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Analytical Variables Leading to the Involvement of Consumers and Farmers in Sustainable Urban Agriculture in the Indianapolis Region

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Analytical Variables Leading to the Involvement of Consumers and Farmers in Sustainable Urban Agriculture in the Indianapolis Region

200,000 people living in Indianapolis have low food access, most of whom live in low-income areas. One solution to these food deserts is sustainable urban agriculture. I investigated what factors bring people living in the Indianapolis region to become involved in sustainable agriculture in the hopes of increasing future involvement. To do this, I conducted 12 semi-structured interviews with 6 farmers and 6 consumers across the Indianapolis region. I used Vermeir and Verbeke's analytical categories of values, social norms, certainty, perceived availability, and perceived influence. Through my interviews, however, I found my own variables of sense of identity, accessibility, health, and community. This change I found I have attributed to the differences in white and African American respondents' answers. While analytical variables were largely the same, the reasons behind each analytical variable were different. Identity is how people see, understand, and think of themselves, which consists of cultural attribution from others, individual behaviors, and self-attribution. However, different demographics of respondents connected sustainable agriculture to their identity within different forms of identity. Accessibility can be thought of as social, physical, and economic and was a much stronger factor for the African American interviewees than the white interviewees. Health can also be divided into a shift in overall diet, which was more prevalent in African American respondents, compared to a concern for authenticity, a larger concern for white respondents. Community can be broken down into three categories, the community at a farmer's market, the community of farmers within sustainable ag, and the local neighborhood community, which was more prevalent in African American respondents. Each of the four factors further clarifies why people become involved in sustainable agriculture, which offers insights into how we can increase overall involvement in sustainable agriculture in Indianapolis.

**Analytical Variables Leading to the Involvement of Consumers and Farmers in
Sustainable Urban Agriculture in the Indianapolis Region**

A Thesis

Presented to the Department of Environmental Studies

College of Liberal Arts and Sciences

And

The Honors Program

Of

Butler University

In Partial Fulfillment

Of the Requirement of Graduation Honors

Olivia Holabird

May 9, 2020

Introduction

Access to food is a human right. It does not matter race, gender, or background, we all need to eat. And, we all need to eat healthy and nutritious food in order to get proper nutrients in our bodies. Indianapolis has particularly low food access. The USDA's study found that 40 percent of people in Marion County have low food access, but a local IUPUI study found that number to be closer to 61 percent (Andes). **Low food access** is defined as a specified location where 33% of people are more than one mile from a grocery store (Andes). Low food access is inconvenient for those in higher-income neighborhoods; however, the assumption is they have a means of transporting themselves to a further grocery store. Food access becomes critical in low-income neighborhoods where many do not have access to a car.

Beyond low food access are **food deserts**, which the CDC defines as "areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet" (NACDD, 1). Studies have found that food deserts are more common in areas with higher poverty rates and a larger minority population (USDA). Researchers at IUPUI found that 200,000 Indianapolis residents live in food deserts, where they included low income as part of their definition of food deserts. Many people do not have access to food or the food they do have access to leads to health complications such as diabetes, cancer, obesity, heart disease, and premature death. It has been found that other factors like race, income, and education have a significant relationship with obesity and diabetes within a given population (NACDC).

One part of the problem of food deserts is the way our food is grown and distributed. The majority of our food (currently 99% of agricultural land) is grown and

distributed through conventional agriculture (Reganold). Characteristics of **conventional agriculture**, according to the USDA, include, “ rapid technological innovation; large capital investments in order to apply production and management technology; large-scale farms; single crops/row crops grown continuously over many seasons; uniform high-yield hybrid crops; extensive use of pesticides, fertilizers, and external energy inputs; high labor efficiency; and dependency on agribusiness.” This type of farming produces high quantities of cheap, sugar and fat-filled food shipped in from hundreds of miles away to be sold at grocery stores. Because this system is so large and covers food for so many people across the country, those who are left out of the system tend to be those without privilege and access, like those who are part of food deserts in Indianapolis.

An alternative system of agriculture that would be particularly beneficial to combating food deserts in Indianapolis is sustainable urban agriculture. **Sustainable agriculture** is defined by its ability to keep the farm productive both now and in the future. Its goal is to meet the current food needs of the population, without compromising the future generation’s resources to meet their own needs. The Union of Concerned Scientists break the concept into three facets: “the economic (a sustainable farm should be a profitable business that contributes to a robust economy), the social (it should deal fairly with its workers and have a mutually beneficial relationship with the surrounding community), and the environmental.” Within the social part of the definition for sustainable agriculture is an emphasis on working within the community. This can allow for empowerment within the community, which can look like community members taking part in gardening and making their own food, learning how to cook the food they grow, and creating an economy within the community. This system, by working with each

community, can help communities get themselves out of a food desert, and by extension poverty. This leads sustainable agriculture to be particularly important in combating food deserts because it does not act as a band-aid. Other programs currently being put in place, for example offering free uber rides to those who need access to grocery stores, fix the problem in the short term. But what happens when the funding for that program runs out? Investing in sustainable agriculture within communities will fix food accessibility now and for the future to come.

However, sustainable agriculture is only one part of the puzzle. In discussing food access issues in Indianapolis, one needs to look at sustainable agriculture within an urban setting. ***Urban agriculture*** includes the production, distribution, and marketing of food in cities and other metropolitan areas (Archer). So, sustainable and urban agriculture need to work together in order to most effectively combat food access challenges in Indianapolis. In Indianapolis, sustainable urban agriculture takes form in organizations like Butler University's CUE farm, which rely on urban gardens to supply their food. There are also local farmer's markets that work with close-by farmers either with urban gardens of their own or small farms just outside the city.

One issue is that we do not know enough about what leads people to be involved with sustainable urban agriculture, specifically the producing, buying and selling of sustainable agriculture products. If we knew more, then we might be able to increase people's participation in sustainable urban agriculture, which would lead us to understand why certain demographics become involved over others, and how to get those located within food deserts to become more involved.

Therefore, I worked with Indianapolis' sustainable urban agriculture sites, specifically Butler University's CUE Farm, Three Sisters Garden, Mother Love's Garden, and local farmer's markets, in order to further answer the question of what leads people, specifically in the Indianapolis region, to be involved in the producing, buying, and selling of sustainable agriculture products. Modeling off of Vermeir and Verbeke, I explored if and how social norms, values, certainty, perceived availability and perceived influence impact people's decisions to become involved with sustainable urban agriculture.

Literature Review

My analytical framework was mostly based on Verbeke and Vermier's analytical variables that worked to explain why consumers purchase sustainably; however, the framework was supported with other literature. Studies done by Joshi and Rahman (2016) as well as Hanohov and Baldacchino (2018) reaffirm the utility of these analytical variables. Verbeke and Vermeir were studying consumer behavior with sustainable agriculture in more conventional grocery settings. Specifically, they were analyzing the gap between attitude and action with consumer choices in sustainability. In other words they wanted to explain the gap between those who say they want to purchase sustainably and those who actually purchase sustainably. However, their framework was applicable for general attitudes towards sustainable agriculture. Verbeke and Vermeir found that values, social norms, certainty, perceived availability and perceived influence all affect consumers' choice to buy sustainable products. Although I studied producers and sellers as well as consumers, I am modeling these core variables off of Verbeke and Vermier's because they provide a framework for identifying and analyzing people's reasons for involvement.

Values are relatively stable, decisive beliefs that guide our preferences for outcomes or actions in different situations (McShane and Von Glinow). They, according to Verbeke and Vermier “motivate action, giving it direction and emotional intensity” (173). Studies have shown in the past that values also guide consumers’ behavior more than consequences (Vermier and Verbeke). While values are beliefs that cause internal pressures, social norms are society’s beliefs that cause external pressures. Social norms can guide people’s decisions on everything from how to dress, how to act, and what to eat. Studies have shown that social norms influence behavior towards sustainable products (Vermier and Verbeke). Unlike values and social norms, which stem from individual and societal beliefs, certainty comes from information and knowledge. Certainty pertains to the confidence in whether or not the product is what it says it is. According to Verbeke and Vermier, “studies show that few consumers have a high awareness or comprehension of the real sustainable characteristics of products” (174). It is also difficult for consumers to evaluate the level of sustainability themselves, leading them to simply trust the source, which causes consumers to be uncertain of sustainable products. If they are uncertain of the legitimacy of the product and therefore organization, they are much less likely to participate with them. Lastly, perceived availability and influence both handle the consumer’s perception of their interaction with the product. Perceived availability is how easy and convenient the consumer thinks it is to get a certain product. Perceived influence is how much the consumer believes their impact of purchasing the product will have on society. It is common that consumer’s values are set and knowledge is available to motivate a person to take action in sustainable agriculture, but the lack of availability, or perceived availability

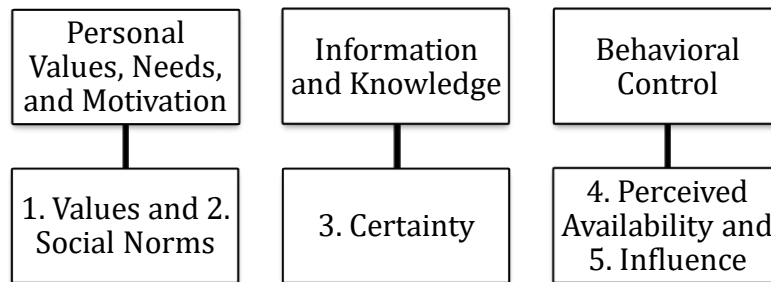
keeps them from following through. It is also common that people do not believe that their personal efforts will contribute to fixing the problem.

I set up my interviews around the structure of these five variables because they are involved in the determinants of the decision-making process (Vermier and Verbeke). The three main determinants are personal values, needs and motivation; information and knowledge; and behavioral control (see Figure 1).

Determinants of the

Decision-making
process:

Variables I planned to
study:



From these stem the five variables I worked with. I investigated how sustainable agriculture participants define these variables, as well if, how, why and to what extent they shape participation.

It is not just Verbeke and Vermeir that have concluded these variables affect sustainable agriculture participants; several other studies have had similar findings. Joshi and Rahman (2016) studied the young consumer's green purchase behavior and used the variables of social influence (directly relating to social norms), perceived environmental knowledge (in other words, the perceived influence that the product will have), and exposure to environmental messages and ecolabelling (i.e. messages that would give consumers a certain perceived availability). Hanohov and Baldacchino (2018) studied opportunity recognition of sustainable entrepreneurship and found variables of altruism and moral thoughts (correlating to values) and prior knowledge of natural and communal

environments, as well as prior entrepreneurial knowledge (both of which would increase certainty of the product), affect whether or not entrepreneurs are more interested in sustainable opportunities. These are just two of many examples where these variables are found again and again in the literature relating to sustainable agriculture.

I used these five variables to set up my framework, guiding my interviews. However, through my research I found four alternative variables that were relevant to bringing consumers and farmers into sustainable urban agriculture: sense of identity, accessibility, health, and community. Identity is how people see, understand, and think of themselves, which consists of cultural attribution from others, individual behaviors, and self-attribution. Accessibility can be thought of as social, physical, and economic. Health can also be divided into a shift in overall diet compared to a concern for authenticity. Community can be broken down into three categories, the community at a farmer's market, the community of farmers within sustainable ag, and the local neighborhood community. As I will show below, each of the four factors further clarifies why people become involved in sustainable agriculture, which offers insights into how we can increase overall involvement in sustainable agriculture in Indianapolis.

This transition away from Vermeir and Verbeke's analytical variables was largely affected by the differences I found with African American respondents and white respondents. I noticed at farmer's markets that there was a lack of people of color both as consumers and as growers, and after a discussion with one farmer, I learned a sad reality within Indianapolis. When asked if he feels a sense of community within sustainable agriculture in Indianapolis, he said, "I think it depends who you talk to. In my experience, it's very segregated." He goes on to discuss how at local conferences and events there are

very few people of color on panels. My interview with him opened up my view of sustainable agriculture in Indianapolis. I then reached out to individual African American farmers and consumers to get their opinion on sustainable urban agriculture and found a very different story. While the analytical factors were largely the same, the reasons behind each analytical variable was different. For identity, different demographics of respondents connected sustainable agriculture to their identity within different forms of identity. Accessibility was a much stronger factor for the African American interviewees than the white interviewees. Health for African American respondents was a complete shift of diet rather than white respondents' concern for looking for more authentic produce. The subcategory of Community the local neighborhood was much more important to African American respondents. Overall, this showed African Americans' involvement in sustainable agriculture was due to the need to fight food deserts because their communities lacked of access to healthy produce. This need to involve themselves in sustainable urban agriculture is much different from the white respondents' option to choose sustainable urban agriculture.

This is found to be true in many communities across the US as well. For example, in Detroit, where healthy food is scarce in low income communities, an organization called the Detroit Black Community Food Security Network came together. What they are most known for is their "D-Town Farm." In their work, they noticed a similar trend, as an organizational founder, Kwamenah, states, "Whites have better access to fruits and veggies in their own neighborhood. People in the suburbs make choices to engage in urban farming. For D-Town farmers, it's a necessity" (White, 131). This disparity even has a name: supermarket redlining. Studies have found that, much like redlining in terms of

housing where people of color were systematically kept out of certain neighborhoods and given worse mortgages, forcing them into poverty, a similar trend has happened with supermarkets (Eisenhaur). There is a clear trend, peaking in the 1980s, toward fewer, bigger grocery stores located outside cities in suburban neighborhoods. Eisenhauer explains, "Some critics have referred to this disinclination of large chains to locate in cities as 'supermarket redlining'." It is important to keep this concept in mind as one continues to analyze and discuss urban sustainable farming.

Methods

In my study, I was looking to contribute to this literature by exploring what leads people in the Indianapolis region to become involved in the buying, producing, and/or selling of sustainable agriculture. Most literature in this field focuses on either consumers or producers, not both, and most are focused on organic products in a grocery store rather than on local sustainable agriculture in farmer's markets. In addition, few studies are on urban sustainable agriculture, and I was not able to find a single study on Indianapolis in terms of sustainable agriculture. Therefore, my study would be relevant in order to fill the gap in research on urban sustainable agriculture in the Indianapolis region. In order to collect my data, I conducted open-ended and semi-structured active interviews with 12 people who are customers, vendors, and producers of farmers' markets or other sustainable food sites in order to explore and analyze their reasons for participation. 6 were farmers, 6 were consumers; there were 3 African American interviewees, 9 white interviewees, 4 men and 8 women. Each interview was recorded and they ranged from 20 min to an hour in length. Most were conducted at farmer's markets with several at

locations agreed upon by the interviewee. Each farmer I interviewed practiced the definition of sustainable farming practices I explained, however not all use that terminology.

I utilized these research methods because they are appropriate for research exploring deep structures, patterns, and meanings of ideas, beliefs, and behaviors. This method allows the researcher to be engrossed in the setting, while allowing them to see the setting from different points of view. Surveys restrict the researcher with close-ended questions that do not consider the social context (Neuman). On the other hand, I wanted to be able to ask open-ended questions, which would only happen if I was able to create a relationship with my participants and interview them over a longer period of time. According to leading research analysts, James A. Holstein and Jaber F. Gubrium, “the subject’s interpretative capabilities must be activated, stimulated, and cultivated. The interview is a commonly recognized occasion for formally and systematically doing so” (17). An active interview setting is “most appropriate in those instances when the researcher is interested in subjective interpretations or the process of interpretation more generally, even for ostensibly well-defined information” (Holstein, 73).

I was able to work with interviewees to delve into meanings of common words like sustainability, community, health, and accessibility, finding patterns between definitions and weaving interconnected concepts together. Analyzing these definitions allowed me to better understand involvement in sustainable agriculture, which would allow for possibilities of increasing involvement. Surveys restrict the kinds of questions I could have asked, do not allow for clarification, and force the interviewer to follow the same set of questions. However, “the tasks of the active interviewer, then, extend far beyond asking a

list of questions. It involves encouraging subjective relevancies, prompting interpretive possibilities, facilitating narrative linkages, suggesting alternative perspectives, and appreciating diverse horizons of meaning” (Holstein, 78). In order to better understand participants’ reasons for becoming involved in sustainable agriculture, I planned to find out deep patterns within different definitions of interconnecting concepts like community and sense of identity, which are not possible to discover with simple questions from a survey. Therefore, this method was most appropriate for addressing the interconnected reasons people become involved in sustainable urban agriculture.

I used purposive sampling to select my research subjects. Purposive sampling is best used for exploratory and field research because “it selects cases with a specific purpose in mind” (Neuman, 222). This sampling method allows me to look specifically for participants of sustainable agriculture for my sample. Also, about halfway through interviews, I discovered significant differences in the sustainable agriculture community in Indianapolis between white and African American farmers and consumers. I then turned my attention to specifically African American farmers and consumers to collect a wider study sample of the Indianapolis population. I also used snowball sampling. This means I utilized the networks and connections of my thesis advisor and the CUE to identify two to three initial respondents and then find more subjects through the connections of the initial respondents. I also used convenience sampling at farmer’s markets, going up to consumers and growers there asking if they would be willing to be interviewed.

In order to conduct my analysis, I recorded and transcribed each interview. Afterward, I went back and coded my data to see which variables (social norms, values, certainty, perceived ability and influence) came into play, if at all. I recorded my findings

and looked for emerging patterns in the conversations, creating conceptual categories. These categories turned out to be identity, accessibility, health, and community. These categories are interconnected within my data but separating them allows me and future researchers to assess their impact on people's behavior to see why people become involved in sustainable agriculture.

It is important to note the limitations of the numbers of people I interviewed. This is more a snapshot rather than a representational standard of the groups I have categorized. This means I will rely on literature as well as my interviews to help come to conclusions as well as create discussion points due to a somewhat limited representation. It is also important to note that I, myself, am a female white consumer of sustainable agriculture and that my own representation may have had a subconscious effect on the responses of the interviewees.

Analysis

Although I had set up my framework using Vermeir and Verbeke's analytic variables, through my interviews and coding process, I found my own four analytic variables: sense of identity, accessibility, health, and community. These variables were specifically relevant to the Indianapolis sustainable urban agriculture community because of the large issue of food deserts and segregation within the community. Therefore, within each variable, the reasons for involvement are different for white and African American respondents. Identity includes cultural attribution of others, self-definition, and individual behaviors. White consumers primarily identify themselves with sustainable agriculture through cultural attribution of others, white farmers identify themselves primarily through self-definition,

and African American respondents do so through individual behavior. Accessibility was barely mentioned with white respondents but was extremely important to African American respondents. It can be broken down into physical, economic, and social accessibility. All aspects would need to be addressed in order for sustainable agriculture to be fully accessible to all, particularly less advantaged neighborhoods. Health was important to white respondents because they were looking for more authentic produce. However, for African American respondents, health was an issue of completely changing the diet of their community. Lastly, the variable of community can be broken down into the community at farmer's markets, the community of farmers within sustainable agriculture, and the local neighborhood community. The local neighborhood community was of more importance to African American respondents and was a large motivator for involvement in sustainable agriculture. Each of these analytical variables affected the interviewees decision to become involved in sustainable agriculture and will be discussed in more depth below.

Sense of Identity

The first variable I found to be relevant to the subject's participation in sustainable urban agriculture was a sense of identity; how people see and understand themselves. The definition I will be working with for social identity divides identity into four subcategories: "identity includes (1) individual behavior, (2) cultural attribution from others (including lay actors), (3) structural location, and (4) self-definition" (499, Brekhus). Individual behavior is the actions one takes in their life. Cultural attribution from others is how others see and define you, based on the culture you are in. Structural location consists of your demographics like your age, gender, race, sexual orientation, economic status, etc. Lastly, self-definition is how you define yourself from within. It is important to note that

identity is always a shifting combination of these things; however, at times, some are more present than others. For example, different respondents had the sustainable agriculture aspect of identity come in different forms. From participants' responses, there is a trend that sustainable agriculture as part of African American respondent's identity is primarily based on individual behavior. For white consumer respondents, sustainable agriculture is a part of their identity based on the cultural attribution from others, and for white farmers, sustainable agriculture is a part of their identity based on self-definition. While all respondents do have sustainable agriculture as some part of their identity, the different avenues as to how their identity is shaped by sustainable agriculture serves to show what they are getting out of it, and therefore how to entice others to join.

A clear sense of identity relating to sustainable agriculture came through with African American interviewees primarily, stemming from individual behavior. One farmer sees herself as a "do-gooder", which got her into sustainable agriculture. When asked what her peers think of her involvement in sustainable agriculture, she responds with, "I've always helped people, that's something my family has always been big on so I don't think anybody was too surprised going in that direction." Even when asked about attribution from others, she still talks about individual behavior. She also explains how glad she was to get into farming because "my heart is always my community, how I'm helping somebody else, so it just sort of fell into place." Her actions of helping people have defined her identity, and therefore when her community needed her to become involved in sustainable agriculture, she stepped up. One consumer is a teacher, who studies and teaches about sustainable agriculture. To her, teaching is a large part of her identity: "it's not about me keeping this knowledge all bottled up for myself, it's about me sharing it with young people

and having you guys take it to a higher level.” However, the same sentiment of teaching in order to do good for future students shows through with her passion for sustainable agriculture and food justice:

“I feel the same way about the environment and various aspects of justice that I need to do my part for the generations coming on and I don’t want to live my life without doing as much as I can possibly do to make it better. So if I can find a way, even just if someone reads my book and is like oh we need to be more restorative with these smaller farming groups then I’ve done my job.”

Another farmer has a similar outlook on her involvement in sustainable agriculture: “it’s like we have to share our knowledge with everyone because it’s not going to do us any good holding onto it.” Her actions to be a farmer as a means to share her knowledge are a large part of her identity. Being a sustainable agriculture farmer is such a big part of her identity that she wants to pass her farm onto her grandkids, “I’ll be doing this as best I can until I can’t anymore. Hopefully, I’ll pass it onto my grandkids.” The actions that make up the individual behavior of these respondents were a factor as to why sustainable agriculture is part of their identity, and therefore why they became involved in sustainable agriculture.

Sustainable agriculture is also a part of white consumers’ identity; however, it stems largely from the cultural attribution of others. For them, sustainable agriculture is a part of their identity because that is how others see them. They know that being involved in sustainable agriculture has a set of connotations, which will change how others will view them. They want others to associate those connotations with themselves and therefore involve themselves with sustainable agriculture. One consumer’s identity with sustainable

ag is infused with her identity growing up in Napa and moving to Indianapolis. She wants others to see her as the “California girl” and the associations that come with it, including sustainable agriculture:

“there’s a huge emphasis on natural farming, of course the vineyards. There’s this awesome, like, kind of gardening club called Kopia that we did some school field trips to and I just loved the way that it felt to garden and then watch people come around things that we helped grow from the earth and then distribute them among themselves and share them. So that always kinda stuck with me.”

Growing up in Napa and being around people who are interested in sustainable agriculture from a young age shaped how she identifies, because now she still wants that part of her life to be a part of her even after moving away. Another consumer went vegan, which led her to sustainable agriculture. She explains, “we’re the weird vegan family.” And when asked if she feels ostracized for being vegan she replies with “no because I really, I don’t prefer to be the other way so” with her mother-in-law interjecting with “and you don’t care what other people think.” For this consumer, sustainable agriculture is part of her identity because she wants others to see her as against the grain. She says people call her a “health nut” for buying sustainably and being vegan, but she enjoys being set apart that way.

Other examples include one consumer wanting others to see him as anti-Big Ag, and so sustainable agriculture was his way to publicly show his peers he’s moving away from big corporations. When asked about what brought them to sustainable agriculture he answered, “actually just getting away from all the big, mass produced farms agricultural and meat plants.” When asked about what makes sustainable agriculture worth the higher cost, he says, “knowing that I’m helping some family out instead of a larger corporation.”

He also discusses how transparent small farms are, “which you know a lot of big corporations are usually the opposite.” And it is clear that the fact that he goes to farmer’s markets is how his friends see him because he explains, “my friends around here too will let me know about others outside of this one particular one.” Another consumer grew up as a farmer and likes to think it is her way of supporting the community she was raised in as well as keeping that part of her identity. She explains it was “one of the motivating factors” for her to become involved in sustainable agriculture. Also, in response to asking if sustainable agriculture was a necessity for her, she replies, “it is for me because I grew up on a farm and I have great sympathy for farmers.” For her, growing up on a farm is such a part of her identity that she involves herself in sustainable agriculture to continue that identity. For these consumers sustainable agriculture is a part of their identity due to how they think those around them perceive them. This aspect of their identity is also shaped either by how they grew up or how they want to see themselves today, defining a part of who they are.

White farmer respondents also had a strong sense of identity within sustainable agriculture, but it stemmed from self definition. One respondent discussed how she sees farming as a “vocation” for her. She talks about how “I think people feel pulled to it. We talk about it like the farming bug. There’s a bug you get bit by. And we both caught it and when I see other younger growers mostly that’s the case.” Another farmer also seemed to have this “farming bug.” He explained he grew up on a farm; “we always had big gardens and I guess I was the one to follow my dad around and did all the gardening and everything so, it [became] a passion for growing things.” Another farmer talks about his journey to

sustainable agriculture and growing after graduating college and starting to read up on what he was passionate about:

“I think combined with a number of things I was reading I was drawn to see a connection in agriculture among a lot of those different issues that made sense to me. And at that point just grew in me a vague desire, a vague hope, for in the future to become involved in that world. So really then that just started kind of a slow chain of a decade long process of continuing to read and learn more starting to meet and network with other people who were similar. Someone early on in that process taught me how to garden for the first time. I hadn’t grown up with it. I was a suburban kid in New Jersey. My parents were not involved in anything remotely like agriculture. So I started doing, I was still meeting people, developing more of a sense almost of my identity of I don’t know how I’m getting there but I want to be a market grower.”

It is clear with this farmer that sustainable agriculture is interwoven with his identity from within as he sees and understands himself. This is true for many of the farmers that I interviewed.

Sustainable agriculture is a part of every respondents’ identity, although in different ways. For African American respondents, this part of their identity came from individual behavior, for white consumers, it was from cultural attribution from others, and for white farmers, it was self-definition. This means that they all have emotional and individual stakes with sustainable agriculture. In other words, it is not just a purchasing or career choice but is a part of who they are and means a lot to

them. Understanding the nuances of this analytic variable is important in order to bring more people to become involved in sustainable agriculture.

Accessibility

The second analytical variable I discovered was of importance to interviewees was accessibility. Accessibility can be broken down into three categories: physical, economic, and social. There can be a physical barrier to entry, meaning markets are not located in places where certain communities are able to access them. Also, many people believe, and it is often true that sustainable agriculture is more expensive than conventional agriculture. This means only those with economic means are able to access sustainable agriculture. Lastly, the social aspect of accessibility comes from sustainable agriculture's exclusivity of many types of people because of its connotation of elitism, meaning there may be a market that sells produce at affordable prices within walking distance of a community in a food desert, but because they think they do not belong there, they will not participate. All three categories of accessibility therefore needs to be addressed in terms of increasing involvement in sustainable agriculture.

However, an important trend to keep in mind when discussing accessibility is those interviewed who are African American all spoke of accessibility being a large barrier to involvement, whereas only half of white farmers brought up accessibility and only one white consumer. This begins to show the divide within sustainable agriculture between those who have privilege and those who do not. Those who are privileged enough to live in a neighborhood that has a farmers market and was introduced in one way or another to sustainable agriculture are the ones who are able to benefit from it. Therefore the

sustainable agriculture community is excluding an entire part of the population and, possibly worse, does not even realize they are.

In order to address lack of accessibility within sustainable agriculture, one must delve into the different categories of accessibility, the first being physical accessibility. In both African American farmers I talked to it was up to them to supply food in their communities. They realized their communities did not have physical access to healthy food or in some cases any food at all. One explains,

“2015 the Double 8, it was actually at Martin Luther King and 29th street, the Double 8 closed, actually all the Double 8’s closed. The one here, there’s one on Illinois, I think there were 4 or 5 locations but all of them closed overnight. So that sent panic through the neighborhood because we were already limited in food choices. Double 8 was not the best. It was sub par, but it’s all we had.”

She, along with some other members of her neighborhood turned to Kheprw Institute, which helped them set up a CCFI, community controlled food initiative. It is essentially a food coop that would supply her community with fresh produce. But she explains they ran into one issue,

“And going through that process, one of the problems that we were finding was finding local farmers from which to purchase produce for the bags so that’s how I started growing. If the problem is we don’t have farmer’s, I’ll just grow. I’m here, I’m local, you know I’m not working a full-time job anymore, so my time is my own and my goal was to give back to my community.”

Therefore she started growing food for the coop that her community so desperately needed. By growing and selling their own food within her community, she nearly single-

handedly brought their communities out of food deserts by increasing the physical accessibility of sustainable agriculture in their communities.

Another African American farmer faced a similar issue. She actually left the local farmers market to set up her own in specific locations so that those in her community without normal access to fresh produce were walking distance to her markets. She explains, “we had one along 38th and forest manor. There’s no grocery stores there. Then 38th and Punts Road. There’s no grocery store there and there’s a lot of apartments in that area so the people have no way of getting anything. And then we have 46th and Arlington Ave. where they closed the [Marsh] last year. That was the last [Marsh] and they closed that.” The farmer even takes it a step further with her “mobile markets:” “we can bring the food to the people, like we have mobile markets, also so that’s another thing. There’s a health facility to go to and there’s the Y it goes there, we’ll probably pick up a couple markets.” She even takes into account the timing of the mobile markets: “The thing with that is the timing, is it a time of day where just seniors are home or is it a good time for other people for them to come out and purchase things.” She also saw that her community did not have physical access to fresh, healthy produce and decided it was her job to fix that.

The second category of accessibility is economic accessibility. 70% of those I interviewed discussed the high cost of sustainable agriculture, several putting it as the “main barrier to entry.” One consumer discusses his experience with the cost of sustainable agriculture, “it’s expensive. And that’s usually the big barrier. I notice when I started doing this I spend at least double the normal amount that I would.” For those who struggle to get by, paying double for food is not possible. Produce itself can already be more expensive than other kinds of cheaper carbs. For example, highly processed Ramen is

\$0.25 while a cheap apple is four times as much and one counts as an entire meal while the other cannot. One farmer also discusses the issue of cost, “But I think a part of that is a lot of people see sustainable ag as expensive, similar to organic, especially in African American communities. If you tell someone that it’s organic they’ll go ah that’s expensive.” This farmer also brings up an important point that this association of sustainable agriculture with a high cost is more prevalent in African American communities. This association is partially due to the lack of social accessibility, which will be discussed later. However, it is true that cost does create a barrier in terms of access.

However, some farmers are working to improve this as well. The farmer who started the CCFI created the program in a way that people can pay for other’s produce. For example, she explains,

“So basically it’s a bag of produce it might be 8, 10 items of food in that bag but [...] everybody gets the same thing. Those who have the means pay more. They may pay \$20 for a bag. Those who have snap, we have a matching program. So it’s actually \$15 but the program pays 7.50 of it, so all they have to pay is 7.50. Seniors pay \$15. So in my mind it’s more dignified. So yes you can give your food items to food pantries. But with this, by somebody paying \$20 that’s able to offset the cost for somebody else and everybody gets the same thing. So it’s not like somebody’s like ooooh they got EBT. You know you don’t know who has what because everyone gets the same bag. It just allows those who may not have the means to get the same thing.”

Others have sacrificed their own livelihood to make sure their prices are equivalent to the conventional agriculture products one finds at a grocery store. One says,

“one thing we’ve found out, is it’s hard educating people. They’re resistant because when you say organic, they think expensive. So we just use the term naturally good stuff and when we have markets we’re not making any money, we’re just trying to sell a good natured product to the community so we’re basically selling it for whatever it would cost to buy the same product that is just filled with pesticides and herbicides. We’re just trying to make it affordable for the everyday person. That’s what it’s all about. I’m not going to be rich trying to do this at all.”

Farmers are doing their best in order to make their products economically accessible to their community, even if it to their own detriment.

Yet farmers can put all their time and effort into making their products physically and economically accessible, but consumers may not come due to lack of social accessibility. There is unfortunately a sense of elitism with sustainable agriculture and farmer’s markets. People think they cannot participate because it is for “rich people,” which does speak to the fact they think it is too economically inaccessible for them, but also by the phrase “rich people” they have a particular image of a white, somewhat well off, higher educated person, which they cannot relate themselves to. One farmer explains that she has a market that is physically and economically accessible to her local community and therefore, “we have the markets and there’s foot traffic but a lot of people think farmers markets are just for rich people so it’s changing that mindset.” Also, an issue with some markets that African American farmers have tried to address is growing and selling the type of food that African American consumers are more likely to eat. If they go to a market and see food they do not know how to cook with or prepare, they feel unwelcome and unwanted. One respondent talks about this issue:

“This is something that other farms I’ve worked at have looked at but the cultural appropriateness of the vegetables that we’re growing. Like what kind of community are you in and is that the food that these individuals are going to eat. They’re from a different community, they don’t know how to cook that and they’re not going to come to the farmer’s market or support your farm. They’re not going to feel connected and they feel like maybe you don’t want them there.”

However, some farmers are working to combat this issue of social accessibility as well. Farmers who serve the African American community have focused their products on what their community eats. Along with that, most if not all farmers will share recipes on how to cook their products, but some take it farther and actually supply their customers with a recipe each week. One consumer expressed her appreciation for feeling included, “I think they have a cultural consciousness of knowing who their market is. They know it’s mostly people of color of basically working class background. They know what we eat, how we eat it. They’re providing healthier recipes.” Other farmers markets also have cooking demonstrations to show the consumer how to cook certain products. One farmer said, “But we have to teach them there’s other things, look at this vegetable over here, try this out, there’s different ways to fix stuff.” While offering products they know their community will use, they also offer different products with demonstrations and recipes in the hopes they will branch out and diversify their nutrition intake. However, all of this is with the mindset that they want to take into consideration the social accessibility of the consumers, and by telling them how to cook the food they offer, it seems less alienating to people.

With the three categories of accessibility, physical, economic, and social, each need to be addressed in order to combat food deserts. There are solutions currently being

created, however, this needs to be more widespread. These solutions were large motivating factors to bring people into sustainable agriculture as a means to bring healthy food into their communities. While accessibility for food needs to be increased, there is also an emphasis on accessible healthy food in order to fully fight against food deserts in Indianapolis.

Health

Health was another analytical variable that I found prevalent to the respondent's involvement in sustainable agriculture. In white interviewees, health referred to the concern for authenticity of a product. They were interested in how far products were shipped, what shelf life they had, and the unnerving "perfection" of store produce. It was slightly different in African American respondents. Health for them was a concern for an entire change of diet, mainly from mostly processed foods to whole foods. Health to many was a large motivating variable in terms of getting them involved in sustainable agriculture, which can be a tool used to bring others into the community.

White consumers discussed health being a main factor for them turning to sustainable agriculture. The common theme was produce at farmers' markets are fresher and more authentic than grocery store products. Some feel grocery store products are too flawless: in discussing the CUE Farmstand, one consumer said, "The produce here is noticeably fresher and not as freaky-perfect-looking which is awesome because you know it's real." She continues to say, "yeah [at the] grocery store you definitely get more of the cookie-cutter poster child of the vegetable or fruit which can be aggravating just because

it's a little suspicious and you know there are a lot of things that were tossed out that could have been just as fine." Some appreciate the transparency of farmer's markets,

"It's funny because it's a lot easier to get more information about where the food source is coming from and how they produce the food. Do they use any chemicals or whatever. Most of them here don't, so. But they're very honest and upforth. And a lot of them have like customer appreciation days where you can like go to their farms and ask all the questions that you want about it."

Another important part of that consumer's quote is their concern for chemicals, which others share, "I'm not a huge fan of just general large box stores, grocery stores. I think they pick things too early and they don't necessarily use fair labor treatment and standards and I think they use a lot of pesticides as well." Some consumers share concern about how the long shelf life of grocery store products means they never ripen, "I mean you go to Walmart and everything is not ripe and it won't ripen well in your kitchen and it's frustrating so you come here. I mean grocery stores across the board are that way because you have to ship everything. And this is locally grown and it's picked when it's ripe and that's a big motivator for me." Overall, ripeness due to far shipping, and inauthenticity of products caused these white consumers to turn to farmers' markets as their source of produce.

White farmers did not discuss health as much. One supports consumers' views of fresher products, "It's not grown to ship 3000 miles. It's grown to sell fresh and eat." The same farmer also addresses consumers' concern for pesticides, "I think we're being poisoned by the non organic and all the chemicals, the chemical cocktails that they put on you know, synthetic fertilizers, synthetic herbicides, synthetic pesticides all on one product, it's just like a chemical cocktail to me. So I think the largest impact as a whole is that the

people eating our food and being healthier and taking care of themselves better.” Another farmer talks about how farmer’s markets offerings are more diverse than grocery store products, “a lot of them that are highly diversified have the potential to put out more of a volume and a healthier mix of calories for communities.”

However, there is a slightly different view when it comes to African American consumers and African American farmers. They are more concerned about the overall health of their community. One farmer discusses how in their community, “we have so many health issues especially in the poor communities, low income communities, so if we can learn to eat right, eat better, we can prepare, so many people do processed foods, but if we can just prepare our food, we can be healthier.” Another talks about how a main source of food are food pantries: “I think a lot of the time we use food pantries very heavily and the problem with that is a lot of items from the food pantry are [thumbs down]. They’re processed food.” Both farmers discuss how their communities, due to their reliance on processed foods, have lost their ability to cook meals for themselves. This is one reason why they offer food demonstrations and recipes at their markets. One farmer discusses how she also grows and sells herbs and spices: “We take a lot of the things we grow, we take the herbs and we make our own spices with herbs because a lot of stuff we buy at the store is filled with fillers, we have a lot of fillers going on. So we just want, we know what’s in it, whatever it says it is it’s 100%. No fillers in it.” African American farmers also discussed the sodium heavy diets of their community. One, when talking about their food demonstrations, states,

“We also try to focus on low sodium so getting people to eat things they would not have normally eaten. It’s like there’s no salt in there? No, there’s

no salt. You know when you learn how to play with the other seasonings, like onion powder, garlic powder, your paprika, oregano, basil. When you learn how to play with flavor in your food, you don't have to use as much salt."

These farmers are doing their best to change the health of their community, from processed foods, to home-cooked meals. One African American consumer discusses her struggle with how certain types of unhealthy food are part of her culture. She uses the example of rice,

"One thing I do remember that I've always seen as cultural and I've always carried on was we had rice at every meal. And so that's been a hard habit for me to break. But I do remember I was talking about it to someone and they said to me well they can eat a different type of rice. And I had never eaten brown rice before, always just white rice. And so that's been an adjustment that I've been trying to pick up and you have these staples that are comfort food to you and it's hard to give them up completely, so you say what's the adjustment you're going to make."

This leads one to think the problem is not simply a lack of access to healthy food, but also generations of eating a certain way that is not as healthy for you. With these struggles, each African American interviewee is actively trying to get themselves and their communities to eat healthier, by changing what they eat. This process of shifting what communities eat to healthier, more sustainable products is one way to get more people involved in sustainable agriculture to combat food deserts.

Community

Community is the last factor I found relevant to respondents' involvement in sustainable agriculture. There were three categories of communities that I found prevalent with respondents: the community within the physical farmer's market boundaries, the community of farmers within sustainable agriculture, and the local neighborhood community. The first category was prevalent across races interviewed. The second is true for both African American and white farmers, however, there is a possibility of segregation within it. And the last was more prevalent among African American farmers and consumers.

Something every interviewee talked about was the community they felt at a farmer's market, whether it is relationships between customers or relationships between the consumer and farmer. One white consumer said "It's where people go when they're not in a hurry and everyone's kind of catching up with everyone else and you get to ask questions from farmers and they really like describing those kinds of things so it's perfect for both sides. There's me asking all these intricate questions about how something's growing and the water and they're like oh yeah all about it." Many other consumers discuss their passion for talking with the farmers. One states,

"But even if they're growing something that I don't know what it is, and I ask them, 'I don't know what this is could you tell me how to use it?' And they give all kinds of information, they're more than happy to give that information out. And for me that breaks down all kinds of divides, we're no longer looking at each other based on the physical now, we're now in a partnership. I'm supporting them, they're supporting me. And it's the best thing."

But, as this consumer said, the farmers equally love talking to the consumers, answering questions, giving out recipes. One farmer states, “you know I loved meeting new people here and talking about my product and giving them recipes and saying this is how you fix that or try fixing that this way and even growing, some of them will talk to me about growing. They’ll say how you grow that and I’ll let them know how I do that. So it’s what I’ve really enjoyed about it, really being at the market itself.” But it goes beyond just the relationship between the farmer and consumer. One consumer said, “whenever I do go to farmer’s markets everybody who goes there, unless their a first-timer or something, is super involved and dedicated to that place, and even the people who are there for you know not very often just like once or twice really love it whenever they do, just the environment there and the devotion that the people have to it.” Farmers agree saying, “you have customers, like I recognize this lady right here comes every week the same with the lady in the blue right there, every week, good morning, and they’re from this neighborhood and so they come every week and I feel you meet new people each week too. So these farmer’s markets, in my opinion, are gathering places. I mean you come here get a cup of coffee, walk though, see other people that are in your neighborhood.” Every interviewee felt a strong community within farmer’s markets, which can be a motivator to bring others to become involved in sustainable agriculture.

The second community that interviewees talked about is the community of farmers within sustainable agriculture. One farmer discusses their relationship with their competitors, who also happen to be their friends, “One of our friends [...] is one of our best friends but is also our direct competitor both at restaurants and markets and we call him our ‘coopetition’. So he’s like our cooperator because we’re always trading tips, like

production tips, but he's also our competitor, but it's friendly. And we're always helping each other out. But there is some friendly competition, which is fun." Another talks about how having farmer friends keeps her from feeling alone in farming,

"Like I have other farmers I know. I call them up like how do you do this, what's a better way, is there a shortcut. Like the first year I was growing corn I thought it was just me, I was like my corn is horrible and then I started talking to people and they were like it's not just yours, it's mine too, so it was everybody's. And then oh my tomatoes didn't do so good this year, and like I thought it was just me. You know so a lot of people suffer from the same thing so it must be the environment. Most of the time we think it's just our own failures but come to find out it's not."

The farmer goes on to explain that the community expands more than just within farmer's markets, "the organic farming community is not that big and especially in the age of the internet and podcasts. Even going to conferences and stuff like we end up going to conferences in Wisconsin usually and you hear of these same farms and see each other and there's a sense of comradery, community between sustainable farmers, for sure." This sense of community within sustainable agriculture producers is a reason these farmers are able to continue farming, because they can rely on each other. While it may not necessarily be a motivating factor to bring these people into sustainable agriculture, it is an important factor to keep them within the community.

The last community that I found was of importance to the respondents in terms of sustainable agriculture was the local neighborhood. This was much more talked about

within the African American interviewees. One consumer explains how they feel like they need to help their community,

“I have a similar background to a lot of people in that neighborhood. I understand their struggles, I have gone through some of the same struggles. So I would say kind of even though I don’t live there but I’m very supportive of the work they do. I try to do my part. You know I get a 6 month plan [as part of the CCFI]. Sometimes when I have extra money I’ll buy an extra grocery bag for someone else, I don’t know who else it is but that’s kind of me just maintaining my part in the community.”

Other interviewees also feel like they have a strong sense of their local neighborhood community through sustainable agriculture. The farmers’ work is centered around their community. In discussing their concern about large portions of meat in their community, one farmer said, “the goal for me is to get the community back to where we were before. I think there was a certain point in time where meat was a smaller portion of what we ate.” The same farmer also discusses how, “we’re trying to make sure everyone in our community is able to know how to cook our food, what it is, what to do with it.” One farmer, when talking about how they decided to start their own markets instead of going to larger ones not located directly in their community, says, “the reason we got into this is to bring the food to our communities so we started our own markets.” This particular farmer even pays the vendor’s insurance so that community members can sell their products for a cheaper price at their market and get their names out in the community. It is clear that, especially for the African American farmers, the local community is why they got into sustainable agriculture.

Community, whether it is within a market, from farmer to farmer, or within a local neighborhood is an important variable to take into account because it can be very powerful. If we invite more into the community of sustainable agriculture, by increasing accessibility, then there is a higher likelihood of involvement and retainment. The higher involvement can then start to decrease the amount of food deserts in Indianapolis.

Discussion

The analysis utilizing these four analytic variables give us greater insight into the main reasons people in the Indianapolis region become involved in sustainable agriculture. This is of particular importance to Indianapolis because it holds some of the largest food deserts in the country. As mentioned in the introduction, sustainable urban agriculture is one way to combat these food deserts. Therefore, understanding why people are currently involved in sustainable agriculture leads us to understand how to motivate others to become involved.

Since these analytical variables are interconnected, solutions they indicate are also connected. For example, sense of identity alone is a tricky variable to use to draw newcomers in. Because identity is dependent on the attribution of others as well as self-definition and individual behavior, one has to change the perspective of an entire community in order to fully affect the identity of a person. However, if you use community as an avenue to get through to identity, it can be easier. From those interviewed, it was clear community was an important part of African American respondents' lives. Therefore the identity of the community may be the best way to get to larger groups of African Americans in food deserts. I suggest this because although African American respondents

developed their sustainable agriculture identity through individual behavior, if that worked for everyone in the community, it would already be happening. Therefore we turn to the other two dimensions of social identity: cultural attribution of others, and self-definition. If we were to make sustainable agriculture a part of the community's identity, then both through self-defining of individual members and cultural attribution (peer pressure) from others would maintain and further develop sustainable agriculture as part of their identity. Therefore, a solution could be to customize farmers' markets to meet the needs and likes of each community. This could include simply offering products that the community are more likely to buy, using a prominent member of the community to contribute/be a part of the market, offer the market at times when most of the community is free and at a location that is easy for the community to get to, and offer additional aspects to the fair that would bring in that specific community. A good example of this would be if a community is particularly religious, partnering with the church and having a farmer's market outside of the church after Easter service or some other big event. This would tailor the market to this particular sense of identity within the community.

Another potential solution to come from my interviews is to make sustainable agriculture more accessible, physically, economically, and socially. This starts by putting markets in places that are physically accessible to the community, whether it means a central location, an easy bus ride, or even mobile markets. This may also take time to build trust within a community, as one farmer says, "you need to be committed because people start to expect you. You have to be there when you say you're going to be there. And when they get used to that and they know they can depend on you, then they'll come out. It's just a lot of education and being dependable and committed to that before people are going to

come out of the apartment to what you're doing." The next step would be making sustainable urban agriculture more economically accessible. This means possibly working with the government on policies that subsidize sustainable urban agriculture in communities so that farmers can do more than break even (which would incentivize others to become farmers), and the product will be cheaper to the public. And lastly, but possibly most importantly, markets would have to be customized to fit each community, as explained in the aforementioned solution. This would decrease the feeling that certain people do not belong at farmer's markets because the market would be made to fit them.

For health, good possible solutions to the problem of getting more people into sustainable urban agriculture to reduce food deserts could be extensions of what some farmers are already doing at their markets. Food demonstrations would be a good way to diversify nutrient intake by showing how to cook with different types of food/produce. Several African American farmers discussed the high salt intake in their communities and therefore a good solution that one particular farmer is already doing is to offer spices alternative to salt and show how to cook with them. One farmer talks about this in regard to her food demonstrations: "We also try to focus on low sodium so getting people to eat things they would not have normally eaten. It's like there's no salt in there? No, there's no salt. You know when you learn how to play with the other seasonings, like onion powder, garlic powder, your paprika, oregano, basil. When you learn how to play with flavor in your food, you don't have to use as much salt." One farmer also talks about how her community eats a lot of meat, "I think the goal for me is to get the community back to where we were before. I think there was a certain point in time where meat was a smaller portion of what we ate, a lot of the time you wouldn't get meat. The meat would be in the food. It might not

have been the healthiest, but you still weren't getting that much." Therefore offering food demonstrations that show meals without meat is a good way to hopefully decrease that intake. Lastly, canning demonstrations, which one farmer does, is also a good solution because they can learn how to can healthier food from farmer's markets so that, if they can't go to a market one weekend then they still have access to healthy food rather than turning to more processed food at grocery stores. These sorts of activities can increase the likelihood of participation within sustainable agriculture and reduces issues of food access.

For community, what I have learned from my findings is that community at the farmer's market and the local neighborhood community are both powerful motivators motivating peoples' participation in sustainable urban agriculture.. As discussed above, the local neighborhood community was particularly important to the African American respondents I interviewed. Therefore focusing on bringing the local neighborhood community into the farmer's market community is a good way to increase involvement. This would be done, as explained before, through working with existing community organizations in order to identify the community's wants and needs as well as being consistent as far as location and timing. There is also the possibility of getting government policy to increase incentives encouraging members of a community to go to local farmer's markets. New organizations could also be created with the same purpose. Therefore if we encourage the local neighborhood community to come to farmer's markets, then we can transform that community into a farmer's market community of their own.

My recommendations for future solutions mostly involve working within communities facing food deserts in order to use identity, accessibility, health, and community as tools to increase engagement. For future studies, researchers should

investigate questions like: Is sustainable agriculture seen as elitist, and if so, by whom? What are local governments currently doing to combat food deserts? Do farmers feel segregated in Indianapolis or in other cities? How often do food demonstrations change the way people eat? How many people in communities of color know about farmer's markets (especially if there are nearby ones)? What do communities of color want at farmer's markets? Most of these questions would have to be answered on a small scale basis. However, if we were to work towards answering these questions, we would get a lot closer to combating food deserts in Indianapolis and across the United States.

It is important to continue searching for answers as to why people become involved in sustainable agriculture, specifically in Indianapolis, in order to combat food deserts. The analytical variables of sense of identity, accessibility, health, and community that I found are only the beginning to answering this question. We must continue to find out why people become involved in sustainable agriculture in order to bring more people, specifically those affected by food deserts, to participate in solutions involving sustainable agriculture. We cannot continue to sleep on the 200,000 residents of Indianapolis without access to healthy food. We must look towards ways to combat food deserts because access to healthy food is a basic human right, not a privilege.

Works Cited

Andres, Unai Miguel, et al. "Estimated 200,000 Indy Residents Live in Food Deserts." *SAVI*,

The Polis Center, IUPUI, 21 Nov. 2019, www.savi.org/2018/11/29/estimated-200000-indy-residents-live-in-food-deserts/.

Archer, Leigh, et al. "Urban Agriculture." *Agricultural Sustainability Institute*, UC Division of

Agriculture and Natural Resources, 2017, asi.ucdavis.edu/programs/ucsarep/about/what-is-sustainable-agriculture/practices/urban-agriculture.

Brekhus, Wayne. "Social Marking and the Mental Coloring of Identity: Sexual Identity

Construction and Maintenance in the United States." *JSTOR*, Springer, Sept. 1996, www.jstor.org/stable/684898.

Eisenhauer, E. In poor health: Supermarket redlining and urban

nutrition. *GeoJournal* **53**, 125–133 (2001). <https://doi-org.ezproxy.butler.edu/10.1023/A:1015772503007>.

Hanohov, Ruven, and Leonie Baldacchino. "Opportunity Recognition in Sustainable

Entrepreneurship: An Exploratory Study." *International Journal of Entrepreneurial Behaviour & Research* **24.2** (2018): 333-58. *ProQuest*. Web. 15 July 2019.

"History of Redlining - Indianapolis, IN" *Youtube*, uploaded by Fair Housing Center of Central Indiana, April 20, 2020,

https://www.youtube.com/watch?v=kX_W_XRNHJ4.

Holstein, James A., and Jaber F. Gubrium. *The Active Interview*. Sage, 1995.

Joshi, Yatish, and Zillur Rahman. "Predictors of Young Consumer's Green Purchase Behaviour." *Management of Environmental Quality* 27.4 (2016): 452-72. *ProQuest*. Web. 15 July 2019.

McShane, Steven L, and Mary Ann Von Glinow. *Organizational Behavior*. 4th ed., McGraw-Hill Education, 2019.

Neuman, W. Lawrence. *Social Research Methods: Qualitative and Quantitative Approaches*. 6th ed., Pearson Education, 2006.

Pobutsky, Ann, et al. "Community Action Guide: Changing Food Deserts into Food Oases: A Resource for States and Communities." *National Association of Chronic Disease Disorder*, National Association of Chronic Disease Disorder, 18 Feb. 2011, nacddarchive.org/nacdd-initiatives/health-equity/resources-and-publication/reports/food-deserts-to-food-oases/at_download/file.

Reganold, John. "Can We Feed 10 Billion People on Organic Farming Alone?" *The Guardian*, 14 Aug. 2016, www.theguardian.com/sustainable-business/2016/aug/14/organic-farming-agriculture-world-hunger.

United States, Congress, Economic Research Service, et al. "Characteristics and Influential Factors of Food Deserts." *Characteristics and Influential Factors of Food Deserts*, USDA, Aug. 2012. www.ers.usda.gov/webdocs/publications/45014/30940_err140.pdf.

Vermier, Iris, and Wim Verbeke. "Sustainable Food Consumption: Exploring the Consumer 'Attitude – Behavioral Intention' Gap." *Springer Link*, 2006, link.springer.com/article/10.1007/s10806-005-5485-3.

"What Is Sustainable Agriculture?" *Union of Concerned Scientists*, Union of Concerned Scientists, 10 Apr. 2017, www.ucsusa.org/resources/what-sustainable-agriculture.