

Final Research Proposal

SOCY11: Research Methods

Tackling Upper Valley Food Insecurity: Evaluating Willing Hands' Distribution of Resources

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Project Team

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Recent research in the topic of food insecurity demonstrates the influence and effect of food assistance programs, individual's socioeconomic status, and the rurality of their surroundings. Studies of geographical location and proximity to food sources such as grocery stores, food shelves, and food shelters define the boundary of these rural areas and their status as 'food deserts.' Specifically, studies of poverty and access to food within New Hampshire reveal that within Grafton County, a significant portion of the Upper Valley, "19-30% of the population within towns are 200% below the federal poverty line" (Carson 2019). Moreover, maps of New Hampshire highlight the need for more accessible food sources in the Upper Valley, as Southern New Hampshire appears to have a plethora of convenience stores, non-traditional food outlets, and specialty fresh food outlets, whereas Grafton county appears to have less retail food sources available for residents (Carson 2019). Nevertheless, the rurality of the Upper Valley, which includes aspects like geography, infrastructure, and socioeconomic inequality, continues to perpetuate food insecurity in the area, plaguing residents that can't afford nutritious groceries, or even worse, can't afford any food at all. Current discussions surrounding food insecurity are largely focused on the intersectionality between it and poverty, but sometimes fails to factor in that many Upper Valley individuals live in a food desert, which consequently restricts their ability to address their own food needs. How can specific organizations, such as Willing Hands of Norwich, VT, respond to this issue; given the scope of these programs, is accounting for all of these factors even possible or worthwhile in the context of their own individual goals?

Reviewing the literature surrounding food insecurity to further establish research motivation, the most general theme that initially emerged was how marginalized groups, specifically those of low socioeconomic status, are disproportionately worse off with regard to how the food they consumed is produced (McIntosh 1). Recent changes in the food industry regarding food production have led to empirical problems in food and nutrition; the sector's goal has switched to mass manufacturing 'maximum profit' foods by lowering overall production costs (McIntosh 1-2). The shortcuts they take largely sacrifice nutrition, forcing these marginalized groups into an ultimatum: suffer the health consequences of consuming highly processed, innutritious food, or go hungry (McIntosh 1-2).

When discussing implications on food insecurity, food production is only one particular subsection of the food industry's infrastructure. In fact, these same marginalized groups often are disproportionately worse off regarding proximity to food transportation routes and the ability to acquire food as well (Wright 172-173; Morton 94-94, 103). The term "food deserts" is usually applied in this context, referring to specific places, commonly very urban or very rural, where food resources are especially sparse due to the lack of established food infrastructure (Wright 172-173). Focusing on rural food deserts, the lack of transportation methods is widely perceived throughout the literature as one of the biggest issues (Morton 94-95). Owning a car has become a necessity, and consequently, a barrier to purchasing nutritious food, as a car is required to overcome the distance to the nearest large grocery store (Morton 103). Furthermore, smaller 'mom and pop' grocery stores, which used to reside between large groceries stores and carry more fresh produce and nutritious foods, have been put out of business for not taking the aforementioned "nutrition-sacrificing shortcuts," exacerbating the issue; as a result, those without reliable transportation sources in rural areas are forced to turn to more convenient options, like fast food or chain convenience stores, instead (Morton 103). And so, living in a food desert means constantly having to worry about food insecurity, consumption practices, and health issues. (Rodriguez 178). Tackling the existence of a food desert environment itself and its subsequent causes instead of trying to solve hunger directly, therefore, should be the main approach to solving the issue (Rodriguez 172). In researching the Upper Valley specifically, this means evaluating one of its defining characteristics— its rurality.

Rurality, a primary contributor to food deserts, exacerbates food insecurity for the already marginalized people experiencing it (Dowler 44-45). Because the availability of financial resources and food security status of rural low-income households are correlated, “food poverty,” the accessibility of food quality or quantity especially due to one’s environment, can be seen as its own individual concept (Dowler 44-45; Olson 1-5). One can actually be relatively financially well off, but because of their rural surroundings and the lack of access to healthy food options, still experience food poverty (Olson 1-5). For those who are marginalized, this also means that food poverty and other forms of poverty can actually *compound*, further affecting their nutrition, health, and quality of life (Dowler 44-45).

In response to these issues, especially to alleviate the burden off of those experiencing the compounding effects of food poverty, many different food assistance programs have been implemented; however, while these programs have been studied to correlate with less food insecurity, their efficiency is very often inhibited by several fundamental, underlying issues (Gunderson 292-293; De Souza 47; Ratcliffe 1082-1084). One popular program, SNAP (Supplemental Nutrition Assistance Program), focuses on providing food stamps to those who are food insecure (Gunderson 292-293). According to those who have used SNAP, however, its specific downfall is the lack of addressing its common stigmas and logistical issues, such as being “perceived as distasteful,” requiring users to travel to the physical office, or failing to optimize its eligibility requirements (Ratcliffe 1082-1084). In fact, these same issues and stigmas often apply to food pantries and food assistance programs in general, causing the overall problem to be depicted as “individual” rather than “structural” (De Souza 47). Consequently, this has allowed the government to discount any responsibility of a permanent solution, instead relying on efficient food assistance services to solve the issue (De Souza 47).

Until major legislative changes permanently address food insecurity in rural areas, the burden is on these food assistance programs, like Willing Hands, to efficiently connect food insecure people with food resources (De Souza 47; Ryan-O’Flaherty 1-2). After a careful evaluation of the literature, which ultimately fails in detailing how food assistance programs should streamline their services to specifically address rurality and food infrastructure inequality, this leads to the current gap in knowledge. As it stands, there are no proposed methods or protocols for a program, such as Willing Hands, to optimize their food distribution services while accounting for factors like access to transportation, socioeconomic status, internet access, or other consequences of rurality. How, if at all, might this solution elucidate the relationship between food insecurity and rurality in the Upper Valley, especially in terms of food production, transportation, and distribution?

Again, while there currently isn’t any literature discussing these topics, our proposed research question intends to begin finding a solution: to what extent does Willing Hands’ services address the effect of rurality on food insecurity in the Upper Valley? By developing a detailed research model for Willing Hands and taking into account requests from the rural recipient organizations themselves, a general method can be established and potentially utilized by similar organizations around other rural parts of the United States in order to optimize their own responses to rural food insecurity, beginning to fill that current gap in the literature. Furthermore, the study will allow for more holistic consideration of rurality when supporting individuals within the Upper Valley, as will be discussed later. As far as the contributions to Willing Hands specifically, the study’s design also will take into account the organization’s desired research focus as well. Currently, their mission impact department is trying to evaluate how the fresh produce that Willing Hands provides is perceived by recipient organizations and their clients; for instance, is the produce actually seen as an extra nutritious option, or is it lumped with other food options as simply ‘sustenance/calories?’ Moreover, another topic currently being investigated is if there are any other resources that recipient organizations wished

Willing Hands' provided, such as cutting produce for ease of consumption (Ryan-O'Flaherty 6-7). In carefully choosing an effective research design, these questions and the overall gap in the literature both can be addressed simultaneously.

Willing Hands would benefit most from using a qualitative method. We recommend an online survey-based experiment such as Google Forms because it is a platform that can easily be accessed by all partner organizations, the results automatically are placed into Google Sheets and are more organized, and this is the most time efficient method. The disadvantages of this chosen method is the partner organizations being unable to articulate their thoughts or opinions on a question that is not open-ended, and it might not accurately represent the correct answer. For the purposes of this study, we would plan to do a cross-sectional experiment/survey – since we are mainly interested in the way that Willing Hands is able to address the issue of rurality on food insecurity at this point in time – not necessarily over time.

Within our conceptual model, we seek to demonstrate the relationship between food insecurity, rurality, and Willing Hands. Our first box labeled *Food Insecurity* connects to our second box within the conceptual model, *Sources/Causes of Food Insecurity in Rural Areas*. The second box is connected to our final box, *Willing Hands Services*. The final box *Willing Hands* is then connected to *Food Insecurity*. This is rationalized as food insecurity is responsible for and causes the food insecurity that occurs specifically in rural communities. Willing Hands seeks to address this issue and mitigate food insecurity as a whole, while also attempting to resolve the issue of what specifically causes food insecurity in rural areas. Our independent variable is food insecurity, our dependent variable is the causes of food insecurity – specifically the infrastructure of the food system within the Upper Valley and the accessibility to food sources that has been continuously perpetuated, and our mediating variable is Willing Hands services. Our chosen measures relate to the conceptual definitions presented in the literature because they acknowledge the structural issue of food insecurity and how it is perpetuated further in rural communities. Using a survey to gain a deeper understanding of the inner workings of the partner organizations will allow Willing Hands to address some of these structural issues. We recommend operationalizing each variable through recognizing their main indicators. Willing Hands is operationalized through their services, which consist of picking up food from food donors, volunteers gleaning leftover produce from local farms while also growing produce in gardens Willing Hands own, and finally Willing Hands deliver this food to recipient organizations to then redistribute to people in need. Sources and Causes of food insecurity is operationalized through identifying what its indicators are, and we came to the conclusion that transportation, geographical proximity to food sources, and socio-economic status were the largest indicators of the impact that rurality has on food insecurity and distribution within the Upper Valley.

For our study procedure, we recommend that Willing Hands creates a Google Forms that consists of the survey questions/answers that we created. Then they would reach out to all partner organizations via email, with the survey linked in that email. After a week, they could send a follow up email to ensure they receive the maximum possible number of responses. Each survey response should take no longer than about 20 minutes to complete. Since this study is only based on a survey and the response from partner organizations, there are no field observations necessary. If Willing Hands desires to gain an inside view of their partner organizations, we would recommend a bi-annual or annual visit to each partner organizations – since there are 85 and this is a timely endeavor. With existing data, Willing Hands created a survey report, which consisted of a collection of praise from partner organizations, a section regarding client data and demographics, data about their deliveries and the types of food they are delivering, food sourcing and disposal, food access and use, and a VCG section. Through this they were able to recognize areas in which they were doing well, but were also able to

Description of causal order is reversed; see comments on diagram of conceptual model

acknowledge areas of their outreach that needed improvement. Through our study we would hope for a similar effect, and to prepare the data we would count the partner responses and create data that is applicable to the survey questions we created. For archival research, we recommend looking at previous survey reports from Willing Hands, specifically questions that are perhaps similar to the questions we are asking, if the organization's growth or regression over time is questioned.

For sampling and recruitment, we plan to conduct surveys for the recipient organizations, i.e., the partners Willing Hands works with to distribute food. We plan to use non-probability sampling because we have a set/known number of participants and we want to be able to survey as many as possible. We are using purposive sampling, which means using our judgment to pick out our sample. Our judgment (with knowledge from Katie from Willing Hands) is to sample all the partner organizations to get replies back from a little more than half. We wouldn't want to use random sampling because we know exactly who we want to survey. Purposive sampling is the best way to go about it because we know our sample and target population. For example, snowball sampling would not be a good choice because we don't want to be introduced to new relationships of recipient organizations; we want to work with the direct partners of willing hands. Because Willing Hands already has the knowledge of all the partners they work with, we will use that exhaustive list to contact our participants. Though we have the connection, we have no means to guarantee that they will respond; thus, we hope to reach out many times for reminders and encouragement. We hope to acquire their interest by saying that this survey will not only help Willing Hands better serve their beneficiaries, but also the partner organizations to understand what everyone as a whole can improve upon to better their services. We hope to appeal to their ethical, moral, and emotional side in terms of receiving survey responses.

Our research question was "to what extent does Willing Hands' services address the effect of rurality on food insecurity in the Upper Valley"? To this end, our survey data offers insight into the effectiveness of the distribution of Willing Hands resources and how they benefit their recipient sites and subsequent recipient individuals. Though our data is qualitative, it offers an overview of their partner organizations' attitudes toward Willing Hands. The questions on the survey can be split into two parts. The first half of the survey explores the relationship between Willing Hands and the organization. This data can be used to create what is essentially a profile for each partner organization that identifies if their specific needs are being met and what Willing Hands can do to further improve their service. Themes that can be identified from this data include: whether the organization receives an excess or not enough food from Willing Hands, overall feedback on Willing Hands' impact, and whether they are satisfied with the quality of the produce they receive. The first theme can be coded as satisfactory amounts of food or insufficient amounts of food and the third theme can be coded as satisfied with the quality or not. From the first theme's data, Willing Hands can re-assess the distribution of their resources when it comes to delivering food. The third theme's data offers insight to managing their warehouses and quality control of the gleaned produce. All of the data can be used to evaluate if they are allocating their time, effort, and money correctly. The second half of the data is targeted to answer their current primary concern: whether Willing Hands' produce is increasing the pure caloric intake of their beneficiaries, if it is increasing the overall health of the food their beneficiaries are eating, or if both outcomes are occurring. This section has two themes, the first identifies if the recipient organizations have other food sources and what they are. The second is to see if Willing Hands' beneficiaries are choosing the produce or other food. From this, Willing Hands can see if their beneficiaries are actively choosing produce over other options, thus improving nutrition, or if their produce is the only option, thus improving caloric intake.

At numerous points throughout history, research has been done that has significantly harmed the participants. Thus, the Belmont Report, established by the National Commission for

Only purposive sampling if you are selecting partners with specific features you think would affect responses to your survey. If you're asking all members of your target population to participate you aren't drawing a sample.

Surveys are primarily a quantitative method (only open-ended text produces qualitative data when using this method).

the Protection of Human Subjects of Biomedical and Behavioral Research in 1974, lists three primary principles to protect human subjects in research.

The first principle is the right of persons, which states that participants should always maintain their right to autonomy, and that the researcher takes extra precaution for those participants who have vulnerable statuses. In our research, we remained cognizant of the fact that those who suffer from food insecurity could qualify as a vulnerable person because of this status, which is why we decided to survey the organizations Willing Hands serves, instead of the individual people. Although this causes us to miss the perspective of the people who benefit directly from the resources, we felt this was necessary to avoid any issues of individuals feeling embarrassed due to being food insecure. Additionally, because we will survey the organizations, this greatly reduces risk in primarily two ways. First, the survey we administer will remain anonymous, with no demographic or other identifiable information asked, and second, all questions in the survey will technically not be required, and if the organization so chooses, they do not have to answer the questions for whatever reason.

The second ethical principle listed in the Belmont Report is beneficence. This principle states that the researcher should protect participants from harm, respect participants decisions, and secure participants well-being. As stated earlier, there is little risk of harm to be done to the organizations due to the survey being anonymous and the questions not being mandatory. Also, the research will contribute to the goal of the organizations to improve access to food depending on the results of the research. For example, if it is found that the distribution of Willing Hand's resources should be expanded, the organizations may benefit directly from this expansion, or in general, the Upper Valley will have improved distribution of food and tackle food insecurity more effectively.

The final ethical principle is that of justice which stipulates that the research subject should be the one to benefit from the research and that no unnecessary burden should be placed on the participants. To ensure our compliance to this principle, we emphasize that the survey will only take 15-20 minutes to complete, and that since the answers are anonymous, no answers will impact the organization's relationship and access to resources with Willing Hands. It is unclear whether the benefits of the research will be directly felt by the organizations, however, if the opportunity arises to improve distribution of resources to the current organizations, it will be done. We do not expect that many ethical problems will arise, however, if they do, there is contact information for the organization to get in touch with if they wish to drop out of the research in our consent form. However, this research will take all of the necessary precautions to respect the participants rights to privacy, shelter them from harm, and allow them to benefit from the research.

We have determined that this research design is very feasible for Willing Hands to administer. In our past conversation with Katie Ryan-O'Flaherty we learned that Willing Hands has administered surveys to their organizations before, and in their last survey, have retained about a 66% response rate. Our method of administering the survey (email) is the primary way Willing Hands communicates with their organizations. Additionally, to get a greater survey response rate, we will encourage participation in person through a person who delivers to the organization reminding them to take the time to fill out the survey during these trips. Additionally, Willing Hands does have experience analyzing survey data, which will be useful in getting answers to the research question. Finally, though the information collected for this research could be greatly beneficial in combating food insecurity, it is not urgent that the information be collected. This gives the organizations more time to respond to the survey, and Willing Hands more time to analyze the data. In sum, this research design is feasible for Willing Hands given their resources and knowledge, especially as it follows a survey format that the organization has had experience with in the past.

Appendix

 Consent Form 03/12.docx

Document 1: Consent Form

Document 2: Survey Instructions, Questions, and Possible Options

For each question, please choose the response that best represents the opinions of your organization as a whole. Each question is optional; if you feel it does not apply to your organization or especially uncomfortable topics, do not feel pressured to answer that specific question.

(To evaluate how/if each recipient organization collects client data, and how they record numbers of people that visit the site. These questions are added to fit the standard Willing Hands has for all of its surveys.)

1. Does your organization collect client data?
 - a. Options: Yes or No
2. How does your organization record numbers of people who visit your site?
 - a. Options: Weekly, monthly, daily, or annually
3. Are clients grouped by unique visitors, unique households, or other? If neither, please quickly explain how they are grouped.
 - a. Options: Unique Visitors, Unique Households, or Neither (explain)

(General survey questions to address the current gap in knowledge and assess Willing Hands' distribution of resources.)

1. Willing Hands' deliveries significantly contribute to our organization's available food resources.
 - a. Options: always, usually, sometimes, infrequently, or never true
2. Do you believe Willing Hands adequately disperses its resources to food-insecure individuals living in rural areas of the Upper Valley?
 - a. Open-ended
3. The inability to utilize or cut produce is one of the main factors discouraging clients from taking produce provided by Willing Hands.
 - a. Options: Yes or No
4. What do you suggest Willing Hands do to further improve the accessibility of resources to those in need?
 - a. Open-ended
5. Before each delivery, how confident are you that the produce delivered by Willing Hands will be of satisfactory quality?
 - a. From 1 (Completely Unconfident) - 10 (Complete Confidence)
6. Our organization receives enough donated food from each Willing Hands delivery to

support every food-insecure person utilizing our services.

- a. Options: always, usually, sometimes, infrequently, or never true
7. If at all, how many days after a Willing Hands delivery does your organization run out of produce?
 - a. Options: Provide a number of days. N/A if the organization doesn't run out of food.

(To answer the question: is Willing Hands' provided produce contributing to 'more calories' overall, providing healthier and more nutritious food overall, or both?)

1. Does your organization receive food donations from other sources?
 - a. Options: Yes or No
2. If applicable, what kind of food do those other sources provide?
 - a. Options: Open-ended
3. Willing Hands' produce is the only fresh produce that clients have access to at our organization.
 - a. Options: Yes or No
4. If applicable, not including Willing Hands' produce, what options for fresh or health-conscious food do those who receive food from your organization have?
 - a. Options: Open-ended
5. If both fresh produce and non-perishable/canned food are available to clients, your organization's clients will choose fresh produce over other options.
 - a. Options: always, usually, sometimes, infrequently, or never true

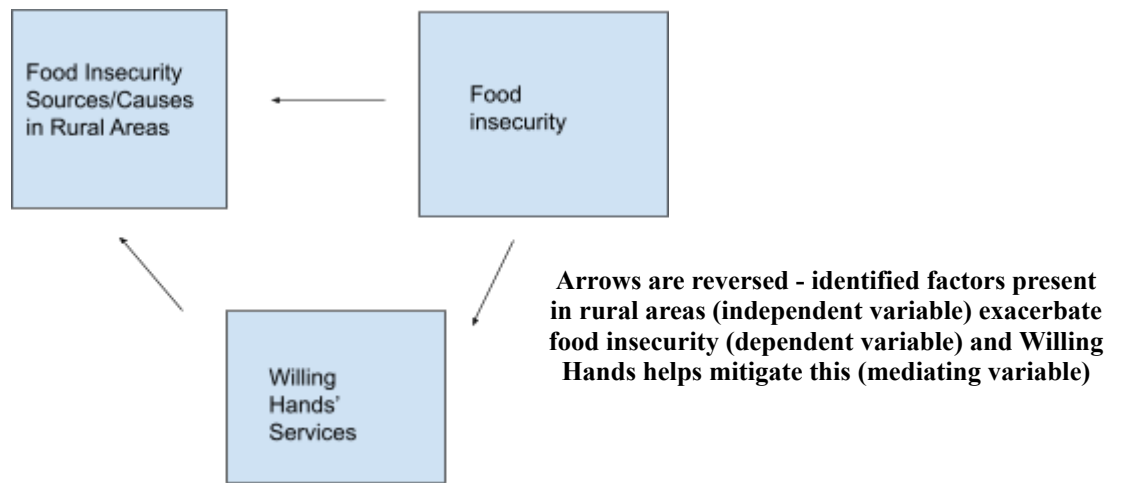


Figure 1: Research Question Model

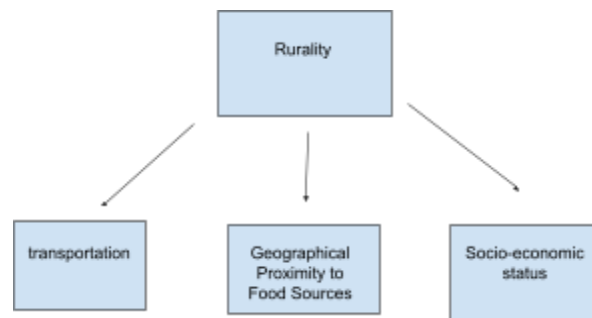


Figure 2: Subdivisions of food insecurity's rural causes

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