couple living in a tiny house in Colorado registered their tiny home as a park model travel trailer in the state of Texas (where their legal address is). The company that they purchased the home from (Tumbleweed) had legally modified the original flatbed trailer into a park model travel trailer when they put the house on it. When the couple purchased the home, they were supplied with the associated Vehicle Identification Number (VIN) and required stickers (Maighen, personal communication, 2015). Buying a house that was legally modified as a park model travel trailer made it much easier for them to transport it legally.

Lack of Legal Address: Attach Address to Land; Use Address of Friend or Family

Residents of tiny houses have found creative solutions to the challenge of accessing a legal address. While many cities require there to be a legal structure for a piece of property to have an address, **some counties allow parcels of land to have their own address**. One interviewee bought land outside city limits in an Oregon county and is able to have a legal address for her property even though she is not currently living in a legal structure (Morrison, personal communication, 2015).

Another resident of a tiny house in Virginia uses a **friend's address** in a nearby county for her legal place of residence, and has her mail sent to a local P.O. box (Stokes, personal communication, 2015). A tiny house resident in Eugene, Oregon, has been parking her tiny house in the **backyard of family members** so she is able to use the address of the main house as her legal address (Anson, personal communication, 2015). This is a strategy likely to work in cities that allow people to live in tiny homes on the property of others. For example, the City of Eugene has an ordinance that allows one "family" to camp on the property of another single family residence (City of Eugene Building and Permit Services, 2014).

Meeting Building Code: Work with Local Government Early

As noted in the previous chapter, meeting local and state building codes can be difficult for a number of reasons. One couple faced this challenge when they built their own tiny house; because their construction was not permitted, they did not build the house to meet code and it was not a legal structure. Instead of waiting for a notice that they were in violation of code, they decided to be upfront with the County about the illegality of their structure. They talked directly to the County which ended up being really accommodating of their illegal structure and agreeing to work with them through the process (Morrison, personal communication, 2015). **Working with public agencies early in the process**, and even after construction, can help tiny house residents avoid conflict as well as costly citations.

Zoning and Land Use: Find Jurisdiction that Allows Tiny Houses

Tiny house residents have identified one particular strategy to overcome zoning and land use barriers: picking their hometown strategically. Certain cities and states are more accommodating to tiny houses than others and many individuals acknowledged moving to

a particular jurisdiction that was more accommodating to tiny homes. Other interviewees learned that working with local governmental agencies and being straightforward about plans made permitting processes much easier (Morrison, personal communication, 2015).

Some of the main ways that local governments can eliminate barriers to tiny houses include decreasing or eliminating minimum size requirements for dwelling units or allowing tiny houses on wheels to be used as primary places of residence. Cities that have already eliminated minimum size requirement for houses include Sarasota County, FL, Union Mills, NC, Newfield, NY, Philadelphia, PA, and Spur, TX (American Tiny House Association, n.d. a). For more discussion on how governments at all levels can accommodate tiny houses, see the section on policy implications in Chapter 6.

Accessing Repairs: Seek Informal Service

A tiny house resident in Oregon has had difficulty finding people to do repairs in her house because frequently the people who know how to repair R.V.-sized systems are only insured to repair R.V.s and are unwilling to repair tiny homes. This person was able to reach out to someone in the community who had this technical knowledge and who was **willing to work informally**. This allowed her to have the repairs done without the repair person having the liability of not being licensed or insured to repair that type of unit (Anson, personal communication, 2015).

The unique features of a tiny house can make it difficult to find someone willing to do repairs. (From left to right) Anson, in Eugene, built a desk into the wall next to the door. Her tiny shower area contains a toilet which can create problems with leakage and plumbing. Custom windows follow an arched contour above her door and add extra light to her home during the daytime. Finally, a cat-door built into the wall below her desk allows furry friends to come and go as they please.

Strategies to Overcome Social Barriers

Having a Family: Separate Sleeping Quarters Nearby

Having a family in a tiny house can be difficult or impossible. One couple who wanted to live in a tiny house realized that they wouldn't be able to fit their entire family in the small quarters. They had two children: a 19-year-old son and a 15-year-old daughter. To allow the family to live in proximity but not force everyone to live within the same 207 square feet, the parents built each of the children their own **separate sleeping quarters on the same land**. The parents live and sleep full-time in their tiny house and share the bathroom and kitchen with their children. The son lives in a nearby tree house and the daughter lives in a nearby cottage. This gives the high school-aged children privacy without isolating the family members from each other (Morrison, personal communication, 2015).

### Isolation: Usable Outdoor Space; Convert to Second Sleeping Space

Living in a space that is too small to accommodate guests (especially overnight) can act as a barrier to tiny house residents who want to maintain a high level of social interaction. One tiny house resident knew that this would be a problem for her when she built her house so she designed a convertible couch that can be used as a **second sleeping space.** Technically, her 128 square foot house can sleep up to four overnight guests (Anson, personal communication, 2015).

Other people have accommodated their desire to host social events by developing **usable outdoor space**. For one tiny house resident, the use of this space is weather-dependent but she can host events in the yard space just outside of her house (Anson, personal communication, 2015).

Tiny house residents in Virginia built usable outdoor space for entertaining visitors (right).

Couch space can double as a second sleeping area for guests (left).
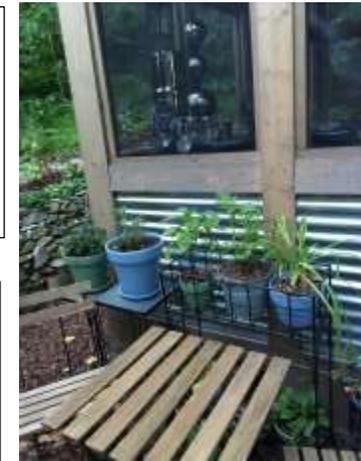
Negative Perceptions: Outreach to Neighbors; Change Dialogue

One resident of a tiny house in Washington, D.C. was challenged by the negative perceptions that neighborhood residents had toward tiny houses. When he and a few other people purchased a piece of land in a residential neighborhood to park their tiny houses on, neighbors were concerned that this would draw visitors, causing noise and decrease property values. This group of tiny house residents went around the neighborhood putting up flyers about their houses, attended community meetings, and created a listserv to update neighbors about the goings-on within their trio of houses (Austin, personal communication, 2015). This outreach put neighbors at ease and, because they developed relationships with the residents of the tiny houses, they never received any formal complaints.

Another tiny house resident has been challenged by the lack of support her friends have had for her choice of the "tiny house lifestyle". She and her husband are in their sixties and downsizing from their traditionally-sized home to their tiny house has been met with skepticism. Many people think that "tiny" means "unlivable" and that "micro" means "crowded". She and her husband have been working to **change the dialogue around tiny houses** (Brady, personal communication, 2015)**.** This means making sure people see how functional and aesthetically-appealing these spaces are, and sharing stories about how happy people are to live in tiny houses. Ideally, eliminating the perception that tiny houses are not uncomfortable, dysfunctional, or impractical spaces will lead to more support through zoning and other code reforms that accommodate micro-houses and other non-conventional living arrangements.

Strategies to Overcome Financial Barriers

Accessing Insurance: Insure as Travel Trailer; Lloyds of London; Creative Rental Insurance Policy

Tiny house residents have found numerous creative solutions to overcome difficulties with insuring their tiny homes. One Maryland resident found that **registering his home as a travel trailer** make it easier to insure because the title and registration mean he can insure it as a travel trailer (Alfano, personal communication, 2015). Other tiny house advocates have come across **Darrell Grenz**, an insurance agent in Portland, OR, who created a modified homeowners' insurance policy specifically to cover tiny houses (American Tiny House Association, n.d. b). Unfortunately, this company is unwilling to cover the houses while people are transporting them due to increased liability (Morrison, personal communication, 2015).

Another tiny house resident was able to insure his home through a rental insurance policy registered at his partner's address (Austin, personal communication, 2015). One couple in Virginia is looking into getting a renter's insurance policy from their auto insurance company. This wouldn't cover the structure itself, but would potentially cover the expensive personal property items associated with the house such as the solar generator (Brady, personal communication, 2015). This same couple even knew a fellow tiny house owner who was forced to **insure her self-built tiny home as a work of art**. Finally, online tiny house communities have recently been full of ongoing talk of creating an insurance co-op just for people hoping to insure their tiny houses (Mitchell, 2013).

Financing Construction: Informal or Personal Loans

One tiny house resident was not able to get a loan from a bank to pay for the materials to build her house so she **borrowed money from a friend** and then used student loans to pay back that friend. Another tiny house resident noted that people are able to get **personal loans** from banks, but only if they have really good credit. This person was able to get a personal loan for $33,000 which covered the cost of constructing the house and purchasing all of the appliances they needed (Morrison, personal communication, 2015). For people who are buying or building a tiny house in order to downsize from a traditionally-sized tiny house that they owned, they may be able to use ongoing proceeds from selling their house to finance their new tiny house. Finally, some companies such as Tiny House Lending advertise that they offer personal loans targeted at covering the costs of a tiny house (Tiny House Lending, 2015).

Other Strategies

Finding a Place to Park: Park on Family Property; Create Website

One tiny house resident is able to **park her home in the backyard of her grandmother's house**. This helped her overcome some potential legal barriers because, as the City noted when she called to ask them about the legal details of parking her house, people in Eugene can legally camp on family property indefinitely (Anson, personal communication, 2015). She does not have to pay rent here which has allowed her to save some money. Another tiny house resident in Virginia has faced significant difficulty finding a place where she can park her home. In response, she created a **website dedicated to finding a place to park** her tiny home. She also attends tiny home community events to pass out cards with her contact information so that people can contact her if they hear of anyone with space to park her home (Stokes, personal communication, 2015).

Accessing Utilities: Various Solutions

Tiny house residents have found creative solutions to overcome the difficulty of accessing utilities. Some of these include:

- Using a hand crank washing machine and dryer;
- Using a composting toilet (i.e. Nature's Head);
- Connecting the plumbing in their tiny house to an RV grey water tank and then pumping it out to the city sewer system;
- Accessing water through a well on the property;
- Using alcohol burning oven and stove as designed for a boat;
- Using lights and appliances that require very little electricity such as LED lights;
- Diverting water from the shower down a pipe to a mulched area; and
- Having both an on- and off-grid power supply.

Tiny house residents can use solar panels like these (far left) instead of connecting to the grid. One tiny home resident in Virginia uses this hand-crank washing machine (left) to avoid needing to connect to utilities. Jody and her husband in Virginia use an alcohol-burning stove from a boat to cook the food in their tiny house (above).

Conclusion

Conversations with tiny house residents made it clear that tiny houses frequently exist in a grey area of legality: many people needed to find legal loopholes to accommodate their lifestyle. While many cities are taking steps to provide for this type of housing, local policy has yet to catch up to the desire for smaller dwelling units. The nation's affordable housing crisis coupled with growing demand for tiny houses indicates that local governments should act quickly to plan for smaller dwelling units. While local governments have room to improve, many tiny house residents overcame challenges by actively seeking a partnership with local government early in the process. This open communication decreased conflict that could have arisen over illegal structures or the unauthorized permanent occupancy of tiny houses. In addition to the success of early communication with local government, several other themes emerged.

Strategies Address Multiple Barriers
Many tiny house residents face multiple barriers and have come up with solutions that address several of these barriers simultaneously. For example, registering a tiny house as a travel trailer makes it easier to transport, find legal places to park and insure the structure. Working with the local government initially can make it easier to overcome land use and code barriers (or at least make it easier to meet required standards), find a legal place to park, and get a legal address. Finally, some jurisdictions are more accommodating to non-traditional living situations than others. Moving to areas that accommodate tiny houses in their local ordinances can help tiny house residents meet zoning and code requirements, overcome community opposition, and find places to park legally.

Unique Strategies for Unique Circumstances
As noted above, strategies are incredibly location-dependent. Tiny house residents in a rural setting may more easily overcome land use barriers or neighbor opposition. People in communities that have adapted their codes to allow tiny houses may have more success working with the local government or parking legally. Tiny house residents in sunny climates can rely on solar panels while those in rainy climates may use rain catchment systems. Finally, if an address can be attached to land rather than a structure, tiny home residents can more easily have a legal address.

Many strategies are also unique to particular situations. Having access to resources is often a key to actualizing dreams of living in a tiny house. For example, having friends or family with land can make it easier to find a place to park a home. Access to capital makes it possible to fund the purchase or construction of a tiny home without seeking loans. Knowing people to conduct repairs off the clock or share tools can also help prospective tiny house residents. Finally, the social context and policy framework of a particular area can greatly influence the feasibility of living in a tiny house.

Responsibility is Widespread
Widespread adoption of the tiny house movement will require buy-in and commitment from all levels. Many of the strategies featured in this section also rely on support from the community or cooperation from private interests like insurance companies. Each of these groups can take responsibility for some aspect of overcoming challenges to the tiny house movement. Table 2 (next page) features suggestions for which parties can take responsibility for each strategy. Potential responsible parties are organized into four groups: individual tiny house resident, the community, local government, or other.

Table 2: Party Responsible for Various Strategies

Technical Barriers	Strategy	Resident	Community	Government	Other
Tools and skills	Tool and skill-sharing model	↑	↑		
Transporting home	Register as travel trailer	↑			
Lack of legal address	Use friend or neighbor's address or P.O. box; Use address not attached to structure	↑ ↑	↑	 ↑	
Meeting building code	Engage with local government early	↑		↑	
Zoning and land use	Find cities that accommodate tiny houses; Seek ADU status	↑ ↑		↑ ↑	
Repairing unit	Unofficial skill-sharing	↑	↑		
Social Barriers					
Having a family	Multiple tiny homes in proximity	↑	↑		
Isolation	Usable outdoor space; Communal space	↑	 ↑		
Negative perceptions	Early neighborhood outreach; Change dialogue about tiny homes	↑	↑ ↑		
Financial Barriers					
Accessing insurance	Register as travel trailer; Tiny home insurance (Lloyds of London); Insure through rental or auto insurance; Insurance co-op	↑ ↑	 ↑		 ↑ ↑
Financing construction	Personal loan; Finance through friends/family/community	↑ ↑	 ↑		↑
Other Barriers					
Finding a place to park	Property of friend/family; Advertise need for space	 ↑	↑	↑	
Accessing utilities	Avoid reliance on external utilities; Connect plumbing to RV greywater tank; Connect to well or nearby property	↑ ↑ ↑	↑ ↑		

Chapter 5: Micro-Village Barriers and Strategies

Communities of tiny houses intending to provide transitional housing to previously unhoused residents can face many of the same challenges as individually standing tiny houses. These include local, state and national building code requirements, zoning ordinances, and accessing insurance and financing (Heben, 2014).

Due to the specific population they serve (often people experiencing homelessness) and the moderately high density (upwards of 30 units per acre), micro-villages also face unique challenges. In many situations, opposition from neighboring residents and businesses challenges groups wishing to develop a piece of property into a micro-village. Fears about the potential impact of such villages on neighborhood character, property values, crime rates and safety often permeate community discussion, encouraging the public to testify both in favor of and against such developments (Withey, personal communication, 2015; Greene, personal communication, 2015).

A number of online resources and guides to developing a tiny house community are available, notably from the Village Collaborative and Tent City Urbanism, both by Andrew Heben. These resources include a Road Map to creating a Tiny House Village from the Village Collaborative and a soon-to-be published micro-village toolkit from SquareOne Villages.

This next section takes a deeper look at the challenges and successes of each of the five micro-villages that I looked at closely. These include Opportunity Village Eugene, Dignity Village, Quixote Village, Occupy Madison Village and Second Wind Cottages. After reviewing the formation history of the following micro-villages, I interviewed representatives from each organization to learn about the barriers to formation and the solutions that helped them overcome the challenges. I also looked at materials published by the governing organizations and other media sources. In addition to these five well-known, sanctioned micro-villages, I also spoke with representatives from a failed micro-village in Washington D.C., an Iowa village currently in formation, and a proposed micro-village in Portland.

The following section includes a brief description of each micro-village and a table summarizing the challenges that these groups have faced and the strategies that have allowed them to be successful. Details of barriers and strategies are located in Appendix C.

Cities with operating micro-villages:
- Seattle, WA
- Olympia, WA
- Portland, OR
- Eugene, OR
- Austin, TX
- Madison, WI
- Ithaca, NY

Cities with proposed micro-villages:
- Greensboro, NC
- Huntsville, AL
- Ann Arbor, MI
- Owosso, MI
- Des Moines, IA
- Fairfield, IA
- Fort Collins, CO
- Missoula, MT
- Walla Walla, WA
- Chico, CA
- Nevada City, CA
- Santa Cruz, CA
- San Luis Obispo, CA

(The Village Collaborative, 2016)

Occupy Madison Village

Occupy Madison Village (or OM Village) is a micro-community that originated in 2011 during the local Occupy Movement. During this time, the Occupy Madison encampment was moved constantly from location to location, and the organizers faced difficulty finding a permanent place for what was a growing number of campers associated with the movement (Occupy Madison, 2013). Many of these people were unhoused, often drawn to the resources and solidarity offered by the community (Clemente, personal communication, 2015).

Initially, support from the city and other community members was weak and the city had numerous ordinances that criminalized activity associated with people experiencing homelessness. For example, in the City of Madison it is illegal to sleep outdoors on property unless you own or rent it (Mingoya, 2015). As advocates in the community continued looking for a site for the campers, a local resident offered a piece of land to the campers and after some time on their property, they were moved to a park. Finally, Occupy Madison Inc., the nonprofit started by the group of unhoused people and their housed advocates, purchased a piece of property in 2012. The city eventually adopted an ordinance that allowed the community to build tiny houses legally, categorizing the houses as portable shelter units (PSUs) in its code (Mingoya, 2015). Occupy Madison now hosts five tiny homes, each of which is 98 square feet. Residents qualify for tiny house occupancy by accumulating sweat equity (participating in the construction of tiny houses and OM Village maintenance; Emechebe, 2015). Table 3 (next page) summarizes the primary barriers that Occupy Madison Village faced and lists the main strategies that allowed them to overcome these barriers.

Occupy Madison Village sells handmade items and OM-branded items to raise funds to pay for the costs of operating the village. Items include "tiny" bird houses, crafts, t-shirts and planters. Pictures from: http://occupymadisoninc.com/

Table 3: Occupy Madison Barriers and Strategies

Category	Barriers	Strategies
Technical	Zoning: finding a site	⌂ Work with government to rezone site to Planned Development
		⌂ Develop formal nonprofit to purchase land
	Building code: minimum size requirement	⌂ Build on raised beds, classify as trailers
		⌂ Adapt code to include "Portable Shelter Units" (tiny houses)
Social	Internal challenges	⌂ Accommodate unique internal norms
	NIMBYism	⌂ Address opposition proactively to legitimize and eliminate concerns
		⌂ Empower community to voice concerns to city
		⌂ Build aesthetically-appealing structures and spaces
		⌂ Constant outreach and relationship building
	Lack of local government support	⌂ Build community support to put pressure on local government
		⌂ Develop formal nonprofit to work with city
Financial	Funding operation and construction	⌂ Diversify support
		⌂ Development formal nonprofit to receive grants and decrease taxes
		⌂ Grow operation slowly
		⌂ Acquire low interest mortgage and pool funds as a group

Tiny houses at Occupy Madison Village protect residents, who would otherwise be without housing, from the elements. Picture from: http://occupymadisoninc.com/

Second Wind Cottages

Second Wind Cottages is a micro-village for men experiencing homelessness in Newfield, NY (Second Wind Cottages, 2013). Currently featuring nine tiny houses, Second Wind Cottages aims to eventually have 18 or 19 homes. Community Faith Partners, a local faith-based organization, acts as the fiscal sponsor and coordinates village funding. The Second Wind Cottage team, a separate group, manages village operations. Residents pay a set percentage of their monthly income to live in the cottages and cover utilities. This amount is capped at $600 per month. Houses cost around $15,000 to build (all were built and designed with volunteer labor including Habitat for Humanity) and many of the materials were donated by local businesses (Furst, personal communication, 2015).

The cost of developing the site to accommodate residential uses (including sewer, electricity, soil control and pollution abatement) was around $5,000 per house (Furst, personal communication, 2015). The tiny houses are on land belonging to the owner of an auto repair shop who donated land on County land outside of the city limits to shelter for community members without homes (Robertson, 2013). Table 4 summarizes the main barriers that Second Wind Cottages faced and the strategies that helped them overcome these barriers.

Tiny homes in a row at Second Wind Cottages outside of Ithaca, NY. Picture from: http://photos.syracuse.com/post-standard/2014/12/tiny_homes_at_second_wind_cottages_6.html

Table 4: Second Wind Cottages Barriers and Strategies

Category	Barriers	Strategies
Technical	Meeting zoning requirements	⌂ Build local governmental allies ⌂ Work with local government
Social	NIMBYism	⌂ Address neighbor concerns individually ⌂ Outreach at town meetings
	Stigma of homelessness	⌂ Relationship building
	Lack of coordinated mission	⌂ Develop formal nonprofit
Financial	Funding construction	⌂ Diversify support ⌂ Build coalition with community partners

Dignity Village

Dignity Village evolved from an unsanctioned, transient tent city (homeless encampment) that started in 2000 on a vacant piece of land under a bridge near downtown Portland. This tent city, called Camp Dignity, emerged from a movement that was protesting the treatment of people experiencing homelessness (Wyatt, 2014). Residents of the informal camp were forced to move five times over the next year under the threat of police sweeps. Each of these moves was widely publicized, and residents would pack their possessions into shopping carts and push them "in parades" to their next location (Dignity Village, n.d. a). The camp was finally relocated to Sunderland Yard in 2001 (Dignity Village, n.d. a).

In 2004, the City of Portland sanctioned the community, designating it as a "self-governing transitional housing community" (Mingoya, 2015). Dignity Village is still located at Sunderland Yard, an industrial parcel of land owned by the City in Northeast Portland. The 43 homes house between 50 and 60 residents, most of whom stay for around two years. Residents pay $35 per month to help cover the operating costs (Mays, personal communication, 2015). Table 5 (next page) summarizes the main challenges that Dignity Village faced during implementation and lists the strategies that helped them overcome these barriers.

Dignity Village originated from an unsanctioned protest camp under the Fremont Bridge in Portland, OR (left). The community now features tiny houses arranged around central communal space. A vibrant mural (above) contributes to community character. Picture (left) from: https://dignityvillage.org/history/

Table 5: Dignity Village Barriers and Strategies

Category	Barriers	Strategies
Technical	Inability to rent land Finding a long-term site Zoning	⬆ Form nonprofit organization ⬆ Work with local government ⬆ Designate land a campground per Oregon law allowing campgrounds for people experiencing homelessness (ORS 446.265)
Social	Internal conflict Isolated industrial location Stigma of homelessness	⬆ Form nonprofit organization ⬆ On-site support helps residents connect to off-site services ⬆ Build community support through media
Financial	Insurance is required Funding operations	⬆ Strong relationship with City helped lower insurance premiums ⬆ Develop community support through media ⬆ Seek private donations ⬆ Innovative funding mechanism: onsite microbusiness selling donated firewood
Other	Industrial location	⬆ *Ongoing challenge*

Dignity Dogs (left), a food cart selling hot dogs, operated for years in Downtown Portland. Proceeds went to supporting the operation of Dignity Village. "Fire Starting Buddies" (right) are part of Dignity Village's most successful micro-enterprise which recycles scrap metal and firewood, much of this from donated materials. Products can be purchased from the Village site every day of the week.
Pictures from: https://dignityvillage.org/about-2/microbusiness/

Quixote Village

Quixote Village evolved from the 2007 efforts of a group of 30 people who founded a tent city community in a parking lot in Olympia as part of a protest movement. The group was protesting city ordinances that unfairly targeted people experiencing homelessness. After police threated to clear the camp, a local church offered to let the group stay on their land. This led the City of Olympia to pass an ordinance recognizing the right of faith-based organizations to fulfill their mission by hosting such camps.

This camp moved every three months, relocating more than 20 times over the next seven years. At this point, Thurston County offered the group a piece of land and a local architect developed the site plans by hosting design workshops with potential residents.

Quixote Village was completed in 2013 and is now operated by Panza, a 501c3 nonprofit organization formed by the supporting churches. The name Panza comes from "Sancho Panza", who is Don Quixote's servant in the novel *The Ingenious Gentleman Don Quixote of La Mancha*, by Miguel de Cervantes.

Quixote Village features 30 tiny houses, each about 144 square feet in size and including a half bath, closet and front porch. The village also has a community building with a kitchen, bathing facilities, conference room, laundry room, offices, cold and dry storage, multi-purpose common rooms and a vegetable garden (Quixote Village, n,d). The estimated cost per house was around $89,000 and the Village costs around $220,000 to operate annually (around $7,333 per person). Residents pay 30% of their income in rent which helps cover operation and maintenance costs (Community Frameworks, 2015; Severn, personal communication, 2016). Table 6 summarizes the primary barriers that Quixote Village faced during implementation and outlines the strategies that helped them successfully overcome these barriers.

The tiny houses at Quixote Village are lined up in rows and grouped around a pond. Residents enjoy the site's natural beauty and take pride in tending to the landscaping.

Table 6: Quixote Village Barriers and Strategies

Category	Barriers	Strategies
Technical	Finding a legal and affordable site	⬆ Partner with local and County government: they now rent land from the county for $1 per year on a 41-year lease
	Zoning	⬆ City grants Quixote Village a Conditional Use Permit
	Building code	⬆ Update definition of SRO in code to describe tiny homes
Social	NIMBYism	⬆ Persistence/commitment to developing relationships with neighbors
		⬆ Build community support and develop partnerships
		⬆ Strict community agreement
Financial	Funding construction and operation	⬆ Diversify funding
		⬆ Serve specific population that allows them to qualify for federal funds
		⬆ Build coalition to lobby state for funding
		⬆ Develop formal nonprofit to fundraise
Other	Isolated and industrial location	⬆ Partner with local transit authority

Residents at Quixote Village have a shared community building (left) with showers, personal lockers and a kitchen. Residents were involved with the design process and were willing to sacrifice interior square footage in order to have porches. Pictures from: quixotevillage.com (left) and www.thesoundsnews.com (right).

Opportunity Village Eugene

Opportunity Village Eugene (OVE) formed after Eugene's 2011 Occupy movement morphed into a movement protesting the treatment of people experiencing homelessness. Protestors, many of whom were unhoused, formed an illegal camp which was relocated several times and shut down later that year, inciting community controversy. Spearheaded by local advocates and a city-supported task force, the concept of building a micro-village emerged. After a nearly a year of planning and advocacy work, the Eugene City Council passed a motion authorizing the city to identify a site for the micro-village (Heben, 2014). In 2014, OVE was finally permitted as a homeless shelter.

OVE features 30 tiny homes (ranging in size from 60 to 80 square feet), shared shower facilities, and other communal areas including a kitchen and gardens. Initial costs were about $220,000 and were funded with around $98,000 in private cash donations, plus an estimated $114,000 of in-kind materials and labor (SquareOne Villages, n.d. a). The village costs about $1,200 per month to operate, one-third of which is covered through rent paid by residents. OVE estimates the its operating costs average $3/night/person (Parker et. al., 2015). OVE operates through a contract with the city which stipulates details of its operation. During its first two years of operation, OVE provided housing for over 100 people (City of Eugene Community Development, 2014). SquareOne Villages, the governing organization, is currently creating another micro-village, Emerald Village Eugene (EVE), that will provide affordable housing to unhoused and traditionally housed people (SquareOne Villages, n.d. b). Table 7 summarizes the primary barriers that OVE faced during implementation and outlines the strategies that helped them successfully overcome these barriers.

Table 7: Opportunity Village Barriers and Strategies

Category	Barriers	Strategies
Technical	Land use and zoning	⬆ Develop relationship with local government ⬆ Adopt accommodating ordinances
Social	Initial lack of credibility NIMBYism	⬆ Establish formal nonprofit ⬆ Self-governance to promote a sense of ownership ⬆ Early neighborhood involvement ⬆ Visually appealing structures ⬆ On-site security and community agreement
Financial	Funding construction	⬆ Build with volunteer support ⬆ Establish a formal nonprofit
Other	Industrial location Transitioning to permanent housing	⬆ Provide bus passes to residents ⬆ *Ongoing challenges*

Conclusion

Barriers facing micro-villages range from lacking internal coordination to neighbors who opposed the formation of the community. All five villages initially struggled from a lack of funding and experienced NIMBYism related to the stigma of homelessness. Many villages also experienced difficulty with finding a site that was financially feasible and appropriately zoned. Three of the micro-villages ended up being placed on industrial land outside of the city. This poses unique challenges to residents who must then live in an environment not ideal for residential use (loud noise, smells, traffic and polluted air). It also makes it more difficult for residents to access the services and resources that can help them eventually transition to permanent housing (if they choose to do so).

Much of the difficulty facing organizations that wish to start a micro-village stems from a legal framework that doesn't treat tiny houses as a legal or legitimate form of housing. If cities have a hard time deciding how to treat one tiny house, figuring out what to do with a group of 30 of them will likely be even more complicated. At this point, the primary barriers to tiny homes are under the control of local and state governments, which should take action to accommodate both tiny homes and micro-villages. Because policies can be slow to adapt to new situations, organizations and communities must take on much of the responsibility in the meantime. Barriers and associated strategies varied community to community but my research uncovered some general keys to success. This section outlines some strategies for organizations wishing to start micro-villages while suggestions for all levels of government are located in Chapter 6.

Conduct Early Community Outreach: When groups faced opposition from neighboring businesses or residents they were able to conduct significant outreach, develop relationships with neighbors, and eventually gain their support. Some tactics included door-to-door outreach, hosting community dinners, and transparently addressing concerns on a website.

Establish a Formal Nonprofit: When groups of unsheltered people living in tent cities wanted to establish a city-sanctioned village, they often created a governing organization to ensure internal coordination and compliance with local requirements. Establishing a formal nonprofit organization also makes it easier to buy or rent land, raise funds, and work with governmental agencies. Finally, having the backing of a formal nonprofit increases political credibility and, as such, the potential for a micro-village to be implemented successfully.

Diversify Support: In response to an initial lack of funding, micro-village representatives were able to round up the support of community members to benefit from donations of money, volunteer labor, or materials. This helped organizations cover the costs of construction and permitting. Another key to the strong community support that Quixote Village and Second Wind Cottages finally received was support and commitment from the local faith-based community. Finally, one upcoming micro-village in Eugene (Emerald Village Eugene) was able to lower initial costs by asking local architects to donate their designs (Pruitt, personal communication, 2015).

Work with Local Government: Partnerships and collaboration between local governments, community members, and advocates of micro-villages have been integral to the successful formation of micro-villages across the country. Notably, in Olympia, members of Panza (Quixote Village's governing organization) helped the city update the definition of SRO in its code to match the currently existing houses, which allowed the units to qualify for federal HOME and Section 8 funding. Developing a cooperative relationship with the local government also helped these groups overcome barriers posed by land use or code restrictions (potentially through changes to a local zoning ordinance or updating a code to accommodate tiny homes).

Generate Revenue in Innovative Ways: Dignity Village in Portland has been raising money for years to fund operations through several micro-enterprises. A food cart selling hot dogs in downtown Portland as well as an on-site operation chopping, bundling and selling firewood have provided funds for the village. Occupy Madison Village sells handmade and OM-branded items on-site and through their online store. Items range from clothing to tiny bird houses. One key to the success of these businesses has been the donated raw materials that help villagers turn a profit with little initial monetary investment. Additionally, the initial media attention given to the causes behind these communities allowed their names and stories to become well-known. Wearing an item advertising for either of these communities is a political statement that many will pay to support.

***Importance of Location*:** The political and community contexts of these micro-villages were instrumental in their success. For example, the particular size and population of the City of Olympia made it feasible for the County to donate the land to Quixote Village. If they were located in an area with more expensive land it would have been less likely that the County would be willing to donate such a large piece of land. Several of the villages, including Dignity Village and Opportunity Village Eugene, were established in communities that have a reputation for progressive land use policies. Additionally, representatives from both Occupy Madison and Second Wind Cottages noted that being located in a town with progressive, "college-town" politics substantially increased the amount of community support for their micro-villages.

Carefully Craft Governing Documents and Community Agreements: Panza spent considerable effort crafting their governing documents and lease agreement for the residents, and continues to revise it as needed. The lease agreement includes everything from bed bug and pet policies to chore requirement policies. This helps mitigate conflict and allows for flexibility within the community.

More Resources:

- "A Legal Path for Tiny House Communities" by Tent City Urbanism: http://www.tentcityurbanism.com/2014/10/a-legal-path-for-tiny-house-communities.html;
- *Tent City Urbanism* by Andrew Heben;
- HUD case study on cottage ordinances from Kirkland, WA: https://www.huduser.gov/portal/casestudies/study_102011_2.html;
- "Tiny Houses for the Homeless" video from PBS: http://www.pbs.org/wnet/religionandethics/2014/10/10/october-10-2014-tiny-houses/24263/;
- Dan Bryant Ted Talk about Opportunity Village: https://www.youtube.com/watch?v=HNNkHjMUCmw;
- Upcoming Tiny House Village Toolbox from SquareOne Villages: http://www.squareonevillages.org/#!toolbox/izxob;
- Mingoya, Catherine. (2015). *"Building Together. Tiny House Villages for the Homeless: A Comparative Case Study."* Unpublished master's thesis, Massachusetts Institute of Technology. Available at: https://dusp.mit.edu/sites/dusp.mit.edu/files/attachments/news/mingoya_2015.pdf; and
- Upcoming publication from University of Michigan PhD Student Jeffrey Albanese on tiny house communities.

Chapter 6: Conclusion

Micro-housing is not the silver bullet that will solve the affordable housing or homelessness crises but this non-conventional housing type has an important role to play. It fits along the spectrum of solutions and can offer opportunities for mobility, affordable homeownership, and a sustainable lifestyle. Ultimately, because much of the current affordable housing crisis is due to an undersupply of affordable housing, changing political and social frameworks to accommodate unconventional housing types will contribute to the solution by increasing housing stock and diversity.

Micro-villages and individual tiny houses play different roles in the type of housing that they provide and consequently face different barriers. Individual tiny house residents face barriers related to building code and accessing loans and insurance while micro-villages are challenged by opposition and the stigma of homelessness. The strategies that help advocates overcome these challenges are unique and location-dependent; the political context of a community and the local government's willingness to cooperate are often essential to success. Other keys to success for both individual tiny houses and micro-villages included collaboration and coalition building, diversified sources of support, and creative strategies for self-sufficiency.

Substantial change to our social and political frameworks must come from both the governmental and community levels. Many of the strategies featured in the previous chapters focused on how individuals or community organizations can overcome barriers. The next two sections highlight how communities can encourage micro-housing at a grassroots level, and how governments at all levels can create a legal framework that can accommodate micro-housing.

Confronting Stigmas

One way that communities can encourage the spread of tiny homes and micro-villages is to develop an ethic that supports, rather than discourages, nonconventional living situations. According to Andrew Heben, co-founder of Opportunity Village Eugene, the biggest challenge to the spread of micro-villages is developing the political and social will to make projects happen. Building codes and zoning ordinances can be relatively flexible and, with perseverance and governmental cooperation, can be adapted. The most important step is ensuring that city officials are willing to help a project happen (personal communication, 2015). In addition to zoning challenges, many of the social and political challenges that micro-villages faced stemmed from community opposition and NIMBYism. This was often the result of assumptions that community members made about how living near a transitional housing community might impact them: their safety, the value of their property, or the visual appearance of their neighborhood.

It is likely that the stigma associated with homelessness is partially the result of society's paternalistic approach to those living in poverty. Quite a few systems that provide assistance (such as welfare or subsidized housing) also reduce autonomy and independence. This approach can lead to a mistrust for and lack of faith in poor people to function independently and meet their own needs. Rethinking how we treat and talk about people who experience homelessness and/or poverty is an important step toward confronting this stigma. Taking the time to educate ourselves about the complexity and true causes of poverty and homelessness (i.e. systemic bias against low-income individuals, economic stratification, an inadequate mental and physical healthcare system, and educational and employment policies that keep people in a cycle of poverty) can also help us reframe the way we think about people who need affordable housing.

As a final note, in the wake of the affordable housing crisis, we as a society, need to rethink how we define acceptable, legitimate housing and adjust our expectations. The average house size has increased substantially since the 1950s to the point where many people are likely paying for more space than they need. As a response to a nationwide lack of affordable housing, communities will likely see an increase in the number of nonconventional housing situations before we see a decrease. Both communities and governments should recognize the need for diverse housing types and embrace, rather than oppose, new housing options.

Policy Implications for Tiny Houses

While individuals and communities have roles to play in terms of questioning harmful narratives about homelessness and affordable housing, it is up to governments at all levels to accommodate new types of housing. Although governments cannot make people change negative perceptions, they can make it easier for people to live in smaller units. According to conversations with tiny house residents, the main barriers to tiny houses are local code and zoning requirements. Difficulty meeting these requirements often forces tiny house residents to exist in a grey area of legality: many cannot legally occupy their home but the local government may turn a blind eye due to uncertainty. What's more, a political framework that does not legitimize tiny homes is behind many of the other challenges that they faced. These include accessing insurance, getting financing, finding a place to park, and repairing one's tiny house. Solutions to this informality and illegality must be multi-faceted and come from all levels of government.

Local Solutions

Many of the land use and code barriers underlying barriers to individual tiny houses are established locally. While the federal and state governments have roles to play in terms of allowing cities to accommodate smaller units, local governments can take responsibility for creating a political framework that accommodates non-conventional housing.

Building Codes

One primary barrier to tiny homes is the minimum dwelling unit size requirement included in local code. Some cities have higher minimum requirements than others, but technically this requirement can be as low as 70 square feet (International Code Council, 2015). Before 2015, the minimum habitable room area allowed by the International Code Council (ICC) was 120 square feet but when they released the updated floor area requirement, the ICC acknowledged that the original requirement of 120 square feet was not based on any "scientific analysis" or safety concerns, but was just a generally accepted arbitrary number. The ICC cites external advocacy for smaller dwelling units as the motivation for this change (International Code Council, 2015). Local governments should follow this example by questioning the minimum size requirements that may have been based on this or other arbitrary number, and adjusting them to accommodate smaller dwelling units.

In cities that have eliminated or significantly decreased the minimum size requirement, other code requirements can be a barrier. In the city of Eugene, Oregon, tiny homes recently came up at a City Council meeting. City Representatives acknowledged that while minimum size requirement is not a barrier in Eugene, other design characteristics unique to a tiny house do meet code challenges (Heben, 2015 b). Some of these requirements include the use of a ladder to access a loft area used for sleeping and the required size for a bathroom. These requirements mean that people who might need to work around these code specifications need to put their tiny home on wheels. This

exempts them from the building code requirements but means that their tiny home is not a legal primary dwelling unit and will likely be treated as an RV by local ordinances. Due to HUD's recent reiteration of the illegality of using units on wheels as primary dwelling units (see section on Federal responses), cities should encourage prospective tiny house residents to build their house on a foundation rather than seek RV certification.

Local Case Study: Spur, Texas
While increasing the flexibility of their building codes, cities will be challenged to find the line between ensuring safety and enforcing arbitrary, outdated standards. Spur, TX, which recently began marketing itself as the first "tiny house friendly" town, is an example of how to safely accommodate tiny homes in city code. Spur permits tiny houses (which it defines as dwelling units smaller than 900 square feet – quite large for a tiny house) on foundations outright in most zones. The ordinance (Ordinance 677) posted on the city's website lists a number of requirements for legal tiny houses including connection to a sewer system and access to a driveway (City of Spur, 2016). Since 2014 when the ordinance was adopted, 76 new tiny houses have popped up in Spur (City of Spur, 2016).

This formalized treatment of tiny houses that eliminated many barriers might also result in negative outcomes. While it may be easier to insure a house that is legally a home, the formalized development and permitting processes likely add cost and complications. The cost of building permits and local impact fees or systems development charges may be added to the cost of what was initially intended to be affordable housing. Legalizing tiny homes may also add the cost of land onto the cost of living: many tiny house residents live informally on the land of others, but if it were legal to buy a very small parcel of land for a tiny home, more people need to do so. Table 8 lists some benefits and consequences potentially resulting from the outright legalization of tiny homes.

Table 8: Pros and Cons of Legalizing Tiny Homes

Benefits	Consequences
Increased access to insurance and financing	⬆ Increased building costs (permitting, paid contractor, inspectors)
Inclusion of more people in movement	⬆ Increased development costs (SDCs, impact fees)
Decreased NIMBYism	⬆ Cost of land potentially added to cost of housing
Easier to develop micro-villages	⬆ Loss of self-sufficient, independent spirit of Tiny House Movement
Decrease in stigma association with tiny homes	⬆ Movement less attractive to regulation-adverse populations
Easier to find licensed repair people	⬆ Decreased ability to self-design and self-build
No need to find a place to park home; stability	⬆ Decreased mobility; tiny houses on wheels not likely to be legalized

While legalization and the potential mainstreaming of tiny houses may encourage people who were initially hesitant to break laws, this change may actually dissuade those who participated in the lifestyle *because* it was a rejection of mainstream housing norms. Finally, while the ability to easily find a place to keep a home long-term would add stability to a sometimes uncertain lifestyle, it would also result in a lack of mobility: tiny houses on wheels are unlikely to be legalized as permanent dwelling units.

Zoning: Local zoning ordinances also pose challenges to tiny homes and micro-villages. Again, these regulations vary substantially from city to city, so what may be an effective method of accommodating tiny homes in one place may be irrelevant in another. One way that cities can decrease barriers to tiny homes through their zoning is to partially or completely exempt tiny homes from requirements regarding lot size or setbacks. Additionally, many municipalities grant design requirement exemptions or flexibility to developers building affordable housing units or accessory dwelling units (ADUs). Recognizing that tiny homes and micro-villages are often a needed form of affordable or transitional housing, local governments could use a similar approach.

In addition to Spur, Texas, there are examples of cities across the country that have accommodated tiny homes and micro-villages:
- The city of Walsenburg, CO, amended its zoning ordinance to allow for homes between 180-600 square feet (Mestas, 2014).
- Breckenridge, TX, updated its zoning ordinance to define a tiny house as a unit less than 500 square feet and defines tiny houses on wheels as recreational vehicles. One tiny house is allowed per lot and they have to be on a foundation (Pilkington, 2016).
- Fresno, CA, updated their development code to allow for tiny house on wheels as a legal use in single-family residential areas. The code also requires that the houses be licensed with the California DMV as a recreational vehicle (City of Fresno, 2015).
- Sonoma County, CA, legalized the use of tiny houses on wheels as primary dwelling spaces for caregivers (Sonoma County, n.d.).

Unfortunately, many jurisdictions are taking the approach of allowing people to live in tiny houses on wheels under the caveat that they are not the primary dwelling unit on a piece of land. Legalizing tiny homes on wheels as "recreational vehicles" perpetuates the treatment of tiny homes as non-legitimate living accommodations because homes are wheels are primarily not legal dwelling units. Instead of accommodating tiny homes on wheels, cities should simply allow, outright, small homes on foundations.

Funding: A final step that cities and counties can take to support micro-housing relates to the prioritization of their funding. Recognizing both the challenge that finding funding can pose to organizations and the benefits that micro-villages can provide, local governments should use federal funding to support micro-village projects. Quixote Village is an excellent example of a project that successfully took advantage of Community Development Block Grant (CDBG) and project-based Section 8 funding. Local governments receiving CDBG and HOME funding have the option to dedicate these funds to viable micro-village projects that will increase the supply of supportive, transitional housing for people experiencing housing instability or homelessness.

State Solutions
While many code and land use barriers are established locally, states also play role in supporting a policy framework that promotes affordability and housing choice. The Oregon Residential Specialty code establishes a minimum area for each dwelling unit as 120 square feet (R304.1) rather than the new 70 square foot standard that International Residential Code implemented in 2015 (Oregon Residential Specialty Code, 2014). However, in April of 2016 the State of Oregon released a notice that designers are now allowed to use the updated 2015 IRC to guide their designs at their own discretion (State of Oregon Building Codes Division, 2016). This is an important step toward allowing more flexibility for designers and developers. States that have not taken the same steps should do so in order to accommodate the development of dwelling units less than 120 square feet in floor area.

In addition to allowing developers to build to the most updated IRC standards, states can encourage smaller homes in other ways. The Washington State legislature recently proposed legislation that would eliminate minimum floor space requirements for single-family homes in cities that have populations of less than 125,000 people (Washington State Legislature, 2016). This is a step toward allowing some cities flexibility, but legislation like this could expand to include cities with populations of over 125,000 people. Other states could follow suit and implement similar legislation.

States can also build more flexibility into their residential codes. The Oregon Residential Specialty Code defines a dwelling unit as a "single unit providing complete independent living facilities for one of more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation" (Oregon Residential Specialty Code, 2014). This complicates the permitting of tiny homes within micro-villages with shared kitchen and sanitation facilities (like those at Opportunity Village), because these homes may not automatically be considered complete dwelling units. Because these are state requirements, even if cities would prefer more flexible requirements, developers still have to include space for these uses in order for a home to be considered a complete dwelling unit. The State of Oregon, and other states, could alter this definition to allow sleeping spaces with access to external shared amenities to be considered complete dwelling units. This flexibility can decrease the cost of providing dwelling units and aid in the development of SRO living situations.

Federal Solutions
The federal government can support the spread of tiny homes and micro-villages in several ways. The U.S. Department of Housing and Urban Development (HUD) provides a substantial amount of funding for local housing development and also sets the tone for a national policy framework. HUD recently commissioned a feasibility study of the use of tiny home villages to provide affordable housing in Lane County, Oregon (Aberbanal et. al., 2016). Funding this study was a step toward the widespread recognition of micro-villages and tiny homes as a legitimate form of housing. Furthermore, as a response to a nationally recognized lack of affordable housing, HUD could encourage local governments to accommodate new types of housing by:

1. Decreasing their minimum dwelling unit size;
2. Adding flexibility to their building codes;
3. Treating tiny homes on foundations as a legal use and permit them outright;
4. Partnering with local organizations working to start micro-villages; and
5. Accommodating micro-villages as multi-family developments in their zoning ordinances.

HUD also contributed to the national discussion about tiny homes in its recent rule differentiating between recreational vehicles and mobile homes. This rule clarifies that when tiny homes on wheels are treated as RVs, they are specifically not intended for permanent occupancy (U.S. Department of Housing and Urban Development, 2016). This was good news for the recreational vehicle industry: the rule exempts recreational vehicles from having to meet the same standards as manufactured homes (Recreational Vehicle Industry Association, 2016). However, this rule was a blow to some tiny house residents because it reiterates that RVs (including RV-certified tiny homes) are not legal for permanent occupancy. The rule also requires that structures claiming exemption from the standards "prominently display a notice stating that the unit is designed only for recreational use and not as a primary residence or permanent dwelling" (U.S. Department of Housing and Urban Development, 2016).

For the most part this rule simply reinforced the illegality of using a structure on wheels for a primary dwelling unit, which is already illegal in most cities anyway. This rule was largely inconsequential for the majority of tiny house residents but it did cause some outcry within the tiny house community. It also illustrated the powerful role that HUD plays in influencing national dialogue and setting policy standards. A potentially unintended consequence of this rule was to further delegitimize impermanent lifestyles and perpetuate an intolerance for nonconventional housing situations (Heben, 2016).

The federal government can also play a role in encouraging insurance companies to develop policies specific to tiny homes. Once tiny homes are legalized at the local and state levels, this may become much more feasible. Finally, HUD could make it easier for local governments and organizations to use federal funding (including national housing trust fund dollars and Section 8 vouchers) for micro-villages by making the requirements more flexible.

Areas for Future research

The strategies outlined in this report provide an overview of solutions to the primary challenges that tiny house residents and micro-village advocates face. These findings are representative of the experiences of people who I interviewed and are not a complete representation of all of the strategies available. Because this research was limited by time, I was unable to delve more deeply into some topics. For example, micro-villages and individual tiny houses face such different barriers that I could have researched each separately. Additionally, many challenges are dependent on the social and political context of each community. It would have been interesting to compare barriers and strategies by geographic region in order to identify trends related to political or social context. Finally, as is always the case, answering my initial questions about micro-villages and the tiny house movement led to new questions including:

- Is the tiny house movement gentrifying?
- What makes a micro-village operate successfully or not?
- What are more implications regarding RVIA certification?
- Is it more beneficial to permit tiny houses as primary dwelling units or leave them as secondary dwelling units?
- What geographic regions are more accommodating to tiny homes?

Appendix A: Methodology

My research methodology included mixed-methods and followed a case study approach. I conducted a substantial portion of my research online, accessing blogs, news articles, press releases, zoning ordinances and academic or technical reports. This allowed me to have a comprehensive understanding of the formation history of the micro-villages I was studying. Several of the tiny house residents that I interviewed keep their own blogs where they record their experiences. I read quite a few of these prior to interviews as well.

Interviews

I conducted 21 interviews between July, 2015 and April, 2016, both in person and over the phone, and conducted six site visits. Interviews lasted anywhere from 15 minutes to an hour and a half and followed a conversational format. This allowed me to ask follow-up questions, let the conversation flow naturally and ask questions targeted at a specific situation. At the beginning of each interview I explained the background and goals of my project. I invited participants to ask any questions that they had and let them know how I would use the information from their answers. Participants gave verbal consent to be quoted and featured in my project with the understanding that I would represent their responses honestly and that they would receive a copy of the report when finished.

Interviewees:

- Jody Brady – Tiny house resident, Virginia
- Amanda Stokes – Tiny house resident, Virginia
- April Anson – Tiny house resident, PhD student, University of Oregon, Eugene, OR
- Jay Austin – Tiny house resident, Boneyard Studios representative, Department of Housing and Urban Development, Washington, D.C.
- Lee Pera – Tiny house resident, Boneyard Studios representative, Washington, D.C.
- Gabriella Morrison – Tiny house resident, Medford, OR
- Andrew Odom – Tiny house resident, North Carolina
- Grace O'Brian – Tiny house resident, Austin TX
- Dustin Alfano – Tiny house resident Baltimore, MD
- Maighen – Tiny house resident, Colorado
- Jeffery Albanese – Tiny house advocate, Master's student at the University of Michigan
- Sadie DiNatale – SquareOne Villages, Eugene, OR
- Lyndsey Pruitt – Architect with the Urban Collaborative, Eugene, OR
- Jill Severn – Quixote Village, Olympia, WA
- Katie Mays – Dignity Village, Portland, OR
- Jeff Furst – Second Wind Cottages, Newfield, NY
- Michael Withey – Micro-Community Concepts, Portland, OR
- Luca Clemente – Occupy Madison, Madison, WI
- Tom Greene – Tiny house resident, Sutter Farms Eco Village, Fairfield, IA
- Robyn Hayes – Build Tiny, Virginia
- Andrew Heben – SquareOne Villages, Eugene, OR

Interview Questions

The interview questions that I used generally followed the same format but, as indicated above, varied based on the specific circumstances of the house or micro-village. Other than these specific questions, I let the conversation flow naturally, asking follow-up questions that would allow me to develop the most comprehensive understanding of the interviewees' experiences.

1. What was the most significant challenge that you/your organization has had to overcome?
   a. Financial?
   b. Technical?
   c. Social/Political?
2. What strategies were the most instrumental in helping you overcome these challenges?

While interviewing representatives from micro-villages I also asked questions specific to the organization or circumstance including:

1. Relationship with local government:
   a. How would you describe the relationship between your organization and the local government?
   b. How has the relationship that you/your organization have with the local government helped or hindered the process of establishing a micro-village?
2. Did your organization or the micro-village face opposition or NIMBYism?
   a. If your organization was able to overcome NIMBYism, how were you able to do so?
3. Zoning and code:
   a. How is the land zoned?

   b. What is the agreement between the land owner and your organization (if your organization does not own the land)?
   c. Were any zoning changes made to accommodate your micro-village?
   d. If code was a barrier, how were you able to work through this?
4. What was your biggest challenge related to finding a site?
5. How was the political or social context of your community related to challenges or successes that you had?

While interviewing individual tiny house residents I asked questions that were more related to their houses including:

1. Is your tiny house on wheels? Why or why not?
2. Is your tiny house connected to utilities? How does this work?
3. Is your tiny house RVIA certified?
4. What was the biggest challenge that you faced while buying, building or living in a tiny house?
   a. Social challenges?
   b. Technical or legal challenges?
   c. Financial challenges?
   d. Other?
5. If you were able to overcome these barriers, how did you do so?

Appendix B: Tiny House Case Studies

"Romeo"

Owned by: Amanda

Rural Virginia

158 Sq. Ft.

GENERAL DETAILS
Electricity: Solar capable, house wired for AC and DC
Water: Heated with propane
Stove: Propane
Sewer/Toilet: Composting toilet
Wheels: Yes

UNIQUE CHARACTERISTICS
Hand crank washing machine and dryer

BIGGEST CHALLENGES
- Finding a place to park her house;
- Accessing tools and learning to build her house;
- Moving/towing her house;
- Funding the construction of her house.

STRATEGIES
- Using a website and handing out cards to find a place to park;
- Worked with Build Tiny, an organization that provides training, space and tools for people to build their own tiny houses;
- Using a hand-crank washing machine and composting toilet to avoid connecting to external utilities.

"The Tiny"

Owned by: April

Eugene, Oregon

128 Sq. Ft.

GENERAL
Electricity: House wired for AC and DC
Heat: Space heater, wall heaters, Envi
Sewer/Toilet: RV grey water tank
Two beds; one lofted, one couch-bed for guest space
Cost: $15,00

UNIQUE CHARACTERISTICS
Her house is made from reclaimed materials except interior lining and metal studs fastening to trailer. It also has a cat door.

BIGGEST CHALLENGES
- Living in a small space and so far from downtown made it challenging for her to connect with the larger community;
- Difficulty finding people to repair her home;
- Financing the construction of the house;
- Insuring home.

STRATEGIES
- She has usable outside space with a fire pit and deck to share with visitors; couch/sitting space that turns into a second bed for a "guest bedroom";
- She found a trustworthy repair person to do work off the clock
- Secured an informal loan from community member; used other types of loan funding.

"The Bear Den"

Owned by: Jody

Round Hill, VA

288 Sq. Ft.

GENERAL
Electricity: Solar panels
Stove: Alcohol burning boat-stove
Sewer/Toilet: Composting toilet
Ground floor bed
Shower water runs out into a created wetland area

BIGGEST CHALLENGES
- Moving and towing: their house requires a wide-load DOT permit for every state through which they travel;
- Zoning: They can't legally live the space and it doesn't count as their primary dwelling;
- Securing insurance.

STRATEGIES
- Use composting toilet, alcohol-burning stove, solar panels, and energy efficient appliances and design to avoid relying to external utilities;
- Use the address of land where they park;
- Ground-floor bed is accessible to all ages.

UNIQUE CHARACTERISTICS
Their house is paired with a nearby ADU that provides them more space for entertaining friends.
Wooden boards can cover the sink to extend counter space.

Appendix C: Detailed Micro-Village Barriers and Strategies

Occupy Madison

Main Barriers

- **Finding a site:** Occupy Madison struggled for years to find a legal place to set up an encampment for their homeless members. City law said it was illegal to sleep outdoors anywhere in the city (camping was illegal). Additionally, because the group of people was informally organized and was not an established nonprofit, they had difficulty working with the city to change code and had difficulty purchasing a piece of land to occupy. Finally, due to unique needs of the population they hoped to serve, OM had to be picky about where they could locate. The people in their organization didn't have cars and needed to be able to access services. If stuck out on the edge of town, they would not be able to access the resources and amenities they needed. Additionally, organizers recognized that not being allowed to live in a residential area could potentially have dehumanizing and isolating impacts (Mingoya, 2015; Clemente, personal communication, 2015; Occupy Madison, 2013).
- **Building the homes:** Building the tiny homes themselves was by far the most affordable option but, because their group consisted of people from all different backgrounds, they initially lacked the technical knowledge and capacity to construct the homes. They needed to rely on the labor and knowledge of volunteers and people without training to figure out how to build the houses in a manner that was safe, structurally sound and aesthetically pleasing (Clemente, personal communication, 2015).
- **Internal challenges:** The unique combination of individuals in the Occupy Madison camp made internal community dynamics a constant challenge. Usually organizations are comprised of people who share backgrounds, education levels, methods of communication, and a cultural context. At OM, people come from different histories, generations, class statuses, parts of country, and financial situations, and have very different methods of dealing with conflict, relationships to authority, and mental health needs. This variation can complicate relationships when any group of people want to live together, particularly because these differences can lead to different perceptions of what communication should look like and how people should behave. These different expectations and needs required the community to learn how to create an environment that was inclusive and welcoming to differences, but that was also able to function effectively.
- **NIMBYism:** OM eventually located near a middle-class neighborhood. Residents of this neighborhood initially strongly opposed the development of the village. Neighborhood residents even circulated and gathered signatures on a petition saying they didn't want the village in their neighborhood. According to Clemente, neighbors came up with reasons to oppose the development, but much of the opposition was based on misperceptions of the residents and stigma associated with homelessness (personal communication, 2015).
- **Tiny houses were not legal residential structures:** According to the City of Madison's building code, inhabitable units cannot be smaller than 150 square feet (Strange, 2014). Meeting this size requirement would increase the potential cost of the houses but any structures that did not meet this requirement were in violation of the local code.
- **Initial lack of support**: Initially Occupy Madison lacked support from both the city and the neighboring community. In many situations, becoming legally sanctioned is an important factor in the success of micro-villages but without support from the local government this would be nearly impossible.

Main Strategies

- **Gain support of City:** After increased media attention led to growing support from the local community, social pressure finally led the City of Madison to realize they needed to work with Occupy Madison. A partnership allowed them to work together to develop create land use accommodations (Clemente, personal communication, 2015). The community is still careful to keep their distance from working too closely with the local government, however, as they are wary of the restrictions that public funding might impose on OM (Mingoya, 2015).
- **Creative land use accommodations:** The city rezoned the land from Neighborhood Mixed Use to a Planned Development which allowed them to regulate individual houses and the entire site in a unique way (Strange, 2014).
- **Adapt local code:** Although neither the tiny houses nor a community of them were initially legal for residential occupation, the city added a definition of the houses and the community to their code in order to fit OM into their current regulatory structure. The City considers the tiny houses to be "Portable Shelter Units"[2] (PSUs), and consider the residential cooperative village to be a "Portable Shelter Community"[3] (Strange, 2014).
- **Establish nonprofit governing organization:** In order to buy land and work with the city effectively, OM had to become a formal entity. They registered as a nonprofit which made it easier for them to consolidate their efforts to collaborate with the local government, to take out a mortgage collectively, and exempted them from property taxes. Developing a governing organization also added structure to the community in a way that continued to meet the unique needs of the residents.
- **Accommodating unique internal norms:** Occupy Madison, with its incredibly diverse population, recognized that certain norms could be stifling to people. The group needed to become flexible and open-minded with regard to what their meetings look like so that people feel comfortable and able to participate. Even the formal meetings are "pretty free-form" and "get very energetic [and] heated", which can be intimidating for people who might be used to a calm meeting (Clemente, personal communication, 2015). However, establishing a functioning governance structure required the adoption of norms that meet the needs of residents. At this point, even through tension and what appears to be chaos, residents at OM work together well.
- **Addressing opposition head on:** Advocates and members of OM realized that if they could specifically address neighbors' concerns and put power in their hands, they would be able to address opposition rationally. The organization developed a method that would allow them to be held accountable for things that the opposition feared: when they received criticism, they would answer to these criticisms directly on their website. This legitimized the neighbors' concerns but allowed OM to ensure the neighbors that their concerns were unnecessary. Eventually, the majority of neighbors realized that many fears were unfounded and derived from misperceptions about people experiencing homelessness (Clemente, personal communication, 2015).

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[2] PSUs include "any movable living quarters, no more than 150 square feet in area, used as an individual's permanent place of habitation. For purposes of this definition, a permanent place of habitation is established when an individual lives in a portable shelter for four (4) consecutive months" (Strange, 2014).

[3] A Portable Shelter Community is "[a]ny site, lot, parcel, or tract of land designed maintained, intended or used for the purpose of supplying a location or accommodations for more than three (3) portable shelters and shall include all buildings included or intended for use as part of the Portable Shelter Community" (Strange, 2014).

- **Work directly with neighborhood**: Another method of outreach that OM used to overcome opposition was to set up community meetings between residents of OM and neighbors who had mixed levels of support. Meeting residents face-to-face humanized both parties and eliminated the fear of the unknown that contributes to stigmas associated with unhoused people. OM was also willing to compromise with the neighbors: the neighborhood association gave them a six-point conditional statement that addressed issues like noise, litter, and hours of operation for the tool shop. The neighbors also wanted the City to retain the power to revoke the permit at any time that the neighborhood felt like they were a detriment to the community. Finally, OM hosts community dinners every Saturday where community members can come meet village residents (Clemente, personal communication, 2015).
- **Build an aesthetically appealing community**: Occupy Madison was able to overcome a significant portion of remaining opposition by ensuring that their property is aesthetically appealing. The tiny houses are neat and well-kept, the village contains community space like gardens, and residents work to keep the area clean. Much of the neighborhood views the village as an improvement from the vacant lot that the site once was (Mingoya, 2015).
- **Diversify support:** Generating support from a diverse swath of the public was what eventually gained OM such success (Mingoya, 2015). Advocates and members of the initial community pooled their resources (after forming a nonprofit) to take out a mortgage from a local credit union. After working to develop widespread community support, Occupy Madison also received donations in the form of materials, labor, and funding from local businesses and individuals. Finally, they received a $12,000 grant from Freedom from Religion Foundation which helped them cover initial capital costs (Clemente, personal communication, 2015).
- **Generate revenue:** OM funds their ongoing costs through an online store where they sell Occupy Madison branded items to the general public. These include high quality wood products, art, t-shirts, bumper stickers and calendars (Occupy Madison, 2013 b).
- **Expanding slowly:** Even though Occupy Madison Village plans to eventually have nine or more tiny houses for people experiencing homelessness, they started small. They currently have five houses and plan to add more over the next few years. Starting small and expanding their community slowly ensures that their growth is sustainable, lessens the impact of their growth on the surrounding neighborhood, and is more financially feasible. They can show that there are few or no negative impacts and gain community support before they scale up their operations. Finally, this slow growth ensures that the organization can stick to its mission while also meeting the needs of individuals experiencing homelessness (Clemente, personal communication, 2015).

Second Wind Cottages

Main Barriers
- **Funding:** Financing the construction of the tiny homes was initially slow-going. Second Wind received no early financial support from the public sector, having to rely completely on private donations (Furst, personal communication, 2015).
- **NIMBYism:** Second Wind Cottages is located in a residential area and the neighbors initially opposed the establishment of the community, citing concerns like the view of the landscaping being obstructed (Furst, personal communication, 2015).
- **Stigma of homelessness:** Neighbors had preconceived perceptions of what the people experiencing homelessness would be like and how their proximity might negatively impact the community (Furst, personal communication, 2015).
- **Lack of coordinated mission:** Two different groups were involved with the development of Second Wind Cottages. Community Faith Partners (CFP) is a nonprofit organization that acts as the village's fiscal sponsor, managing funding. Their hope was that

Second Wind Cottages would provide transitional and emergency housing for people experiencing homelessness. Another group involved, the Second Wind Cottage team, is in charge of managing village operations. They had a different idea for the role Second Wind Cottages would play, hoping that the cottages would provide permanent, supportive housing rather than transitional housing (Furst, personal communication, 2015). These different visions for Second Wind Cottages complicated implementation.

Main Strategies

- **Coalition building:** Advocates worked closely with the local partners from the faith community, nonprofits and local businesses to build political and financial support for the village.
- **Diversify support:** Over 100 local businesses, organization and individual residents donated their volunteer labor or materials to the construction of the houses (Robertson, 2013).
- **Partner with local government:** The local zoning inspectors worked with the Community Faith Partners to help them meet requirements.
- **Develop government allies:** The mayor of Ithaca had experienced homelessness in the past and strongly supported their movement (Furst, personal communication, 2015).
- **Personalized outreach and relationship building:** Advocates of Second Wind Cottages addressed each of the opposing neighbors individually, conducting personalized outreach to each community member.
- **Widespread outreach:** Advocates also attended town meetings to show community members the site plans for the community, and since then, even those who were initially the strongest opponents are now supportive (Furst, personal communication, 2015).

Dignity Village

Main Barriers

- **Inability to rent land**: Initially, Dignity Village was not a nonprofit organization and was not able to rent land from the city because the city could not contract directly with them (Mays, personal communication, 2015).
- **Internal conflict**: Self-governance led to internal conflict and other social challenges (Mays, personal communication, 2015).
- **Insurance:** The village is required to have liability insurance which increases the village's operating cost. This means that the cost to the villagers must be higher as well (Mays, personal communication, 2015).
- **Difficulty finding site:** The City of Portland had a difficult time finding a site that they felt would be appropriate for Dignity Village. The group had a list of requirements for any site that included access to transportation and proximity to the city. The two parties were forced to compromise and in 2001 the City allowed the group to locate at Sunderland Yard temporarily. The impermanence of site was challenging to residents, and led organizers to push the City to allow them to remain on a more permanent basis. In 200, after three years of annual contract renewal, the Portland City Council officially sanctioned the tiny house and allowed it to remain on a more permanent basis (Dignity Village, n.d. a).
- **Location in industrial area:** Dignity Village is currently located in Sunderland Yard, an industrial area near a jail, some shipping facilities, and a few houses. The village shares a lot with a municipal leaf composting facility and it does not feel like a peaceful or welcoming environment. Loud noises from trucks, the composting facility, and the nearby airport, and strong smells are noticeable. Because it is located on the outskirts of the city, transit service is infrequent and it is difficult for residents to access

amenities (it takes 85 minutes by bus to get downtown; Mingoya, 2015). Being so far from the rest of the city makes the community feel isolated, unwanted, and disconnected from the rest of Portland (Mays, personal communication, 2015).

- **Funding operations:** While it was not difficult for Dignity Village to come up with the initial capital to build the houses, they only charge $35 in monthly rent to residents, and have had to find other ways to come up with funding for operation and maintenance.
- **Stigma of homelessness:** Many people have a misunderstanding of what it means to be homeless – they assume that this entails crime, violence and drugs. This stigma makes it difficult for micro-villages serving unhoused residents to find a site and access support (Mays, personal communication, 2015).

Main Strategies

- **Establish a nonprofit organization:** Dignity Village incorporated as a nonprofit organization and then was able to contract with and legally rent land from the City of Portland. The organization is also working to have more external oversight, including adapting their bylaws and ensuring compliance with local ordinances (Mays, personal communication, 2015).
- **Zoning and Location:** Oregon has a state law that allows six municipalities to designate up to two sites as "Designated Campgrounds" to be used as transitional housing for people experiencing homelessness (ORS 446.265; State of Oregon, n.d.). This law allowed the City of Portland to designate the Sunderland Yard site as a campground for people experiencing homelessness and helped Dignity Village overcome many of the zoning barriers that challenge micro-villages in other areas (Dignity Village, n.d. a).
- **Support from community:** Being well-known increased community support. Initially the community was completely funded by private donations. Most of the material and labor were donated or volunteered by community members and village residents. Much of this support may be due to Portland's supportive political climate (Mays, personal communication, 2015).
- **Work with local government:** Although initially tenuous, developing good relations with the City of Portland has helped Dignity Village in several ways. The City helped them negotiate a lower insurance premium and has provided some financial support.
- **Connect residents to off-site social services:** A local nonprofit, JOIN, sponsors a staff member (Katie) to work onsite to help residents connect with social services throughout town. Katie agreed to be interviewed and gave me a tour of Dignity Village.
- **Innovative funding opportunities**: Dignity Village has developed an onsite microbusiness where village residents chop wood, much of which is either donated or collected off-site, and sell it as firewood. These proceeds fund the remainder of the operating costs that are not covered by rent (Mays, personal communication, 2015). For years Dignity Village also ran a microbusiness food truck called Dignity Dogs selling hot dogs in downtown Portland to raise funds (Dignity Village, n.d. b).

Quixote Village

Main Barriers

- **Industrial location:** One main challenge facing residents relates to being located in an industrial area. The land that Thurston County allowed Quixote Village to occupy is in an industrial area next to a diesel engine manufacturer and a bottling plant. This location provides a challenge to the village residents because it is far from downtown and bus service to the area is lacking. Being in an isolated location isn't all bad though: some residents are recovering from addiction so being further away from downtown helps them control their environment and stay clean (Severn, personal communication, 2016).

- **Community opposition:** The community initially faced significant opposition from industrial neighbors who took Panza to court twice to prevent the village from locating on the land. The courts ruled in favor of Panza and they were allowed to located on the county land (Severn, personal communication, 2016).
- **Funding:** Initially Quixote Village struggled with accessing the funding necessary to pay for construction and operation.
- **Finding a viable site:** Quixote Village started as a camp protesting city ordinances that targeted behavior related to homelessness (like sitting or lying down on sidewalks in downtown Olympia). Police threated to clear the site and arrest people who remained after the sweep, so a church allowed the camp to locate on its land. In response, the City of Olympia recognized the act of hosting the camp as expression of religion and the camp was allowed to remain. Quixote Village struggled with the City of Olympia for seven years to find a legal site, during which time the camp was moved over 20 times (Community Frameworks, 2015).

Main Strategies
- **Work with local government**: After an initially contentious relationship, the village is also now supported by the City of Olympia and Thurston County. Thurston County leases the two-acre piece of land to Panza through a 41-year lease for $1 per year. The land is zoned for Light Industrial use and the City of Olympia grants Panza a conditional use permit to use the land for the SRO units.
- **Partner with local transit authority:** The Village is located in an industrial area outside of the main downtown area. It is difficult for residents to access resources and services because few of them own their own cars and bus service to the area is poor. To supplement the poor transit service, the local transit authority lets them use a van.
- **Meet criteria to qualify for federal funding:** In order to receive funding from the U.S. Department of Housing and Urban Development (HUD), Quixote Village had to be classified as permanent supportive housing for chronically homeless people, and the tiny houses had to meet a definition of SROs established by either HUD or the local government. The City of Olympia redefined "single room occupancy" (SRO) in its municipal code to exactly meet the specifications of the tiny homes at Quixote Village (Community Frameworks, 2015). Now the houses each qualify for project-based rental assistance, with Section 8 funding filling the gaps between the determined market value of the houses ($450/month) and what the residents pay (30% of their income). The city also used federal HOME dollars to fund the construction of the houses. One great benefit from qualifying for project-based rental assistance is that once the residents live there for a year they will automatically qualify for a Section 8 Housing Choice Voucher to receive support elsewhere if they wish (Severn, personal communication, 2016).
- **Develop a coalition to lobby for funding:** Panza and advocates successfully developed a strong coalition to lobby for funding at various governmental levels. They went before the Washington State legislature to ask for State Housing Trust Fund money. This group also successfully asked the City Council, County and State for financial support (Severn, personal communication, 2016).
- **Diversify funding:** Funding for capital costs came from the Washington State Housing Trust Fund, HUD CDBG funding, Thurston County land donation, a grant from Thurston County and private grants and donations. Washington State committed $1.5 million from the Housing Trust Fund for this project, viewing it as a pilot program for other micro-villages (Community Frameworks, 2015; Severn, personal communication, 2016).
- **Coalition building and partnerships:** Along with support from Thurston County's religious community, Quixote Village has had strong support from local community members including an architect (part of a local church) who designed the houses and community with input from residents (Severn, personal communication, 2016).

- **Establish governing organization:** Although Camp Quixote was initially self-governed, when they moved to a permanent site they transitioned to a more formal external governance system. In addition to providing governance and ensuring that the community is in compliance with city ordinances, Panza also helps with fundraising and provides two full time staff members: a social worker and program manager (Severn, personal communication, 2016).
- **Community agreement:** All residents have to comply with a strict community agreement regarding behavior and expectations (Quixote Village, n.d.).

Opportunity Village Eugene

Main Barriers
- **Initial lack of credibility: T**he greatest challenge in implementing Opportunity Village Eugene (OVE) was an initial lack of credibility (Heben, personal communication, 2016). Originally, the individual advocates of Opportunity Village were not a formal organization and many were unhoused. This complicated fundraising efforts, and made it more difficult to get the community and public agencies to take their ideas seriously (DiNatale, personal communication, 2016; Heben, personal communication, 2016).
- **Lack of community support/NIMBYism:** OVE faced challenges while working to find a space to conduct a pilot program. Much of this struggle was fueled by community opposition. Neighbors were concerned that proximity to a "homeless camp" would increase crime and violence, and decrease the appearance of the neighborhood (DiNatale, personal communication, 2016; Heben, personal communication, 2016). This NIMBYism is strongly influenced by the stigma of homelessness.
- **Funding construction:** Because it emerged organically from the Occupy Movement and a group of unhoused people protesting the treatment of people experiencing homelessness, initial funds were scarce. It was difficult for OVE to fund the initial capital costs of the village (DiNatale, personal communication, 2016).
- **Funding long-term operation:** Early support for the village was high due to its innovative nature and clear ability to meet a local need which led to substantial donations from the community. Over time however, financial support for OVE has dwindled even though the village still needs to cover costs associated with maintenance and operation (DiNatale, personal communication, 2016).
- **Industrial location:** The site that the City of Eugene finally identified for OVE is in an industrial neighborhood. Although the site is within one block of a bus stop and there are some services within walking distance, it can still be challenging for residents to access services and amenities: few of them own a car (DiNatale, personal communication, 2016).
- **Helping villagers transition out:** Although most of the village residents are employed, housing prices throughout Eugene are high enough to be out of reach for people throughout the city. Additionally, there is a substantial waitlist for Section 8 housing vouchers and all of the subsidized affordable units in the community are full. These units have wait times that vary from several months to five years. The local housing authority no longer accepts applications for single people seeking housing (Bryant, 2015).
- **Land use barriers:** The site that the city eventually identified for OVE was on a parcel of city-owned industrial land. It was not zoned for residential use (Heben, 2014).

Main Strategies:
- **Self-governance to foster a sense of ownership:** One of OVE's biggest keys to success was that they designed much of the operations of the village to be governed and managed by the residents. This has extended a sense of ownership to the village

residents which has helped to eliminate some of the fears and negative stereotypes that neighbors had about the villagers. Residents want to live in space that is clean and safe and having a sense of ownership over their community allows them to manage it to achieve these goals (Heben, personal communication, 2016).

- **Develop strong relationship with city leadership:** Eugene Mayor Kitty Piercy has been an advocate for people experiencing homelessness as well as for OVE. While the City had an adversarial relationship with the original camp, the Council supported OVE and, in 2013, passed a motion to authorize the City Manager to take a number of steps to find OVE a site (Heben, 2014). The city was willing to cooperate with the organizers of OVE including offering helpful input and helping them find a site. City staff has also been helpful with the implementation of Emerald Village Eugene (Heben, personal communication, 2016).
- **Accommodating ordinances:** Eugene City Council passed an ordinance (Eugene Code 9.2450) permitting OVE to operate under the classification of "homeless shelter" and only needed a conditional use permit to operate on industrial land (Heben, 2014).
- **Early neighbor involvement:** OVE (and now SquareOne) have developed an effective outreach strategy: informing and engaging neighbors early in the process. By bringing project proposals to neighborhood associations before they find out through other media, neighbors can be involved in the process of determining a site and other details.
- **Visually appealing structures:** The tiny houses at Opportunity Village are well-designed, high quality and very visually appealing (houses are colorful and decorative). Initial concerns from neighbors about impacts of a nearby tiny home community have been largely dissolved due to the cute homes, nice landscaping and well maintained site (DiNatale, personal communication, 2016).
- **On-site security:** To increase the safety of the village and decrease concern that neighboring residents and businesses may have regarding proximity to OVE, the village has constant on-site security (DiNatale, personal communication, 2016). Each resident is required to spend eight hours per week serving at the front desk at the entrance of the village (SquareOne Villages, n.d. a).
- **Community agreement:** OVE's residents must comply with five main rules: "No violence, no theft, no alcohol or illegal drugs on-site, no persistent, disruptive behavior, and everyone must contribute to the operation and maintenance of the Village" (SquareOne Villages, 2015). Villagers participate in weekly meetings where decisions are made collectively. There is minimal oversight from the organization's Board of Directors (Bryant, 2015). Residents also agree to several principles that foster a supportive community that manages conflict in a peaceful way (Opportunity Village Eugene, n.d. b).
- **Build with volunteer support:** OVE was built over nine months, relying substantially on volunteer support. Villagers and advocates continue to conduct much of the repairs throughout the community (Bryant, 2015).
- **Establish formal nonprofit:** OVE has benefited from having a formal nonprofit organization, initially called Opportunity Village Eugene and renamed SquareOne Villages, to coordinate relations with the City of Eugene and to facilitate fundraising. People are more likely to donate to an organized entity than to a group of people who may appear to be less organized. OVE/SquareOne Villages conducts fundraising efforts through their website and through a successful GoFundMe campaign (DiNatale, personal communication, 2016). SquareOne also helps OVE funding operation: the organization includes funding OVE in its mission and can use donations for several causes (DiNatale, personal communication, 2016).
- **Provide bus passes for residents:** Because the village is in an industrial part of town, SquareOne Villages provides bus passes to the residents. This helps residents access services and resources that are not within walking distance from the village even though bus service to the area is less frequent than it could be (DiNatale, personal communication, 2016).

Appendix D: References

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