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THE PSYCHOLOGICAL BARRIERS TO COMPOSTING IN UW GREEK HOUSING



**ONE FRATERNITY'S TRASH
ANOTHER FRATERNITY'S COMPOST**

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PROJECT OVERVIEW.....	3
PROBLEM	4
GOAL	5
PRODUCT.....	5
SIGNIFICANCE.....	8
CONTENT	9
COMPOSTING.....	10
SEATTLE LAW & EFFORTS.....	10
GREEK HOUSING	12
LITERATURE REVIEW	14
PREFACE	15
SEATTLE PUBLIC UTILITIES OUTREACH APPROACH	15
COMMUNITY-BASED SOCIAL MARKETING.....	16
SIGNIFICANCE.....	25
METHODOLOGY	26
COMMUNITY – BASED SOCIAL MARKETING	27
ONE – ON – ONE INTERVIEWS	29
SURVEY HOUSE MEMBERS.....	30
GROUP INTERVIEWS	31
BARRIER METRICS	32
FINDINGS & ANALYSIS.....	34
UW GREEN GREEK REPRESENTATIVE MEETING.....	35
PSI UPSILON	36
SIGMA KAPPA.....	38
SIGMA ALPHA EPSILON	40
COMPARE BETWEEN GREEK HOMES	43
MOVING FORWARD	45
COMPARE TO OTHER MULTIFAMILY HOUSING	47
MOVING FORWARD	48
CONCLUSION.....	49
BIBLIOGRAPHY	51

Seattle is currently focusing on citywide composting with high priority on improving multifamily housing participation. The city enacted a composting law that prohibits compostable food and paper from being disposed of in waste bins. Fines were previously being issued to property owners who have 10% or more of food waste in garbage containers as a way to provide financial incentive. However, this law and fine does not directly impact tenants in multifamily housing because they don't have personal accountability for what goes into the communal waste bins. The University of Washington Greek housing is a type of multifamily student housing that is currently faces similar issues with creating collective participation to compost. Without financial incentive, both settings are facing various psychological barriers to transitioning to composting. What are the psychological barriers preventing the practice of composting in UW Greek housing? How can these barriers relate to tenants in Seattle multifamily housing? The communal nature of Greek housing provides an ideal point of focus for information collection. Using surveys, interviews, and quantitative measurements, I investigated how these different psychological barriers to composting are manifested and compared them to Seattle residents in multifamily housing. My research shows that these barriers to compost stem from a lack of knowledge, an absence of motivation, unsupportive attitudes, or general inconvenience. In response, the researcher suggests sustainable interventions for low and high barriers in multifamily housing. Implications of this research include potential to increase compost participation by informing outreach programs in non-traditional housing.

PROJECT OVERVIEW

PROBLEM

WHY IS IT IMPORTANT TO FOCUS ON MULTIFAMILY HOUSING? The problem I will be addressing in this project is the unique burden multifamily housing falls under when it comes to fines on the Seattle composting law. Currently, there is a law on composting in the City of Seattle that restricted food and compostable paper from waste bins. Previously property owners who had more than 10% of food waste or recyclables in their garbage containers were issued fines. These fines directly impacted business owners, single family residents, and apartment managers. However, these fines did not directly impact multifamily tenants because tenants didn't have personal accountability for what went into the communal waste bins. Communal waste bins make it impossible to identify which tenants are not complying with the law. In 2014, single family dwellings were composting at 70% rate whereas multifamily dwelling were only composting at 34% rate. In the past year the ordinance on composting fines have been blocked by the County court, however the barriers to transition to composting for tenants still remain the same. Being that multifamily housing takes up a significant portion of the city and because those living in them are impacted differently, there ought to be a focused effort on helping tenants and multifamily property management transition into composting.

The efforts that are currently being made are information-incentive outreach strategies to promote composting. The lead government agency for implementing this new law and conducting the outreach on composting is Seattle Public Utilities. However, this tactic has shown to be ineffective to creating big behavior change. The assumption that individuals make personal changes when they become increasingly aware of an issue is a misconception. Developing a new continuous routine takes high amount of motivation. That is why Seattle Public Utilities working on an alternative approach to transitioning tenants into composting by engaging the community in a discussion about the psychological barriers to composting.

GOAL

The goal of my project is to find ways to help improve multifamily housing participation with composting. I hoped to do so by identifying the different psychological barriers to composting in this setting and creating solutions that are tailored to each unique barrier. By taking on a better outreach method than information-based campaigns, we can successfully create behavioral changes, help to reduce the burden of those in Seattle multifamily housing, and create effective collective action.

PRODUCT

My final product will be a strategy on identifying the psychological barriers in multifamily housing within this report. This report provides references of how I developed my strategy as well as recommendations of how to apply it.

My Report

Literature review

My report includes research on outreach techniques including the information-based outreach approach Seattle Public Utilities is using as well as an alternative approach called Community-Based Social Marketing. This alternative approach makes psychology the central role in outreach and it has research on what barriers to transitioning to sustainable practices looks like. For each barrier that they have identified toward composting, I have referred to a specific Community-Based Social Marketing case study where they have helped overcome that barrier.

My methodology is shaped by the Community-Based Social Marketing approach which provides steps to achieving a final product or pilot program. The methodology is the process I will be providing as a strategy on identifying the psychological barriers in multifamily housing. The strategy includes engaging homes through surveys, one-on-one interviews with green leaders of the house, and group interviews with house members to discuss barriers, motives, and potential solutions. I also used that qualitative information and plugged it into a barriers metric key chart that has helped me identify their main barriers. By identifying the main barriers, I was able to determine the best interventions that will help them transition into better composting practices. This methodology can be used to either continue or replicate my work.

UW Greek Focus Group

I have used the University of Washington Greek housing as my multifamily housing focus group. UW Greek housing is a type of multifamily student housing that is currently faces similar issues with creating collective participation to compost.

I have chosen to work with this community because they are easily accessible which worked well with my project time frame and that there is a strong presences of environmental leaders within the community who are eager to apply my research within their own house. For this project I have collaborated with UW EcoReps Green Greek Representative

program to get insight on different Greek chapters composting practices. The communal nature of Greek housing provides an ideal point of focus for information collection. For each house I worked with I did



survey's with house members, one-on-one interviews with EcoReps and group interviews with house members. I also used that qualitative information and plugged it into a barriers metric key chart that has helped me identify their main barriers.

Compare Findings to Other Multifamily Housing

I investigated how these different psychological barriers to composting are manifested within UW Greek housing and compared them to Seattle residents in other multifamily housing. I identify the major similarities and differences between Greek Housing the other types of multifamily housing and determine what my findings can relate to and what further research needs to be done.

Recommendations on Moving Forward

I provided recommendations both to UW Greek housing and Seattle Public Utilities on how to use this research to improve participation with compost.

I analyzed my findings from the UW Greek housing and develop a conclusion of the psychological barriers to sustainable behavior change with composting in Seattle multifamily housing and provided recommendations on how to incorporated those finding into Seattle Public Utilities' current incentive programs. I also provided recommendations on how to conduct their outreach campaigns. This research is a foundation for identifying psychological barriers to composting that can be added to as we continue to learn more about this sustainable practice. It can also be used with other scopes beyond the multifamily housing.

SIGNIFICANCE

Composting is a significant on a global scale and requires collective actions and independent action. Anthropogenic emissions are the biggest contributors to the United States carbon footprint. Compostable material makes up a large portion of landfills and that can easily be diverted with proper waste distribution. Transitioning into sustainable practices has never been more crucial than it is today. We can collectively prevent mass amounts a material accumulation in landfills and reduce the high levels of methane emissions by transitioning into composting practices.

I am very passionate about environmental sustainability. My academic focus is on sustainability planning and climate change mitigation and adaptation. Professionally, my work has centered on building collective action to mitigate environmental impacts from a variety of lifestyle choices. I had previously worked on commute trip reduction at UW Transportation Services and was interested in investigating other sustainable practices. I chose to focus on composting because it was a practice I was looking to personally improve on. For this composting project, I applied my previous work experience from UW transportation Services to shape my methodology. At UW Transportation Services, I helped promote sustainable transportation options such as walking, bicycling, transit, and ridesharing. We conducted outreach using a communication technique called Motivational Interviewing that helped identity people's motives so we could provide sustainable options that sound more appealing to them. I've applied my outreach knowledge and public engagements skills to identify the different psychological barriers to composting in multifamily housing. I would be interested in apply these same methods to other sustainable practices.

CONTENT

COMPOSTING

Composting is a collection of food and yard waste that can be reused as fertilizer for gardens and landscape. Many organic farmers and urban residents use this approach to help maintain the health of their soil without synthetic pesticides as well as divert waste from landfills. Waste is one of the largest contributors to carbon emissions in the United States and organic materials continue to be the largest component of municipal solid waste. “Paper and paperboard account for 27 percent and yard trimmings and food account for another 28 percent (EPA. 2015).” Waste emissions can be avoided through waste reduction, sustainable product design, recycling and composting. By diverting food waste from landfills much of the methane emissions can be reduced. Fortunately, the city of Seattle offers city-wide composting making it easier to keep food waste from landfills.



SEATTLE LAW & EFFORTS

Seattle Climate Action Plan

Seattle made waste reduction one of the top priorities in the 2012 Climate Action Plan (CAP). The CAP sets the goal to “divert waste from landfill to recycling and composting 70% diversion rate by 2022. This plan aims to help the city reduce emissions from collection, processing, and disposal and avoid

substantial upstream emissions (Seattle's Climate Action Plan. 2012)." Seattle Public Utilities is the lead agency for implementing waste reduction and has set 4 short term goals towards improving composting methods by 2015. The actions they are looking to take are (1) help households and businesses reduce food waste through better planning, purchasing, storage and preparation, (2) increase enforcement of residential and business recycling and composting

requirements, (3) ban from residential and business garbage; asphalt paving and shingles, concrete, bricks, plastic film, clean wood, food, compostable paper (4) enhance outreach and education about recycling and composting to residents and businesses.



Seattle Composting Law and Fines

The City's effort toward meeting their 2022 goal includes establishing the law on composting that restricts food and compostable paper from waste bins. Previously property owners who had more than 10% of food waste or recyclables in their garbage containers were issued fines. These fines directly impacted business owners, single family residents, and apartment managers. This law was enacted in 2015 and fines were distributed soon after (Seattle Solid Waste Plan, 2013). Single family households faced small \$1 fines for infractions per waste bin that contain recyclable and compostable goods. Large property owners such as apartments or Greek homes were issued \$50 fine per infraction.

This law was recently blocked by the King County Superior Court on April 27, 2016. Single family homeowners filed a complaint arguing that the Seattle ordinance that allowed garbage collectors to snoop through residents' trash in search of food was unconstitutional and was a breach of resident's privacy (Blevins, 2015).

GREEK HOUSING

The University of Washington, located in Northeast Seattle, provide Greek fraternity and sorority student housing that is considered multifamily housing. When Greek homes faced infractions for improperly composting they received \$50 fines per waste bin. As a whole, the Greek community does not excel at recycling or composting. However, the University as a whole has made large strides to make sustainable changes and to enact sustainable leaders all around campus through the student run program called EcoReps. UW EcoReps works closely with the UW Greek Community and has help provide Greek houses the opportunity to add a sustainability chair or a Green Greek Representative to help promote sustainable practices.

UW EcoReps

The student-run organization EcoReps works with UW students, faculty, and staff to help provide sustainability representation for various groups and facilities around campus. UW EcoReps works closely with the UW Greek



Community to and helps bring sustainability representation with in Greek homes. These different representations include Sustainability Chairs and Green Greek Representatives (UW Sustainability, 2016).

Sustainability Chair

Sustainability chairs with UW Greek homes are solidified house positions. Those who hold this position can more easily enact change. They take on the responsibility to help make their house more sustainable and encourage their house members to be more ecofriendly. These responsibilities can include maintain a main compost receptacle and compost disposal systems throughout the house property or implement more eco-friendly alternatives to house supplies. However, this position is more difficult to enact in the house. A faster alternative solution to adopting a sustainable leader is establishing a Green Greek Representative.

Green Greek Representative Program

Green Greek representative is a non-solidified voluntary house position. This is a brand new outreach program started by UW EcoReps that aimed at increasing sustainable operations in the Greek Community. It offers each house the opportunity to have an elected member that can become well versed in sustainable practices that can then be shared with their fellow house members. The programs holds monthly meetings that will teach member about sustainable operations and their available resources. These representatives take on the responsibility of educating their house members about ecofriendly lifestyle choices and as advocating for more sustainable resources and infrastructure (Haller, 2016).



LITERATURE REVIEW

PREFACE

The City of Seattle has enacted a law on composting that restricts food and compostable paper from waste bins. Previously property owners who had more than 10% of food waste or recyclables in their garbage containers were issued fines. These fines directly impacted business owners, single family residents, and apartment managers. However, these fines did not directly impact multifamily tenants because tenants didn't have personal accountability for what went into the communal waste bins. Unlike in single family housing where residents have full responsibility of what goes into their waste bins, the communal waste bins at multifamily dwellings don't specify who is throwing what waste in what receptacle. Tenants don't have accountability for what goes into their bins, which would place the financial burden on the property owners. Since the property owners were receiving the fines and not the tenants, there may have been less incentive for the tenants to compost. This is an issue that needs to be addressed and since multifamily dwellings take up a large portion of the city there ought to be an outreach campaign that informs property management, landlords and tenants on how to overcome their barriers to compost.

SEATTLE PUBLIC UTILITIES OUTREACH APPROACH

There are many ways to conduct outreach on promoting sustainable practices such as composting. The problem is that the most popular method of outreach is to provide a heavy amount of content, which has shown to be ineffective. The goal of this approach would be to provide the public with educational material to help them transition to composting but knowing more about a practice doesn't effectively cause a change in behavior. The lead government agency for implementing the new law and conducting the outreach on composting is Seattle Public Utilities. SPU has developed outreach strategies to inform

the public on the mandate and has provided guiding steps on how to take action. The way they go about this is through mailing educational materials, putting notices and flyers on garbage cans and dumpsters, paid advertisements on TV, radio, print and transit, as well as online promotions. “A mid-March survey by Seattle Public Utilities (SPU) found that 71 percent of Seattleites are aware of the new composting law (Office of Mayor Murry)”. This approach is common in outreach because it’s a way to get a message out on a broad scale through various outlets. What this survey fails to share is that percentage of people who started composting after being informed. There is a common misconception that individuals change behavior when they learn more about an issue. A variety of studies have established that enhanced knowledge and supportive attitudes often have little or no impact on behavior. This method of outreach is referred to as the Attitude-Behavior approach. This approach “assumes that changes in behavior are brought about by increasing public knowledge about an issue, such as climate change, and by fostering attitudes that are supportive of a desired activity, such as taking the bus rather than driving (Mackenzie-Mohr, 2013)” This attempt to alter behavior through education has shown to be ineffective. The assumption that individuals make personal changes when they become increasingly aware of an issue is a large oversight. Developing a continuous routine takes a high amount of motivation. Further efforts need to be made to identify tenant’s motives and barriers in order to invoke behavioral change with tenants in Seattle multifamily housing.

COMMUNITY-BASED SOCIAL MARKETING

I propose an alternative method to the attitude-behavior approach called Community-Based Social Marketing (CBSM) that has shown to be very effective in creating behavioral change. This approach was developed by Doug McKenzie-Mohr, an environmental psychologist who found psychology to be the central role in the transition to a sustainable future. This approach “aims to produce behavioral change via direct communication and community level initiatives, concentrating upon removing barriers to

change (McKenzie-Mohr, 2013).” Social science research has shown that the most effective way to creating behavioral change is community level initiatives to remove the psychological barriers to the sustainable practice by engaging the audience that is facing these barriers. He argues that information-based outreach campaigns made to promote sustainable practices don’t make strong progress. “To date, most programs promoting sustainable behavior have featured information-intensive campaigns that make little use of psychological knowledge (Mackenzie-Mohr, 2000).” His approach engages with communities to determine the barriers and benefits of promoting a behavior type. The steps to take when engaging with a community are to (1) select a behavior to promote and an audience to promote it to, (2) identify barriers and benefits to conducting that behavior, (3) develop a strategic approach to changing behavior, (4) pilot the strategy, and (5) implement it on a broad scale.

Barriers

The behavior we are looking to promote is composting and the audience we are assisting are tenant in multifamily housing. To effectively promote this behavior type, the potential barriers and benefits of conducting this behavior need to be identified. Doug McKenzie-Mohr has identified some of the barriers of transitioning into sustainable behavior to be “internal to an individual, such as one’s lack of knowledge, non-supportive attitudes or an absence of motivation. On the other hand, barriers may reside outside the individual, as in changes that need to be made in order for the behavior to be more convenient (e.g., providing curbside organic collection) or affordable (e.g., compost units) (McKenzie-Mohr, 2013).” When it comes to composting in apartments, tenants can face any one of these barriers. For each barrier type, excluding affordability, I have provided a description of these different type of barriers and have paired it with case study examples of tactics to overcome that barrier.

A barrier that tenants may face when it comes to composting is having little to no knowledge about what waste is distributed into which bin. This can be due to tenants not having exposure to information in their building, not seeing the information through the various advertising outlets, not hearing it through the word of mouth, or the information is not printed in their primary language. We are also now aware that heavy content and considering education alone has shown to be ineffective. A solution to the barrier would find a way to share information while also promoting benefits and making it convenient.

A way to overcome this barrier is to provide visual prompts near the receptacles. Prompts can be a great way to educate tenants to compost. Prompts are the “cheat sheet” that provide directions to perform the action. This ranges from bullet points to just suggestive images. Prompts that communicate with images are a great way to grab people's attention and communicate to people of all languages. It is most effective when it is noticeable, self-explanatory, and in close proximity to receptacles or sites where the behavior is conducted.

Providing educational information around receptacle has shown to greatly improve proper waste distribution. A university campus recycling program in Austin Texas performed a case study of the location of prompts placed above the receptacles versus prompts placed several meters apart from the receptacle. The study showed that in the first department where prompts located above receptacle saw recycling activity increased by 54%, whereas in the second department where prompts were located several meters apart from the receptacles only saw recycling behavior improved by 17%. Once they moved the prompts closer to the receptacles in the second department, activity increased to 22% (Kennedy, 2010). This case study shows the importance of prompt location. When prompts are located next to the place of action people are more likely to perform that action. This concept related to how many of us learn new information. Taking in information away from the place of action, for instance receiving an educational pamphlet in the mail about composting versus seeing the composting

information near a bin, doesn't always encourage us to act because we may not remember to perform that action later on. However, incorporate education into these areas where the action takes place can encourage a routine. It is important that learning and action is pair together to help promote this behavior. A convenient way to promote composting can be to perform outreach around receptacles. Prompts can also be paired with a visual display of the community's social norm. This can be further explained under unsupportive attitude where I address the power of social norms.

Absence of Motivation

Tenants in multifamily housing are most likely to face internal level barriers. Motivation to compost is the most complex among the barriers. Author Les Robinson of "From Environmental Education to Social Change" identifies motives that create behavioral change. He states that there are four common threads for individuals who experience change; "(1) Personal desires or aspirations were being frustrated, (2) a trigger event which precipitated the change – this usually involved interactions with other people, especially 'trusted others', (3) Outside services or products often facilitated the change, (4) The necessary skills were there at the right time. (Robinson, 2001)." Identifying what these motives may look like in multifamily housing is essential.

(1) Personal desires or aspirations were being frustrated

Ways that a person's desires could be frustrated are fines exceeding the worth not to act or perhaps the waste receptacles being too small to hold all types of waste. Either situation forces an individual to distribute their waste into proper receptacles to avoid these consequences. An example of personal desires being frustrated would be financial incentives being installed and Using user fees to increase motivation to compost. This approach is called negative incentivizing. It is when you motivate be to act by threatening them with a type of consequence if they don't. In multifamily housing there could be an incentive for tenants to get a compost bin or pay an

additional fee that is added to their rent. Tenants can either receive a counter top bin from their landlord or inform their landlord they already own a bin.

(2) a trigger event which precipitated the change – this usually involved interactions with other people, especially ‘trusted others’

A life changing event that could help initiate composting practices into a daily routine could be moving into a new place. This relates to the study at Oberlin College that explored first year students. Oberlin College focused on reducing energy consumption and aside from improving the contributing technology they also looked to change on campus behavior. One of the many approaches they took was working with first year students in the fall quarter. “Research has shown that reaching students early on in their college areer has manifold benefits: their habits have not yet been formed, so we can more readily influence their behavior; they are more receptive their first year before they get bogged down with other commitments; their actions, if continued, have a longer impact.” (Deeter, 2013) These individuals are entering a transition period and have not yet built their habit. Applying this to multifamily could be making composting a new priority when transitioning into their new space. It helps establish a foundation for the start of a routine. Landlords may see a better response to younger tenants or perhaps tenants moving in from a different region that are more eager to take on new cultural norms.

(3) Outside services or products often facilitated the change

Government sectors such as SPU typically perform outreach at businesses, school, public venues to help promote a new service. Typically, in this sense they are prompting a positive incentive meaning they are providing awards and give a sense of accomplishment whereas negative incentives such as laws and fines look to punish. Economic incentives have the potential of motivating people to change behavior, however it fails to address the underlining issue of why

they did not perform the issue in the first place. Who is say they would continue that action once the financial incentive was removed. Positive incentives have been shown to be more effective than imposed negative incentives. A study conducted in Portland Oregon was looking to incentivize people to recycle after the city ran into the issue of residents evading user-fees for garbage collecting my dumping in public waste baskets. “The city conducted research on how to successfully incorporate incentives and commitment. In the study a group of residents were monitored. One group that signed a public commitment to recycle for 4 weeks, one that made a private commitment, one that was offer incentives (coupons) another given information leaflets. The first 3 groups significantly increase - incentive 54 public 48 individual 67 but info only 9 (Kennedy, 2010).”

Positive incentives can be a potential way to motivate tenants to act. Having tenants make either public private commitments to the landlord to compost can motivate tenants to uphold their promises. Landlords offering coupons to a local popular business to tenants that advocate and promote composting to their neighbors. This approach could potentially install positive peer pressure that can motivate tenants to compost.

(4) The necessary skills were there at the right time

This could be that you were provided a compost bin when learning about the new compost law. The resource and the education arrived at the same time. This concept relates to motive number two. The educational material and the compost resources can be provided when moving into a new space.

There are three ways I broke down changing negative attitudes towards composting. They include (1) creating an effective message, (2) establish social norm, and (3) providing a compromising solution.

(1) Effective message

It's important to develop a message that appeals to majority of tenants in multifamily housing. An ineffective message that is regularly used is calling for action and showing how little action is currently being done. Studies have shown that people don't take action if they feel no one else is. In fact, showing that the majority of people don't take action may encourage that bad behavior. A famous example is when they aired the littering ad in 1971. They showed large amounts of litter with people throwing trash out their car window and a Native American man having a single tear stream down his face. The message of this ad was to help take care of our earth as the Native American community has, however they also promoted littering as the social norm. Showing that littering is a frequent occurrence may have an undesirable effect on viewer that could encourage them to engage in that action because it is socially accepted.

(2) Social norm

People are more likely to have a positive attitude toward composting if it the action has community support and is perceived as a social norm. Research has shown that norms have a powerful influence on people and has demonstrated some success with transitioning people into sustainable behaviors. In 1990 Nova Scotia banned organic material from landfills and counties began promoting backyard composting. Students surveyed communities to determine who was composting and who wasn't. When they learned that around 56 percent of householders were already composting, they decided to leverage this participation to help encourage the rest of the community to do the same. They asked residents who did compost to commit to placing a decal on the side of their garbage or recycling

container to show that they composted. Not only did this effort promote other households to participate, it also encouraged households who already compost to do so more effectively because they made a public commitment (Cialdini,1990).

(3) Compromise

Composting isn't appealing to everyone. Aside from being environmentally friendly, this method of disposing waste invites odor, flies and even rodents. There are methods that can be used to combat odor and disinvite pest. Tenants can compromise by not composting meat or dairy. This can help get rid of the flies and rodents.

Tenants may also find many things about composting to be inconvenient and don't want to make the effort. For instance, having a third waste receptacle and making room for that in a small apartment space. Seattle Public Utilities helps supply countertop compost bins and compostable bags to any property that signs up for the Friends of Recycling and Composting Program (FORC). Perhaps another effort that can be made is having a communal compost bins for each floor. This can be ideal for apartments with outdoor hall ways. It will allow tenants to see that their neighbors are participating and motivate them to engage on the new social norm.

Inconvenience

There is also obtaining a small indoor composting bin for your apartment or obtaining a larger or additional compost bin for your building. To speculate, those who compost typically live in a single family home and do "on-site" composting where they dispose their food waste in their backyard. Unfortunately, most apartments don't have "on-site" locations to compost.

The City of Waterloo, Ontario piloted a project that delivered compost units door-to-door as was done with recycling containers addresses this barrier. "When compost units are delivered for free,

participation rates can rival those for recycling programs. In that pilot project, a door hanger was distributed to 300 homes informing residents that they had been selected to receive a free composting unit. Of the 300 homes that were contacted, 253 (or 84%) agreed to accept compost units. In a follow-up survey, 77% of these households were found to be using their compost units (Mackenzie-Mohr, 2013)."

SPU has made it convenient and free for landlords to receive compost bins for their complex. A barrier this may pair with is knowledge. A solution may be for SPU to reach out to landlords and property management and offer larger or additional compost receptacles for their build if it is overflowing as well as offer some small countertop compost bins that landlords can provide to tenants. With additional composting receptacles, consider locations that are work with tenants routine; for example placing the indoor bin by the front door, fridge, stove, bedroom and outdoor bins near stairs, activity areas, and front and back doors.

Promote benefits is another way to change people's stance on composting. Learning that composting brings more benefits than inconvenience can help change individual's perception of the practice.

Benefits

There are many benefits to composting that can help promote the practice. Individuals can do a lot of good on a large scale to help reduce waste volume in landfills that will lead to a reduction in carbon emissions. Compost material can also be reused as soil fertilizer that can help supply nutrients to enrich and replenish. Composting is simply a way to help speed up the natural recycling process of decomposition. They can also do a lot of good for your community. For instance, the can be used for gardening, landscaping projects, land reclamation, and restoration worn down soil or even replacement contaminated soil. By sorting out composting goods, people can help create a healthy fertilizer product for gardening that reduce the demands of store bought fertilizer as well as the demand for water. For gardeners, composting has be a great financial benefit as well.

SIGNIFICANCE

The Seattle composting outreach campaign on the citywide scale runs the risk of overlooking different barriers. It also runs the risk of missing the different opportunities to create a progressive outcome of efficient citywide composting. I share the same opinion as McKenzie-Mohr that psychology has a central role in the transition to a sustainable future. With the large scale outreach campaigns overlooks these motivation barriers, there ought to be an outreach campaign that focuses on the barrier to composting in multifamily housing. I identified the potential barriers people may be facing with composting in multifamily housing to be in regards to convenience, knowledge, personal motivation, or attitude to composting. The key takeaway from this review is to acknowledge the barriers and transitions that tenants experience. Creating a community based outreach campaign that is shaped by the motivational barriers identified through qualitative data collected in the interview process that can help create behavioral change.

Being that multifamily housing take up a large portion of the city of Seattle and because those living in them are impacted differently, there ought to be an outreach campaign that helps transition landlords and tenants into composting.

METHODOLOGY

COMMUNITY – BASED SOCIAL MARKETING

I am looking to identify the psychological barriers tenants have to composting in multifamily housing. I have used the Community-Based Social Marketing (CBSM) method to obtain both qualitative and quantitative data on composting in multifamily housing. This is an alternative approach from information-based outreach campaigns that “aims to produce behavioral change via direct communication and community level initiatives, concentrating upon removing barriers to change (Mackenzie-Mohr, 2013).” CBSM provides steps to take when engaging a community and structure a pilot; (1) identify the behavior to promote & audience to promote it to, (2) identifying barriers and benefits, (3) develop a strategy.

CBSM STEPS:

1. Identify the behavior to promote & audience to promote it to:

I am looking to promote composting to tenants that live in multifamily housing. The multifamily housing focus group I have worked with are 3 different University of Washington Greek houses. I arrived at the number 3 after considering my time constraint. I chose to gather my information from Greek housing because of their structural and managerial similarities with apartment complexes. With Greek housings communal nature, interacting with the different houses can make identifying barriers, creating change and transitioning tenants to composting much easier.

Literature review. I have compiled literature on the subject of transitioning into sustainable behavior. Using my research on CBSM, I have identified 4 potential barriers to compost in multifamily housing; lack of knowledge, absence of motivation, a non-supportive attitude, and inconvenience.

- **Knowledge.** Individuals don't know about composting because either there is no information in their building, they don't see the information through the various advertising outlets, they don't hear about it through the word of mouth, or the information is not printed in their primary language.
- **Absence of motivation:** Individuals that know about composting but don't remember to compost.
- **Non-supportive attitude:** Individuals don't want to compost because of the smell that attracts pest to waste bins.
- **Inconvenience.** Building does provide a compost bin or located it in a inconvenient location.

Through my research I have compiled solutions for each of these barriers.

- Prompts to educate and remind tenants to compost.
- Provide positive incentives to motivate tenants to act by having them make commitments to the landlord to compost. This would put more positive peer pressure for tenants to participate. Landlords can also offering coupons to a local business to tenants that advocate and promote composting to their neighbors.
- Compromising composting demands by eliminating meat at dairy from the composting bin. These are the main food types that attract pests to bins.
- Utilizing the Seattle Public Utilities multifamily resources that include requesting a composting bin for homes that don't have one, requesting additional or larger compost receptacles, joining the recycling and composting program to receive countertop compost bins.

Each solution would be tailored to the house's particular barriers.

3. Developing a strategic approach to changing behavior

I had created a strategy to collect qualitative data through house surveys, one-on-one interviews with UW Green Greek Representatives and group interviews with house members. I then chose to translate that qualitative data into quantitative data by creating a metrics of the four barrier types (see table below). I am collaborating with Tali Haller, the Director of the Green Greek Representative Program. The Green Greek Representative Program brings a voice to each Greek chapter that collaborate together to make the UW Greek community a more sustainable place. About 30 out of 54 chapters are a part of this program. Tali has connected with these chapters and shared with them my research study. I coordinated with the 3 of the chapters. It should also be clear that my role in this interview is to facilitate conversation to help determine their barriers and what solution would best serve them. I have chosen to take this approach because I have made the assumption that tenants are more likely to make changes that they have recommended for themselves.

ONE – ON – ONE INTERVIEWS

I will be interviewing the Green Greek Representative of the house. These representatives are a part of the Green Greek Representative program that voice environmental matters for and to their house. They are ideal to interview for composting because they coordinate with property management on environmental actions. These actions include energy use and waste management. For instance, Tali worked with her houses property management to identify a base for her house's energy use and tracked its progress. A tool that is useful for identifying what changes are effective. (When interviewing conducting interviews in apartment complexes, it would be ideal to speak to either property management or the person who has been delegated the responsibility for managing waste.)

Qualitative Data

Questions to ask the chapter representatives (or property management):

1. Have you heard about the new composting law?
2. How were you notified?
3. How are the mandates as you as a landlord?
4. Have you faced any challenges with this new mandate?
5. Have you faced any challenges with your tenants?
6. If you haven't faced any challenges what are the methods you used to make this transition?

SURVEY HOUSE MEMBERS

With surveying I asked yes or no questions UW Greek house members prior to the group interview. I have surveyed UW Greek members to collect quantitative data on information about composting, the new law, and benefits that they may or may not know about. This approach was incorporated into my methodology after the first group interview. These questions are less discussion based and can be used to get quantitative data.

Quantitative Data

Yes or No questions to ask UW Greek house members or tenants prior to a group interview.

1. Do you compost?
2. Do you (generally) know what goes into composting?
3. Do you know the environmental benefits of composting?
4. Do you know about Seattle's new composting law?
5. Did you know that your building can get fined if it doesn't compost properly?

6. Did you know that you can get counter top compost bins for free and a \$100 utility bill credit (from Seattle Public Utilities)?
7. Did you know that anyone can request a compost bin for your building (not just your property management)?

GROUP INTERVIEWS

I conducted group interviews with house members (tenants). These interviews varied with scheduling. With fraternity Greek homes, interviews were scheduled in the late afternoon during dinner hours and house members volunteered to join the discussion. With the sorority Greek house, the group interview was scheduled during a regular house meeting where all the house members were present. With the Greek housings communal nature, I had the opportunity to gather high amount of data. During the group interview, I followed a series of guiding questions. These questions were there to keep all group interviews consistent, though all interviews were free-flowing conversations and not strictly structured. This allowed participants to provide input that I had over looked in my research. During the interview I took note of the group's behavior and attitude towards the topic and particular questions. After completing the group interview I organize my information into qualitative and quantitative data, pair it with potential recommendations, and comparing it to other multifamily housing.

Qualitative Data

Guiding conversational questions:

- Who knows about the new composting law? (To anyone who answered yes on the survey)
- Do you know what can go into composting? What are recurring items you throw away that you aren't sure if they are compostable or not?
- How often do you compost? (Regularly, every so often, never)
- What are the big problems your house faces with composting?

- Have you thought about how you will routinely compost when you move out? (For instance, I use paper bags for composting and place it under my sink, people also put it in containers on their countertops or freezers).

Barrier related questions:

- **(Motivation)** what does motivate you? What motivates you to compost?
- **(Convenience)** what do you find inconvenient about composting?
- **(Don't remember)** what methods do you do to help remind you to do an action?
- **(Unsupportive attitude)** What about composting do you not like? What can make it better? What about composting do you not like?

BARRIER METRICS

Quantitative Data

The process of calculating these barriers was plugging in the qualitative data I found from research and from focus group interviews into a key table. This table ranges from low barriers (under 25%) to high barriers (over 75%).

After taking all these steps to collect and process data, I ask myself:

- Have I identified any barriers in this house?
- Can my research provide any direct recommendations for a particular houses barriers?
- Is there a pattern with my qualitative data that can recommend a large scale solution?

KEY

BARRIERS	UNDER 25%	25 - 50%	50 - 75%	OVER 75%
KNOWLEDGE	<ol style="list-style-type: none"> 1. Know about composting 2. Know why it's important to compost 3. Know about city regulations and SPU incentive programs 4. Educational prompts provided above bins 	<ol style="list-style-type: none"> 1. Know all the general information about composting 2. Know general environmental benefits 3. Don't know regulations or SPU programs 4. Educational prompts provided near bins 	<ol style="list-style-type: none"> 1. Aware of compost bins 2. Don't know general composting information or environmental benefits 3. education prompts aren't located in effective areas 	<ol style="list-style-type: none"> 1. Don't know anything about composting or waste distribution 2. There are no education prompts
MOTIVATION	<ol style="list-style-type: none"> 1. Always remember to compost 2. Highly prioritize composting 3. Compost at home and elsewhere 4. Composting is apart of a daily routine 	<ol style="list-style-type: none"> 1. Mostly remember to compost 2. Somewhat prioritize composting 3. Making a habit of composting daily 	<ol style="list-style-type: none"> 1. Rarely remember to compost 2. Barely prioritize composting 3. Don't have a regular habit of composting 	<ol style="list-style-type: none"> 1. Never remember to compost 2. Don't prioritize composting
ATTITUDE	<ol style="list-style-type: none"> 1. Feel strongly that we must compost 2. Local Community supports composting 3. Close peers support composting 	<ol style="list-style-type: none"> 1. Feel like it can be useful to compost 2. Composting is a growing social norm but not yet embedded within the community 	<ol style="list-style-type: none"> 1. Don't feel it is necessary to compost 2. Composting is just starting to be introduced to peers and the community 	<ol style="list-style-type: none"> 1. Unsupportive attitude about compost where you feel it is not a good option 2. Composting is not well practiced among peers or the community
CONVENIENCE	<ol style="list-style-type: none"> 1. Composting is highly accessible 2. far more convenient than waste bins 3. Number and size of bins exceeds the amount of compost 	<ol style="list-style-type: none"> 1. Compost bins are accessible 2. Compost is equally as accessible as waste bins 3. Number and size of bins meets the amount of compost 	<ol style="list-style-type: none"> 1. Low number of compost bins 2. Higher number of waste bins that are more convenient and accessible 3. Small compost bins that don't meet the amount of compost 	<ol style="list-style-type: none"> 1. No way to compost 2. Waste bins are the only option

FINDINGS & ANALYSIS

UW GREEN GREEK REPRESENTATIVE MEETING

I attended the UW Green Greek Representative meeting on April 5th, 2016 held at Sigma Kappa. I met with about 17 representatives and EcoReps Outreach and Communications Coordinator Zan Roman. He's connected to the sustainability office and has been writing two articles a month on the UW Sustainability blog about Greek



sustainability events and other community efforts. At the meeting, I learned about the Greek community dynamic including the difference between a Sustainability chair and a Green Greek Representative. Sustainability chair is more solidified whereas a Green Greek representative is voluntary. Some don't have a sustainability chair and use join the Green Greek Representative program to bring sustainability a voice. Different house representatives shared their current projects, struggles and ideas. Recycling is the main accomplishment for most representatives. However, all representatives receive a lot of push back from their house members. Representatives have a struggle with making change due mainly to house members' poor attitude. They've expressed that education hasn't really helped to creating action and that a lot of enforcement is needed. Some ideas different representatives had shared about improving participation include supplying less paper cups to reduce waste. Because the house chief aren't around on the weekends, many house members switch to plastic utensils and paper cups to avoid cleaning dishes. Another idea was to give presentations and demonstrations on different practices such as how to sort waste.

PSI UPSILON

HOUSE RECOGNITION

At Psi Upsilon there is one composting bin inside the house located in their kitchen and two 96 gallon bins outside the house. Even with limited access to compost bins their house values and

BARRIERS	UNDER 25%	25 - 50%	50 - 75%	OVER 75%
KNOWLEDGE				
MOTIVATION				
ATTITUDE				
CONVENIENCE				



structure has resulted in a high level of compost participation. The large issue that this fraternity is facing is having their outdoor compost bin overflow. When tenants see that the bin has reached its maximum limit then they start throwing their compost in the trash.

ONE - ON - ONE INTERVIEW

I met with Green Greek Representative Cameron Blecha on March 3rd, 2016. He recently learned about the new composting law through “word of mouth” from people within the house. He has made strides to educate his house members on how to compost.

GROUP INTERVIEW

I conducted a group interview with 11 Psi Upsilon on March 10th, 2016.

Knowledge

Other than their Green Greek Representative, no members in the group interview were aware of the new composting law or the fines. However, they have taken notice of the new compost bin in many facilities and business and were aware that composting has become a local priority. They learned about composting through “word of mouth” from people within the house or through visual prompts on compost bins. They know that food and napkins goes into compost bin, though have further questions about what is allowed in the compost bin and what isn’t.

Motivation

Members consistently compost every meal because the kitchen set up makes it very convenient. They eat in the dining room or kitchen area where the compost bin is conveniently located. The house chef installs strict rules on food waste in the house. This along with peers' opinions puts pressure and a fear of being shamed on house members.

Attitude

Many members feel indifferent about composting. They don't compost for any other reason than that they are asked to by their chef or house members. However, members that participated in the group interview felt it was very important to improve the houses overall composting practice.

Convenience

Members consistently compost every meal because the kitchen set up makes it very convenient. Though there is only one composting bin in the house that is located in the kitchen, the house is still efficient at composting because members only eat in the dining room and kitchen area. The large issue that this fraternity is facing is that their outdoor compost bin overflows. When tenants see that the bin has reached its maximum limit then they start throwing their compost in the trash.

REFLECTION

Psi Upsilon fraternity house was by far the most enthusiastic to talk about composting. There was a good turnout of volunteers for the group interview and they all provided great input on what their motives are for composting such that it conveniently fits into their schedule and chores. Taking out the compost was a shared responsibility that was rotated between members. Their biggest struggle is that their two compost bins outside the house were overflowing so members start to throw the compost in the trash. A theory I have is that they actually are making more food than they eat. I would encourage reducing the amount of food cooked and encouraging saving leftovers. They could also possibly be throwing away all their trash into the compost to save time. In that case they would benefit from

educational prompts that remind them what waste goes where. After the group interview, I decided to add a survey to my methodology. I realized that I had some non-discussion questions that could be quickly answered in a survey. Adding a survey helped provide a better visual for the other Greek houses on how much members knew about composting in Seattle.

SIGMA KAPPA

HOUSE RECOGNITION

The Sigma Kappa sorority has made exceptional efforts to be more sustainable. Their house is one of the first chapters to establish a Sustainability Chair house position.



ONE - ON - ONE INTERVIEW

On March 27th, 2016 I met with Sigma Kappa’s Green Greek Representative and Sustainability Chair Tali Haller. Tali Haller is also the founder of the Green Greek Representative program. Her role at her sorority is to educate chapter members on sustainable lifestyles, encourage sustainable habits, and install sustainable infrastructure such as LED light bulbs, educational and instructional signage, and compost and recycle bins. Tali coordinates with property management on environmental actions. These actions include energy use and waste management. With energy use, she identified a base for her house's energy use and tracked its progress.

GROUP INTERVIEW

I conducted a group interview with all Sigma Kappa house members on April 4th, 2016 during a house meeting.

Knowledge

Members are very well aware of compost and what goes into composting. There are prompts by every compost bin.

Motivation

Members are motivated by their peers' opinions.

Members correct one another when they improperly compost and it provides positive peer pressure. For example, many members throw all their trash into the compost bin not just their compostable goods because it is the most convenient bin on the second floor.

Attitude

Members are throw all their trash into the compost bin not just their compostable goods even though they are aware which bin is compost and what goes into the compost bin. Sorority members who live out of the house in apartment complexes mentioned that they compost less at their apartment than they did at the house because of odor.

Convenience

The house is very convenient when it comes to composting, there is a compost bin in many of the main rooms and they are clearly labeled with prompts to explain what goes into that bin.

Survey Questions	Percentage that answer yes
Do you compost?	93.1%
Do you (generally) know what goes into composting?	93.1%
Do you know the environmental benefits of composting?	89.7%
Do you know about Seattle's new composting law?	55.2%
Did you know that your building can get fined if it doesn't compost properly?	86.2%
Did you know that you can get counter top compost bins for free and a \$100 utility bill credit (from Seattle Public Utilities)?	20.7%
Did you know that anyone can request a compost bin for your building (not just your property management)?	37.9%

REFLECTION

I was scheduled to do a group interview during a house meeting. It didn't get that same opportunity to see how many would have volunteered to be a part of the discussion. Tali also mentioned after the group interview that people weren't giving an honest portrayal of how they compost. There

barrier was a mix of attitude and motivation because they were throw all their trash into the compost bin not just their compostable goods. This suggests that there isn't strong community or peer support around composting and perhaps they aren't using positive peer pressure to encourage their house mates to properly compost. One theory is that when composting became a big priority by their sustainability leader, house members decided that rather than go through the process of sorting trash they would go straight to fully transitioning to composting all their trash (including non-compost items). Useful tools for this house to explore is establishing social norms and community support around composting. I see this house having large improvements with composting if members showed a more public display of support in a way that doesn't necessarily pressure members to compost but rather encourage them to mimic their peers.

SIGMA ALPHA EPSILON

HOUSE RECOGNITION

The ΣAE fraternity has made a huge stride in going green by adopting the Sustainable Chair house position. Those who serving on this chair take on the responsibilities of:



- Maintaining the grounds of the fraternity property and disposing of any compost products
- Maintaining a main compost receptacle and compost disposal systems throughout the property
- Working with the house manager and custodial chair to buy or implement more eco-friendly alternatives to house supplies and necessary functions (i.e. compostable utensils, hand towels)
- Collaborating with the active Community Service Chairman to coordinate “green” service events

ONE – ON – ONE INTERVIEW

I interviewed with Green Greek Representative and former Sustainability Chair Danny Maier on March 30th, 2016. He heard about the composting law from Green Greek Representative founder Tali. Danny grew up in California and wasn't aware of composting till he moved here. When he got to UW he was highly motivated to get involved with sustainability work. His house is currently facing many barriers with composting. Recently, He had his house switch to compostable utensils from plastic utensils. Currently, SAE has only two compost bins in the kitchen and Danny is working on getting a compost bin for the main bathroom.

House members are mostly unmotivated to compost. Those that aren't from around the Seattle area are probably more unsupportive of composting.

GROUP INTERVIEW

I conducted a group interview with 5 SAE house members on March 30th, 2016.

Knowledge

The majority of house members knew about composting and some were aware of the composting law. They learned through “word of mouth” or from seeing compost bins. The main compost material they know about is food, utensils, and napkins. The methods that help remind them to compost was to see the compost bin. Having a bright green bin be the first thing they saw when entering the kitchen acted as a strong reminder. A barrier to some members is not knowing if their utensils are compostable.

Survey Questions	Percentage that answer yes
Do you compost?	78.1%
Do you (generally) know what goes into composting?	87.5%
Do you know the environmental benefits of composting?	78.1%
Do you know about Seattle's new composting law?	18.8%
Did you know that your building can get fined if it doesn't compost properly?	37.5%
Did you know that you can get counter top compost bins for free and a \$100 utility bill credit (from Seattle Public Utilities)?	9.4%
Did you know that anyone can request a compost bin for your building (not just your property management)?	18.8%

Motivated

The handful of house members in the group interview were motivated to compost because they are interested in helping the environment and being more sustainable. Many other house members don't prioritize composting. They would more likely make it a priority if it was made more convenient and was incorporated into their current schedule and chores.

Attitude

There are many house members who are aware of composting, though they don't feel the need to compost or don't want to take the time to compost.

Convenient

Many compost regularly at dinner time because the compost bins are conveniently located in the kitchen. What interferes with that convenience is the large number of trash cans that are also located in the kitchen that enable people to throw compost in the trash bins. This especially acts as a bad enabler when house members eat in their rooms. It is far more convenient to throw food away in their rooms trash bin then go all the way downstairs to the kitchen. There are small trashcans in rooms, and big trash cans in hallways and main rooms.

REFLECTION

The Sigma Alpha Epsilon fraternity house was similar to Psi Upsilon in that for our group interview house members volunteered to be a part of the group discussion. There was about 5 members total for this discussion. I later learned that this was because fraternities are more autonomous and are more flexibility with scheduling. This house in particular faced many barriers. One of these barriers included attitude. A way to encourage a better attitude about composting and to make composting more convenient for members would be to compromise on what goods to compost such as raw fruit and vegetables. This focus would be an easier message to get across and a easier way to establish good sustainable habits within the house.

COMPARE BETWEEN GREEK HOMES

Overall I found that knowledge was a medium barrier of 50%, Motivation and attitude were the highest barriers of 67% and convenience was a medium barrier of 50%.

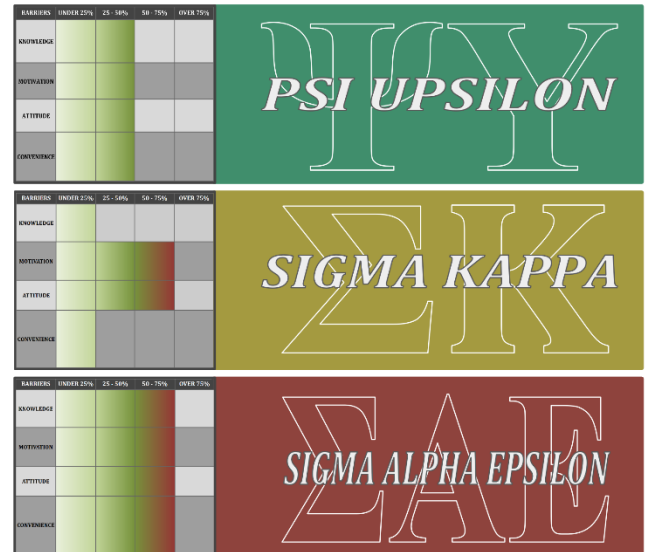
When comparing Greek houses, I found that one houses low barriers and best practices could potentially help improve houses with high barriers. In this case Psi

Upsilon has the lowest barriers out of the three houses in regards to motivation and attitude and appeared to have the highest composting participation. Note here you can see how each house compares. When I reflect back on the high barriers of motivation and attitude with Sigma Kappa and Sigma Alpha Epsilon I think on what worked for PSI Upsilon.

- Their Green Greek Representative received less push back on his green initiatives. There was a great support given by the house members to their Green Greek Representative who encouraged people to participate in his initiatives.
- There were strict rules in the house for eating set by their kitchen staff.
- There was an organized schedule of who took out the compost.

Sigma Kappa sorority had the lowest barriers for knowledge and convenience compared to the two fraternities. There were easily accessible compost bins with prompts to help remind and educate house members. However, their Green Greek Representative experienced a lot of push back.

This type of aggressive push back was also present in another sorority I tried to coordinate with. Their Green Greek Representative mentioned an unsupportive attitude barrier not necessarily against composting but against taking instruction from the representative. I believe psi upsilon did so well with



composting because of the house members had high respect for their green representative. They composted because they wanted to support their friend. What this could be telling us that who the message is coming from can determine how the message will be received. Is it more effective to receive instructions from a peer or an authority figure or does it just perhaps depend on the audience?

MOTIVATION

Some of the motivating messages and perceptions that I found to be effective in creating action in Greek housing includes

- **Structure and order.** Establishing composting practices into an existing routine.
- **Reduce waste.** Promoting the environmental benefits of reducing waste from landfills and reusing compost goods makes people feel better about throwing away excess food.
- **Culture and local ethics.** Educating on current social norms in the region by showing how much the local community supports composting practices and why. They are also more likely to abide when educated on negative incentives of the municipal waste laws.
- **Peers opinions.** Creating a positive environment around composting within your house.
- **Incentives and rewards and acknowledgement.** Pairing composting practices with other priorities to help encourage members to participate.
- **Helping the environment.** Offer composting as an option to those who are driven by helping the environment are looking for more direction on how to make their actions matter.

Please note that though these barriers on average are very high they do not reflect all house members. These measurements are based on houses with 70 or more members. Each house I coordinated with had members that were incredibly passionate and dedicated to making their home more sustainable.

MOVING FORWARD

I've developed a list of recommendations for UW Greek housing moving forward. Some of these recommendations are my own ideas and some echo the recommendations that were shared with me during the Green Greek Representative meeting, the one-on-one interviews and the group interviews.

- Reducing the amount of enabling resources that result in a high amount of waste. This includes paper cups, plastic utensils. This also includes the number of landfill bins.
- For sororities, bringing in house mothers into the mix to help send the message on sustainability.
- Simple visual imagery that acts as an encouraging reminder to compost.
- Have group conversations within the house on composting by shaping it around one of the many motivating themes.
- Integrate composting management into the current house schedule and delegate someone to be in charge.
- Utilizing Seattle Public Utilities multifamily resources.
- Compromise on times to compost. For example, have house members composting during breakfast, lunch, and dinner to establish habits and social norms within the house.
- Shape messaging on the positive progress the house has made and next step/house goal.

Utilizing Seattle Public Utilities Resources

Recommendations for overflowing outdoor compost bins

- If you have a 64 gallon cart size, you can exchange it for a 94 gallon cart size for just \$10 more.
- If you already have a 94 gallon cart size, you can order an additional cart or you can request additional pickups at additional cost. All carts used primarily for food waste include compostable liners which the service provider driver will insert every week at no additional cost.

- To make any service requests, house members can call (206) 684-7665 (this includes adjusting the cart size, missed collection, requesting compostable liner bags, change in service, etc.).

Joining The Friend of Recycling and Composting (FORC) program to access resources and support

Because UW Greek housing is a multifamily dwelling, member of the house can join their fraternity or sorority with the Friend of Recycling and Composting (FORC) program. UW Greek Representatives or Sustainability Chairs can lead this initiative. However, a house manager, facilities staff, or resident who is on the property at least once a week can sign up as your property's [FORC steward](#). The Benefits include:

- a one-time \$100 utility bill credit
- free educational prompts
- free trainings to help improve recycling and composting at multi-family buildings
- free countertop compost bins for those who participate in the training

UW Greek house members are likely to move into Seattle multifamily housing and they can stay connected with the FORC program and act as representatives in multifamily housing to make sure their housing is providing the right resources to their tenants.



COMPARE TO OTHER MULTIFAMILY HOUSING

SIMILARITIES

During the ordinance all multifamily faced getting infractions for improperly composting they received \$50 fines per waste bin including UW Greek housing. Recently, Seattle's composting fines were blocked by the King County Superior Court. Even without fines to incentive composting, all multifamily housing still faces to barrier of creating collective participation. Greek housing is similar to apartment complexes in that there have both private space and well as shared space.

DIFFERENCE

There are quite a few differences between Greek housing and traditional multifamily housing. With the Greek housing's communal nature, I had the opportunity to gather high amount of data that I wouldn't have easily been able to gain from other multifamily housing. Other multifamily typically doesn't have that communal nature and there is less opportunity for creating collective participation. A close bonded community makes it easier to spread a positive message on composting and create a positive environment. UW Greek housing also has more resources available to them such as a weekday kitchen staff.

To help bridge that difference gap, I asked UW Greek home members during the group interview where they plan on living after graduation? What their plan on doing for composting? Do they feel it will it be easier or harder to compost after graduation when they move out of Greek housing?

MOVING FORWARD

The motivating solutions found in UW Greek housing can also help other multifamily housing. Many multifamily dwellings have established value's such as no smoking and keeping the shared space clean. Property management and landlords can incorporate composting into their housing values. They can initiate this to incoming residents and start a routine with current residents.

In regarding to identifying the main barriers within the home, property management that owns more than one multifamily housing property can use this metrics tool to compare psychological barriers among their properties. Property management that only own one multifamily housing can potentially submit their analysis to Seattle Public Utilities and have them compare their property to other multifamily housing in the neighborhood. In the scenario where someone would want to use my methodology and collect data from tenants in apartments, group interviews wouldn't be easy to coordinate. A better alternative would be to survey tenants by the apartment entrance and having short interactions.

CONCLUSION

I would conclude that I did find ways to potentially help improve multifamily housing participation with composting. Through engaging members within the house and identifying barriers and motivating factors, outcomes to behavior change can be much better than an informative-based platform. The researcher suggests sustainable interventions for low and high barriers in multifamily housing. Implications of this research include potential to increase compost participation by informing outreach programs in non-traditional housing. This approach and metrics key that I have created can be seen as a living document that be added to and improved on as we continue to learn more about what the barriers to change look like. Though I focused in multifamily housing, this research can apply to Seattle business



and single family dwelling. Recently, Seattle's composting fines were blocked by the King County Superior Court because single family homeowners argued that the Seattle ordinance that allowed garbage collectors snoop through residents' trash in search of food was a breach of residents' privacy. With the recent block on Seattle

composting ordinance, Seattle Public Utilities will look to find ways to recreate positive perception of composting among single family residents. This approach can be a useful tool for all Seattle Public Utilities work ahead.

I would further conclude that my work showed how much opportunity there is in Greek Housing to create change. There is the opportunity to train the incoming generation of multifamily housing tenants and install composting values. UW Greek house members are also potential sustainability leaders that can stay connected with the FORC program and act as representatives in multifamily housing to make sure their housing is providing the right resources to their tenants.

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