

8-31-2016

Universities and Sustainable Food Practices: An International Comparison Along the Pacific Coast of North America

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UNIVERSITIES AND SUSTAINABLE FOOD PRACTICES: AN INTERNATIONAL
COMPARISON ALONG THE PACIFIC COAST OF NORTH AMERICA

A Capstone Experience/Thesis Project

Presented in Partial Fulfillment of the Requirements for

the Degree Bachelor of Arts with

Honors College Graduate Distinction at Western Kentucky University

By

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* * * * *

Western Kentucky University

2016

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ABSTRACT

My research project examined sustainable practices in relation to food sources at three universities located along the Pacific Coast of North America. The academic institutions were the University of Alaska Anchorage (UAA), the University of California Santa Barbara (UCSB), and the University of British Columbia (UBC) in Vancouver. These schools were selected because while they each foster an abundance of “local” foods and food industries, they represent different stages in the three pillars of sustainability for food practices. My project sought to understand the role of each institution in building a local and sustainable food culture at each university. I analyzed how the food services at and near the institutions reflect the food and nutritional needs and wants of the student body, faculty, and staff of academic institutions and the availability of foods (e.g., healthy, organic, and sustainable) in each area. Using qualitative data acquired through interviews and source-based literature, I classified the three universities in relation to the three pillars of sustainability, namely economic, social, and environmental. UAA was at an early stage of sustainability achievement while UBC was the most developed. In comparison, I evaluated Western Kentucky University (WKU) as situated between UAA and UCSB. Key steps to successful sustainability of food resources include creating local and regional food resources, engaging students,

faculty and administrators, and developing an economically feasible institutional vision. Institutions of higher learning have a strong influence on their region and with forethought and planning, they can serve as drivers of sustainable food systems.

Keywords: Sustainability, University, Local, Food, Region, Nation

Dedicated to my family

ACKNOWLEDGEMENTS

This project would not have been possible without the help and support of so many people. This thesis project is the product of a vast contribution of knowledge and information from University of British Columbia, University of California Santa Barbara, University of Alaska Anchorage, and Western Kentucky University faculty and staff. I would like to extend a thank you to the people who answered all of my questions and provided encouragement and information.

I am incredibly grateful to Dr. Alexander Olson for his continuous emotional and intellectual encouragement and understanding through this whole process, I truly could not have completed this thesis without your support. I am also grateful to Dr. Nicole Breazeale for agreeing to be my second reader and taking the time to get to know me and embolden my passion for this research.

I would like to thank the Honors College for creating a compassionate and intellectual environment for students like myself to pursue our research and our passions. Additionally, I would like to thank the Office of Research for its generous financial support of my CE/T project through a FUSE Grant. Without this support I would not have been able to travel to each of my research destinations to complete this project.

Finally, I would like to thank my family for their continuous love and support throughout each and every one of my endeavors. Their endless encouragement gave me the confidence and determination necessary to pursue a project like this. For this and everything else, thank you.

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CHAPTER 1

INTRODUCTION

An article on local food systems states that the long-term health of a community's food system is an important indicator of its vitality and sustainability (Feenstra 28). Universities and institutions of higher learning play a fundamental role in the longevity and success of the communities that host them. Feenstra states that people throughout the United States are designing and implementing sustainable, local food systems that are rooted in particular places, aim to be economically viable for farmers and consumers, use ecologically sound production and distribution practices, and enhance social equity and democracy for all members of the community (28). There are numerous strategies underway, but in a number of cities in North America, universities provide a principal foundation for experimentation and research to improve food sustainability and develop a local food economy.

My research sought to understand sustainable food culture by examining three locations – Anchorage, Alaska; Santa Barbara, California; and Vancouver, British Columbia – along the West Coast of North America that are all bordered by the Pacific Ocean and foster an abundance of “local” foods and food industries. My research specifically explored available foods and food systems within and around

universities in each location – University of Alaska Anchorage (UAA), University of California Santa Barbara (UCSB), and University of British Columbia (UBC), respectively. In this cross-cultural comparison, I examined how universities reflect the food and nutritional needs and wants of the student body, faculty, and staff of each of these academic institutions, as well as how food sustainability and availability differs based on geographic region versus national borders.

My project investigated the role of the institution in building a local and sustainable food culture at each of these universities. Universities within the UC system regularly top lists of “Greenest” and “Most Sustainable” universities in the nation and UCSB ranks #9 on bestcollege.com’s Greenest Universities of 2016 list. Anchorage, Alaska is part of the far western frontier and hosts a population that acquires much of its food regionally. Though sharing a common coastline on the Pacific Ocean, Alaska is separated by land from the lower 48 states. Vancouver, B.C., though located geographically between Alaska and California, is part of the Canadian province of British Columbia and provides an international, cross-cultural component to this study to determine how the governmental, social, and philosophical nature of people differs even though location and resources are similar.

This project developed from the recognition that these university food systems are experiencing an array of vulnerabilities, predominantly demonstrated by the lack of awareness, implementation of, and access to nutritious and sustainable foods. Specifically, this recognition emerged from my own experience of Western Kentucky University’s sustainable food culture as an undergraduate. The

objective of this research was to conduct a comparative regional food system assessment of three locations along the Pacific Coast that each hosts a public university, and where each institution has prominent coastal and local food systems.

Sustainability in and of itself is a convoluted term that is often misunderstood. In general terms, sustainability is the endurance of systems and processes. The Environmental Protection Agency defines sustainability as “based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. To pursue sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations.” However, there are three pillars of sustainability that guide many universities and organizations in their development of sustainable programs. These three pillars are economic, social, and environmental. A sustainable economic model ensures fair distribution and efficient allocation of our resources. This pillar ensures that economic growth maintains a healthy balance with the ecosystem and promotes the use of resources in a responsible way that provides long-term benefits and establishes profitability. The environmental pillar supports initiatives that maintain and renew our natural resources and reduce the environmental impact of an organization’s facilities, products, and operations. It includes initiatives such as: renewable energy, reducing fossil fuel consumption and emissions, sustainable agriculture and fishing, organic farming, reducing deforestation, recycling, and better waste management. The social pillar maintains that as global citizens, we must not turn a blind eye to social disruptions that threaten the well being of people and our environment. We have an

ethical responsibility to do something about human inequality, social injustice, and poverty. This pillar supports initiatives like peace, social justice, reducing poverty, and other grassroots movements that promote social equity.

Many national and international problem solving efforts and organizations focus on only one pillar at a time and thus leave a void. Solutions to sustainability issues must include all three pillars in order to achieve sustainable objectives.

Additionally, “local food” or the “local food movement” is a term that describes the movement that aims to connect food producers and food consumers in the same geographic region in order to develop more self-reliant and resilient food networks and improve local economies. The exact definition of “local food” does not exist as the geographic distances between production and consumption varies within the movement. The concept of ecological literacy creates a foundation for an integrated approach to environmental problems by understanding the natural systems that make life possible, but also by incorporating social equity issues and economic viability. By implementing ecoliteracy, institutions can prepare students to be informed global citizens and implement the three pillars of sustainability.

Recognizing the substantial impact that universities have on the environment and thus, our communities, it is important for institutions of higher learning to conduct studies and thus implement policies that positively incorporate social and economic policies and programs to enhance the university’s sustainability. This response requires a transformation in priorities and practices, some of which can be applied broadly, and others that will need to be evaluated on an individual basis. The Cornucopia Project (1981) of Rodale Press commissioned

studies of the food systems of several states, including New York, Pennsylvania, and California, that examined how much and which foods of the state's food supply were imported and exported, and considered the ecological, social, and political implications (Feenstra 29). Recommendations were made to regenerate and localize their state's food and agricultural economy. It would be beneficial for universities to conduct similar studies at an institutional level. Furthermore, Jeremy L. Caradonna discusses in his book *Sustainability* how we are now living in a state of global overshoot and his goal is to show the ways in which our society has constructively responded to our ecological crisis – to demonstrate the growth and elaboration of the sustainability movement and describe some of the successes it has achieved in counteracting our bad habits (177). My own research hopes to contribute to Caradonna's message by examining sustainable practices in food selection, acquisition, and distribution at three university food systems.

CHAPTER 2

METHODS

To evaluate the levels of food sustainability at UAA, UCSB, and UBC, I traveled to each university to collect qualitative data and conduct interviews with university faculty and staff. I interviewed 17 culinary staff, purchasing managers, sustainability coordinators, farm faculty, dietitians, chefs, and professors whose research and/or interests focus on food and sustainability totaling in over 380 minutes of taped interviews. At UBC, I interviewed the dietitian, purchasing manager, UBC Farm faculty, sustainability coordinator, SEED faculty, and chefs. At UCSB, I spoke with the sustainability coordinator, chefs, dietitians, Salty Girl Seafood staff, and several other UCSB faculty and staff. At UAA, I conversed with purchasing and catering managers, dining directors, chefs, and several other UAA professors and staff. I also interviewed the sustainability coordinator at WKU. I reached out to 30 total people collectively and interviewed the ones that were available to speak with me. Several interviews were conducted via email as the people were unavailable in person, but the majority of the interviews took place in person and one via phone call. I asked similar questions to every person at each institution.

The interviews typically began with an introduction of their position and how they came to work in their current field. I asked questions regarding

sustainability at each institution, the main initiatives of university programs, student interest and involvement in food and sustainability efforts, how the location of the university affects local food procurement, the university's relationship with the community, challenges associated with promoting and implementing sustainability in relation to food, and further steps the university could take in implementing sustainable aspects of dining services and food availability. At UBC I visited dining halls, restaurants, the UBC Farm, the Museum of Anthropology, campus gardens, and other campus buildings. At UCSB, I visited dining halls, restaurants, the Food Bank, the campus beach, and other university buildings. At UAA, I visited dining halls, restaurants, residential and dining services, and other campus buildings. I referenced literature on sustainability, food culture, food availability at universities, regional studies, as well as university brochures, websites, and several other sources to contribute to my analysis.

This methodology included collecting data of what food is available in university dining services, cafeterias, and restaurants as well as how the universities acquire their food. My interviews with faculty, staff, and food producers illuminated the unique challenges and opportunities generated by the demands of a university community. Each of these universities' physical growth provides opportunities to incorporate elements of social, environmental, and economic sustainability into their food systems and academic programs. "The solutions for sustainability are very context specific; however, every university has the opportunity to do something," Liska Richer Manager of UBC SEEDS Sustainability Program said.

CHAPTER 3

UNIVERSITY OF BRITISH COLUMBIA

Overview of UBC Dining

The University of British Columbia enrolls over 58,000 students a year at its Vancouver and Okanagan Valley campuses. The Okanagan campus contracts out with Aramark, while the Vancouver campus is self-operated by UBC Food Services, which is a 100% self-funded, ancillary department that receives no funding from UBC. It comprises three major business segments: residence dining, retail operations, and catering. For the purposes of this research, the Vancouver campus will be the main point of discussion. Residence Dining operates two large-scale dining rooms at Totem Park and Place Vanier residences where more than 4,500 students live. Director of Food Services, Colin Moore, said that UBC Retail Operations operates more than 30 cafes, bistros, restaurants, food trucks, and franchise food locations on UBC's Vancouver campus. Information for all of these locations is provided on the UBC Food Services website. Food Services also provides full-service and casual catering anywhere on campus through Wescadia Catering. According to the UBC Food Services website, "S.P.I.C.E. flavours all that we do. Sustainability, People first, Innovation, Caring, Excellence. We work hard to create positive change, improve the state of the world around us, foster growth in our

people and be our absolute best, each and every day.” Food Services manages all of the restaurants, with the exception of chains such as Tim Horton’s where the staff is UBC affiliated but Food Services has no control over the food. Victoria Wakefield, Purchasing Manager for UBC Student Housing and Hospitality Services, stated that “we work with them on sustainability and waste, but we do not have any influence on the menus.”

Campus residents at Totem Park and Place Vanier are required to purchase a Residence Meal Plan where they can enjoy savings in residence dining rooms, discounts around campus, and can spend flex dollars at campus partner locations. Professional chefs offer a variety of choices for breakfast, lunch, and dinner, including homemade soups, full-service grill, salad bar, fresh deli sandwiches, omelets, pizza, shakes, and more. UBC also offers several other meal plan options available to non-resident UBC students. Moore said that on average, around 4,000 students purchase a meal plan each year and on campus dining is a very popular option for commuter students.

Wakefield related to me that investing in chefs is extremely important to UBC and they help drive menu development. “They are the best sustainability champions.” She went on to say that universities who are not investing in chefs are short-sighted because they truly bring a level of sustainability, quality, and cost management to the food portfolio. The chefs demand fresh and local food and challenge her to do better. Moore added that, “UBC Food Services has a comprehensive sustainability action plan with numerous goals and tactics.”

UBC in Building a Sustainable Food Culture

UBC has a program called SEEDS (Social Ecological Economic Development Studies Program) managed by Liska Richer that advances UBC's commitment to explore and exemplify sustainability on campus. According to Richer, the department focuses on integrating academics with campus operations by creating projects that help advance UBC's sustainability plans on campus and in policy. The department coordinates and supports student projects that contribute to the development of an institution and a community that is built around sustainability. The UBC Food System Project is a collaborative, community-based action research project initiated jointly by the UBC Faculty of Land and Food Systems and the UBC SEEDS program. Since 2001, the project has engaged over 1,700 students, campus food staff, and faculty to enhance the sustainability of the campus food system.

UBC has a Sustainable Campus Food Guide that was prepared as part of the UBC SEEDS Program's UBC Food System Project and aims to raise awareness of and facilitate participation in sustainable food system initiatives on campus among the UBC community. The guide is available on their website and introduces all aspects of UBC's food system, current initiatives, and what students can do to get involved. It describes a sustainable food system as one that meets the needs of the present generation without compromising the ability of future generations to meet their needs. The guide offers 12 provisions for what a utopian UBC Food System would look like, including: Food is produced in a way that upholds the integrity and health of ecosystems and does not disrupt or destroy them; animals raised for food are treated humanely and are integrated into ecologically friendly farming models; food

is locally grown, produced and processed in support of local people, infrastructure and economies; food is culturally and ethnically appropriate, affordable, safe, nutritious, and minimally processed. The guide provides campus sustainable food system initiatives, a seasonal food chart, a guide to composting at UBC, information about the UBC Farm, as well as education and engagement opportunities. It further describes how “purchasing local and seasonal food helps support your local community, the local economy, and the environment,” encompassing all three sustainability pillars. In this guide, local food is defined as food that is grown within 150 miles from campus. The AMS Sustainability Projects Fund financed the Sustainable Campus Food Guide that has roughly \$100,000 each year allocated for sustainability related projects. The Fund was established in September 2011, when UBC students passed a successful referendum to support student-initiated sustainability projects, through a \$2.25 per student fee each year.

Victoria Wakefield related that at UBC “we are very well known for our green initiatives and sustainable commitments. It’s in our vision, it’s in our strategic plan, and it’s in our DNA.” Wakefield further stated that there is a large community of sustainable change agents working towards improving UBC’s sustainability plans. She posited that, “sustainability is really about leaving the space better than the way you found it, whatever that space is, both financially, environmentally, and socially.” Though UBC’s Sustainability Initiative was not established until 2010, Wakefield felt that UBC is “still ahead of the curve.” Wakefield makes sustainable purchasing a priority and states that this year 57% of all the food UBC purchased is local. The way her department defines local is that a food item is raised, grown, processed, or

produced within 150 miles from campus, but it does not have to fulfill all of these categories. Therefore, in some way the local economy has had access to the product and has imbedded some sort of job or finance into the local economy.

Kshamta Hunter is in charge of Advising and Student Involvement for the UBC Sustainability Initiative. Her goal is to increase awareness around sustainability on campus either through various events or programs and initiatives, but then also work closely with faculty members to integrate sustainability into the already existing curriculum. She told me that UBC “uses the three pillar approach for courses because it is easier for faculty to think about their courses in that context.” However, when UBC utilizes the term for engagement and initiatives on campus, Hunter said that “UBC doesn’t define sustainability, we say ‘sustainability defines us’. It is something that should be part of your everyday life and everything that you do from research to curriculum to teaching, learning, and operations.”

UBC is also home to the UBC Farm that enables UBC to explore and exemplify new globally significant paradigms for sustainable communities and their ecological support systems. The mission of the farm is to be a living laboratory in developing best practices in the range of ecosystem services, provisions, and end product transformation and storage. Academic Programs Manager of the UBC Farm Veronik Campbell connects students, researchers, industry, and community members together so that they can explore, exemplify, and solve food systems and sustainability problems. Students are able to have experiential learning around food systems sustainability and incorporate the farm as an educational mechanism. Campbell said that the farm has existed as part of the UBC campus for decades, but it

was not until the early 2000s that students from campus really rediscovered the farm. “Faculty started to grow food there, they started to bring a lot of students there, and instructors began to initiate to have research programs on site,” Campbell said. She related that the farm was nearly subject to become a victim of real estate, but there was a large push from the community and students to save the farm and create an academic plan for it. As simply growing food is not part of the university mandate, authorizations were established to make food production part of the teaching portfolio at UBC. The UBC Farm land is now secure and there is a designation at UBC called Green Academics where every piece of land at UBC that is green and has an education and research mandate falls under this category. The 60-acre farm grows approximately 80 thousand pounds of food every year and a majority is sold to campus dining services, as well as local farmers markets and CSAs.

Student Interest and Involvement

Wakefield affirmed that student involvement is huge at UBC. Every single housing complex has sustainable advisors and there are over 30 student clubs around sustainability. Wakefield said that there is a “seat for students at every level of decision-making at UBC.” Sustainability is also built into almost all of the curriculums and every year there are at least 1,500-2000 students at the UBC Farm that are engaged in for-credit educational programs for sustainability.

UBC has a speaker series called UBC Reads Sustainability that brings a high impact author to campus around these sustainable issues. Hunter said that the event

revolves around a book and the idea is also to integrate that book into the existing curriculum in classes so that students can read it and discuss in class, but then also come to this event and really engage in the conversation with the author. There is also a program through the UBC Sustainability Initiative called Sustainability Ambassadors that is a volunteer program for students to do various events around sustainability awareness on campus. One of their biggest events is the Sustainability Fair where the ambassadors engage students who are not already involved in sustainability into these conversations. They also do an event just around food called Eating Sustainably for Wellbeing. The idea around this event is to create these conversations around different disciplines and connect those students and what they are learning in their classes to food.

UBC's Relationship with the Community

Wakefield espoused,

“Being aware about what our landscape can produce and what quantity and quality is very important, which is why I think our definition of local is so applicable and apply-able in other countries around the globe. If you're able to buy something that has been touched by your local economy in some way then you are contributing to sustainability. The whole point about sustainability is that it's a journey and you're always trying to do the next thing that is even better, and finance is a big part of that. So ensuring that you have a part in that local chain is key.”

According to Campbell, Vancouver and the microclimate of UBC tends to be a bit cooler than the rest of the province so they do not typically grow heat loving crops such as tomatoes, peppers, and eggplants; however, the farm grows lots of blueberries and greens. “Here I think the proximity of local food is nice and it's easier for people to have access to good local food. There is a long history of organic

farming in BC. Eating local is not a fad here. Vancouver is often said to be the greenest city and healthiest city,” she said. Campbell maintained that Vancouver has a nice climate that allows residents of the city to pursue this lifestyle. “So there’s the offer, but the demand is there too. The demand drives the offering. You have millions of people in Vancouver and most of them are into healthy, local, sustainable food and they demand that, so the offer follows.” She insisted that it is both the climate but also the historical development of Vancouver as a healthy city that drives the community engagement with UBC and sustainability.

Hunter believes that the geographic location of Vancouver definitely affects food availability. “We are placed in a really good setting in terms of food and water supply. We don’t have to necessarily worry about those things so we have this advantage of exploring other avenues and thinking outside of the box in how we can be more sustainable,” Hunter explained. She claimed that “BC is situated in a very privileged place so that we can think about these innovate ideas and do the research on campus, and then pass that knowledge on to the community.” This is an example of campuses acting as living labs and exhibiting the integration of academics and operations coming together to utilize this research and then eventually pass it on to the community.

“I think universities absolutely impact the community because they’re a playground,” Wakefield stated. Universities can test and practice and fail, and then take a failure as an opportunity to learn and do more and improve. “Universities are able to be that resource where you can practice something and see if it works, and then roll it out mainstream.” Wakefield asserted that UBC encourages businesses

and community to invest here and play here so that the institution can build sustaining models that can be capitalized on. Furthermore, Richer felt that, “in British Columbia we’re very fortunate because we have around 260 different food items whereas another province in Canada has around 18.” She continued by saying that the “whole west coast is very fortunate to have that diversity and a long growing season.”

Challenges and Improvements

Because UBC is such a large campus, Wakefield proposed that communication is the biggest challenge regarding sustainability initiatives. She also shared that the next big goal is Zero Waste. UBC Food Services does not buy anything that is garbage; it can either be reused, recycled, or composted. This effort is largely encouraged by Metro Vancouver’s announcement in 2015 that all organic materials (all compostable material, including food, food scraps, food-soiled papers and packaged food) will be banned at landfill. This change is part of the general effort to divert materials destined for landfill in British Columbia. The result is that all business and residents in Metro Vancouver will have to dispose of their organics in an alternate way such as composting. Violators are subject to a fine within Metro Vancouver. UBC has a sorting guide to determine what materials can be disposed of in compost, recycling, and trash bins; however, faculty and staff are finding that even though many trashcans have been removed, people are not sorting right so they are contaminating the different recycling and compost bins. Richer said that there is a huge push now at UBC for people to properly dispose of their waste due to

this ban. She added that Metro Vancouver and UBC are exploring a regional waste collaborative committee to create synergies between the campus and community. UBC recently signed a memorandum of agreement with Metro Vancouver to explore research possibilities and cultivate conversation.

Campbell said that, “a challenge I hope you’re going to hear in other places, because it is a universal one, is that sustainability is a compromise between economic, social, and environmental pillars.” Campbell conveyed that the UBC farm is doing very well regarding environmental sustainability, as they are getting organic certification and utilize sustainable growing methods, as well as social sustainability as the farm has health and nutrition promotions and education programs. However, she says that the financial sustainability piece is the one that is very difficult because prices do not always make it through the budget or fit the student price-range. Campbell also recounted that maintaining sustainability initiatives is difficult as everyone has a limited amount of time and universities are very large institutions that are slow to move; the political climate can be very uncertain.

A consensus among many of the faculty I spoke with is that maintaining communication and getting the message across are some of the biggest factors hindering sustainability and food awareness at such a large university. Though a lot of food problems are really big, some initiatives are also very achievable as well.

“Students feel like they’re actually contributing to something when they are involved in these initiatives. Students feel like they can make this change happen. I think what students need is to be inspired because that’s what going to dictate what they do afterwards. And not only be inspired but be well equipped. When I think of my job, I want to inspire students and also make sure they have the tools to get out

there and make change happen, whatever those tools are. So far I think I've done a pretty good job at that," Campbell says.

Furthermore, Hunter told me "it's about getting students interested and engaged into sustainability conversations." Her vision is to create global citizens and one of the factors in that is being knowledgeable about what is going on in the world and not being isolated in your own region. "They need to know what decisions are being made and how it will effect us eventually, and then making that connection to the individual level so that they are interested and motivated and have the knowledge to be global citizens."

CHAPTER 4

UNIVERSITY OF CALIFORNIA SANTA BARBARA

UCSB Role in Building a Sustainable Food Culture

Mo Lovegreen, Director of Campus Sustainability since 2002, stated that UCSB has had a recycling and energy manager since the early 1970s, as the 1969 oil spill was truly the beginning of the environmental movement in the country. “Environmental studies started here in 1970 after the 69 oil spill and then quickly everyone was on board with that concept of trying to be better stewards of the environment,” Lovegreen said, and continued by adding, “Food is a system wide goal right now.” UCSB has two main groups on campus that deal with food – Housing and Residential Services and UCen Dining, which includes all of the eateries or contracted out places on campus. The University Center (UCen) is the Student Union at UCSB that offers a variety of products and services to students, faculty, staff, alumni, and campus visitors. On the UCen’s Dining Services webpage they state, “We have a commitment to sustainability and our dining units are Santa Barbara County Green Business Certified.” UCen Dining Services has participated on the Campus Sustainability Committee since 2001 and claims to be committed to making changes in the way they provide food services in order to contribute positively to the environment. They offer many organic, partially organic, Fair Trade, natural, and

locally grown or sourced products in all units. All of the pre- and post-consumer waste in the UCen is composted; the units around campus also contribute to pre-consumer composting. Additionally, the Landscape and Grounds crew uses the majority of the coffee grounds on campus to provide nitrogen to the soil and plants.

John Lazarus, menu developer and Assistant Director for UCen Dining, also manages the commissary kitchen, which is one centralized kitchen that makes things to supply all of the retail units on campus and the catering operations. “As far as sustainability, it’s definitely a driving force for us,” Lazarus informed me. Sue Hawkins, Director of UCen Dining Services, imbeds sustainable goals into the contracts she maintains with the different eateries on campus. For example, Lovegreen discussed how the Subway retail on campus typically produced a lot of waste, so Hawkins worked with them to emphasize sustainability and reduce their waste in hopes that they would set an example to further impact their corporate headquarters. “We have student groups that are seeing if Subway can get better, sustainable meats, so they’re going to get hit with another campaign about that,” Lovegreen said.

Hawkins also created the restaurant Root 217 in the UCen. Originally, the UCen had a national burger chain that had been declining for years, so Hawkins decided to terminate that contract and bring in “her own version of a kind of local, sustainable eatery,” described Lovegreen. Hawkins wanted to create a new concept focused on fresh, local, natural, and organic ingredients and, along with her team, created Root 217, which opened in October of 2011. In 2012 it was awarded a Best Practice Award for Sustainable Foodservice at the California Higher Education

Sustainability Conference and it is UCSB's first dedicated organic, sustainable foodservice concept (Tanyeri). The name Root 217 is a play on Route 217, which is a highway that comes into campus. The restaurant uses slate boards on either side of the counter to educate patrons about the sustainable choices offered each day and where the food is coming from.

“So it's not always organic and it's not always local, but we always want that story there to tell our customers why we chose what we chose. Being able to do that every day allows people to see that we would love to serve organic – and sometimes we can do that, sometimes it's affordable, but other times it's not and here's where we got it from. And being able to tell you that story is huge,” Lazarus reported.

Every retail location is within the management of the UCen department at UCSB. “We are a much smaller entity than housing and dining,” Lazarus informed me. They have some locations called “self-op” that they operate themselves and then there are some that are lease tenants. According to Lazarus, the landlord-renter contract has a list of sustainable goals spelled out, such as they have to use compostables, they have to buy local as much as they can, etc., but they are not his employees. The UCen manages 12 retail locations on campus including convenience stores, cafes, and coffee shops, as well as the catering operations they manage. A cook by training, Lazarus conveyed, “We cannot afford an in-house dietician like Housing does so we just try and do the best we can. There's definitely some room for improvement there.” Regarding demand, he related that “we're definitely listening to our customers, and we get feedback in a very real way in that if people don't like it they just won't buy it anymore.” Lazarus explained how one of the biggest driving factors of development is being able to make cleaner, more

sustainable products in the commissary kitchen instead of bringing in products from outside. “If we think we can make a better, cleaner product using local or organic options in-house and replace something that people are buying, such as a cliff bar, then we do that,” Lazarus expounded.

Lazarus informed me that a new position was recently created – Associate Vice Chancellor – that oversees both UCen Dining and the Dining Services within Housing, “So we’re hoping in the future to have a lot more cooperation between the two.” UCSB Residential Dining Services is comprised of four different dining commons: Carrillo, De La Guerra, Ortega, and Portola. Danielle Kemp, Dietician for Dining Services, says, “Each dining hall has their own menu and their own cycle. De La Guerra is one of the halls and they have a Taqueria, they are well known for that. Ortega does sushi, paninis, salad bar, things like that. Portola is a little bit further away and they do theme meals and the staff will dress up. They are all very different.”

UCSB’s Earth Friendly Dining is their commitment to customers consisting of “menu items and offerings made from scratch with fresh, natural and seasonal ingredients, with minimal additives, processing and pesticide use. Our dedication to wellness – personal and environmental – includes offering a large variety of healthy and sustainable food choices.” Kemp elucidated that, “Menu development is driven by our customers, how much it’s going to cost – we have specific targets for our meals for our budget – and then sustainability goals as well. It’s also driven by the weather.” There are many other different things that drive development as well,

including the staple products that they have every day and the four-week cycle menu that also changes every quarter.

Kemp went on to say that, "Dining and food services is definitely influenced a lot by being in California. Where we are located with all of our local farmers and what we're able to procure – it drives a lot of what we're able to purchase. We'll see other universities that are trying to implement a similar program or procuring from something like Harvest Santa Barbara, like a third party that is able to go collect the produce, and it is very difficult for them and not as feasible. Our location drives a lot of our menu and what we're able to offer."

According to Lovegreen, Bonnie Crouse was her food coordinator in Housing and Dining when Crouse was Assistant Director of Residential Dining (she has since retired). In October 2009, UCSB Dining Services hosted a majority of events for the national Campus Sustainability Day and in an article from the Daily Nexus, Crouse said the facility's other sustainable projects include increasing local food purchases as well as creating a compost initiative (McNerney). According to Crouse, "UCSB is reducing its carbon footprint by purchasing locally grown organic crops, as well as fish that are trapped sustainably" (McNerney). She went on to say that eliminating the use of trays from the dining experience has been one of Housing & Residential Services' most successful ventures to date. Crouse said, "tray-less dining is showing great results as far as saving, as there has been a huge reduction in the amount of food waste" (McNerney). Lovegreen recalled that Crouse was adamant about getting locally grown organics into the food offerings at UCSB. "I have to hand it to Bonnie for being such a champion in this whole thing with trying to create contracts with local farmers." When the university could not get the volume and the quality that they needed, Crouse brought farmers together and created this collective group of farmers that then became the organization Harvest Santa Barbara.

Lovegreen said that this new organization made it possible for UCSB to get the volume of food that was needed and UCSB was great partnership for Harvest Santa Barbara as well. According to Lovegreen, Harvest Santa Barbara has grown up as an organization and cannot even handle the demand they have locally, which is great because that gave the farmers a lot of local work and kept the food local. “It’s a total success story,” she said, “We are actually using that story system wide to see if we can get that concept going at the other UC campuses.” There is currently a team working on implementing this concept at all ten of the UC campuses. “We also have a faculty member that is imbedded in climate and food and he [David Cleveland] was included in the conversations so everybody understood the climate impact of choosing local food sources,” Lovegreen explained.

In an article from *The UC Santa Barbara Current*, Julie Cohen discusses a case study of UCSB’s residential dining services that shows how serving local and sustainable produce benefits the community at large. “As the largest purchaser of wholesale produce in Santa Barbara County, UC Santa Barbara’s residential dining services provided the perfect avenue for a pilot project incorporating local pesticide-free or certified organic produce in an institutional setting” (Cohen). A group of students approached environmental studies professor David Cleveland about becoming a faculty adviser for student-led sustainable living classes, as they wanted to explore how to bring more local organic food in the dining halls (Cohen). In 2010, Cleveland and a group of student researchers began documenting the process. Around this time, an UC-wide initiative to purchase local produce was also taking place, as well as the development of Harvest Santa Barbara. According to

Cohen, Santa Barbara County farmers were in need of an alternative local food hub to wholesale their produce to local institutional users. Farmer Direct Produce (FDP – now Harvest Santa Barbara – filled that gap by serving as the wholesale link between farmers and UCSB and other outlets (Cohen). UCSB dining services began small, adding five or six local and organic items to the salad bar and then scaling up from there – which ultimately turned out to be the key to the project’s success. “You always have to begin where you are; you can’t make a total radical transformation. You figure out how to gradually move in the direction you want to go and then make incremental changes,” Cleveland said (Cohen). “We have different offerings throughout the year, they have the whole calendar set up and they have done a beautiful job of the whole thing. It took a lot of years for us to negotiate that whole contract, but they had the tenacity to just stick with it and make it happen,” Lovegreen said.

“As far as the sustainability aspect, I think there has definitely been a drive in our community to have local, sustainable produce,” Kemp stated. UCSB has already passed the goal to meet 20% sustainable food by 2020 a long time ago, but the main thing that is pushing that 20% is the produce that they purchase. “Our local produce vendor Harvest Santa Barbara is very unique to our university,” Kemp continued. Kemp also explained that during the 2013-14 year, 35% of UCSB’s food total was sustainable based on the sustainable guidelines that are set by the Office of the President: 42% of produce came from 250 miles and 40% came from within 150 miles. “Most of our dairy comes locally as well because the dairy cows are in Bakersfield so the processing is all up there and then it comes down to us,” Kemp

said. UCSB has a campus sustainability plan that “we are in the process of updating,” Lovegreen added. UCSB has a zero percent waste goal by 2020 and each UC campus has committed to 20% sustainable food purchases by 2020. In 2009, UC added sustainable foodservice guidelines to its Policy on Sustainable Practices. The new guidelines require each campus to obtain third-party green business certification where such programs are available and commit the university to purchasing 20% of its food from sustainable sources.

Janet Napolitano is the current President of the University of California, and she has set out goals for the UC regarding sustainable purchasing. However, Lazarus related “Sustainable means a lot of different things to different people,” including how universities manage their sustainable purchasing procedures. According to Lazarus, the way UCSB defines sustainable purchasing is “it’s either local, meaning it’s been grown, processed, and purchased within 250 miles of us, or it’s organic – but organic from Peru still counts as sustainable,” Lazarus rationalized. Fish is a big part of food culture in Santa Barbara, and Lazarus stated how it is even harder to define sustainability in terms of fish. “I think everyone uses Monterey Bay Aquarium Sustainable Seafood Watch program. There are a couple of other competing programs that are well respected also but it’s a pretty subjective thing,” Lazarus felt. Salty Girl Seafood is a sustainable seafood company that was founded at the Bren School at UCSB. The Bren School is an environmental science and management professional school and has what is called the Eco-Entrepreneurship Program, which aims at trying to solve an environmental problem as well as a customer problem. According to co-founder Norah Eddy, Salty Girl was developed as a school

project and then was launched in 2014 when she and her business partner, Laura Johnson, graduated from UCSB.

The motivation for starting the business was to provide a market-based incentive to drive sustainability and to change behavior.

“What you see in a lot of fisheries is that the fishermen are not incentivized to make these costly changes to the way that they are catching fish or how many fish they’re catching. A lot of people are looking for, how do we get a premium or how do you minimize the variability within a fishing season or a fishery. That was the impetus of the business and that is what we are focused on. That’s the big goal,” said Eddy.

For Salty Girl, scalability and getting to a certain size means they have a bigger impact. The business began as a direct from fishermen to food service (i.e. restaurants), and pivoted in May of 2015 to developing a retail line. Eddy says that they work closely with John Lazarus at UCSB and had initially hypothesized that they would work with more campuses, but because of the transition from the original model to the current model, they will likely focus more on their retail line and leverage the brand awareness to provide greater access to sustainable, traceable seafood in local grocery stores.

“We will keep UCSB because we love UCSB and they’ve been so good to us. There is such a huge amount of demand that there’s always a potential that we would come back to doing the original model because I think, particularly in the UC system, there’s a lot going on right now with sustainability and supply chains and the food sector, which is really exciting to see,” stated Eddy.

During the school year, Salty Girl typically sells around 100 pounds of fish to UCSB weekly.

Eddy elucidated, “The really interesting thing about starting the company here in Santa Barbara is that we have people from all over the country that are hitting us up because they love what we are doing.” The reach extends far beyond an

environmentally conscious community. Eddy stated that, “We talk a lot about the millennial generation and how millennials want to make informed decisions as they are also a price sensitive group, but they demand a lot of information. They want to be putting their money where their mouth is. And we are members of that generation and we understand that very well.” Salty Girl looks beyond targeting the Santa Barbara, eco-conscious community, which is why they built a lifestyle brand. “The brand is more than just seafood, it’s about the whole story of where your fish comes from. We do this because we love the ocean and we love being on the water. We do this because we want to give back. We’re a 1% for the planet company,” Eddy explained. Moreover, Eddy rationalized that they try not to pigeonhole themselves into localism or local product, because “you can’t have a scalable business if you’re focused on local. I think local is really important for a lot of people and it can be important for a lot of products, but it is a muddled term,” she said.

In terms of sustainability, Salty Girl approaches it in two ways. There is the work that has been done by groups like Monterey Bay Aquarium Seafood Watch (with whom they are partnered) and the Marine Stewardship Council who certify things like Alaska Pollock – which are really well managed fisheries that can afford expensive certification. Eddy explained they also approach it from the other angle of small-scale fisheries.

“We know that there are a lot of concerns with these fisheries, and these are the places that need the incentives to change behavior. There are also a lot of innovative fishermen out there who are doing good things and aren’t getting recognition. We rely on our expertise and our resources here in the scientific community and the NGO community, and then we have a set of guiding principles in where we feel comfortable sourcing and where we don’t.”

If the marine stewardship council and seafood watch have green listed something, then they feel pretty comfortable about that product, but what Salty Girl has found is that even in California where there is a lot of management in place and there has been a lot of certifications and reviews, they find species all the time where there is no information or assessment on it and then they have to make the call on that. “It’s not really fair to the fishermen for us to say, Seafood Watch didn’t have time so we can’t bother to buy that from you. And for us, we really want to make change, so only sourcing from things that are already green listed doesn’t really push the needle in a positive direction it just kind of maintains the status quo,” Eddy recounted. Lazarus added that sustainable purchasing is a very marketable thing and how Salty Girl is one such example.

UC President Janet Napolitano, together with UC’s 10 chancellors, launched the UC Global Food Initiative in July 2014. The initiative addresses one of the most critical issues of our time: how to sustainably and nutritiously feed a world population expected to reach eight billion by 2025. The initiative aligns the university’s research, outreach, and operations in a sustained effort to develop, demonstrate and export solutions — throughout California, the United States, and the world — for food security, health, and sustainability. “Janet Napolitano’s idea is to nutritionally and sustainably feed the world by 2025,” Lovegreen said. “Central California is where most of the fruits and vegetables for the planet come from, so she really is talking about the entire world.” There are more than 20 subcommittees and working groups for the initiative within the UC system drawing on the efforts of faculty, students and staff, as well as engagement with the community. “As food is a

large part of the President's initiatives, we've been trying to achieve a broader system with the university and food to connect to the Santa Barbara community. One of the things Santa Barbara is good at is taking science and turning it into regular communication," Lovegreen related.

Tuyen Nguyen, Associated Students Food Bank Coordinator, works with food insecurity and connecting students with resources on campus and in the community. According to Jewel Snavelly, Sustainability Coordinator for The Green Initiative Fund, "UCSB has a really great food bank on campus. It's really beautiful here but it's also really expensive to live here. Many students are living on ramen and not getting enough access to fruits and vegetables and healthy eating etc. so food insecurity is a big concern." The food bank has been working through the Global Food Initiative to secure more funding for resources for the food bank and food insecurities on campus. "Our students are also having to head out for the bigger food bank in Santa Barbara. We currently don't have room for things such as fresh produce at a high volume. Tuyen received a grant to get a refrigerator but we don't have room to put the refrigerator anywhere," Lovegreen related. According to Nguyen, the UCSB food pantry was created by students and is a membership of the Santa Barbara Food Bank. The food pantry provides and distributes nonperishable food and toiletries to undergraduate and graduate students in need. It is self-identification of need, essentially; however, the person needs to be verified as a registered student and then file a self-declaration of income form, which most students are able to meet. "In the past two years we've started to incorporate fresh produce, but funding is limited and our number of students we service has

increased, so it's one of those things where we're looking to feed folks as nutritionally as possible, but one of the things that's important to our student leaders is that students are able to access it free of hassle," said Nguyen. She added further, "It is important to recognize that hunger is a bi-product of larger institutional issues as well as other issues that folks are dealing with. Students are dealing with the same issues as anyone in the community or anyone living in our society are dealing with when they're experiencing hunger." The cost of attendance right now in public institutions like the UC is the main factor as to why students are coming through the food pantry, according to Nguyen. In the past year, the food pantry has been engaged in the UC Global Food Initiative as a larger effort, and now each UC campus is building food security plans within the campus and connecting with the outer community. "I think the community has a pretty big impact on the campus," Snaveley felt, "We live in an area in California where we have pretty good growing conditions so we do have a lot of local food that we can source, and Santa Barbara County is pretty progressive in supporting sustainability. Sometimes UCSB is seen as a big elephant that uses resources in the county, so we have this outside pressure to be even greener and more environmentally friendly. So that always pushes us forward I think as a campus. They keep us accountable."

Student Interest and Involvement

“We could not do anything without students,” Lovegreen stated. Students are embedded through the entire food and sustainability conversation, both undergraduate and graduate. The Department of Public Worms has a small garden and there are some plots for students where they can have their own plot and grow their own food. “We’ve been trying to work on a bigger farm concept for the campus,” Lovegreen related. She went on to say that the students are typically always encouraging for better, organic options and student interest has always been positive regarding food. Most of the students engaged in sustainability are through Associated Students – AS Food Bank, AS Recycling, and AS Department of Public Worms. They have a staff program advisor and have been successful in including fees for the Department of Public Worms in their tuition. Lovegreen stressed that getting funds is a big obstacle. The Green Initiative fund is also part of students’ tuition and each year students, faculty, and staff can apply for grants through the fund. A student majority committee chooses the project and awards; they just have to have a positive environmental impact.

According to Snively, who manages the fund, UCSB has to go up for reaffirmation every four years and last year 73% of students voted to keep it going. “It’s a really good thing that students like a lot on campus because it offers them a resource for projects that they’re interested in. I think it’s great because it’s student-led with a student majority committee choosing the projects,” Snively told me, “We’re lucky that students have been the leaders in sustainability.” Back in 2002, UCSB had no sustainability policies and then several students built a coalition

together with the environmental affairs board and actually formed the Student Sustainability Coalition. According to Snively, it expanded from the UC system to all of California campuses and they really pushed the UC regions and the UC Office of the President to adopt sustainability policy. At first they were focusing on energy efficiency and renewable energy standards, but now there are eight or nine different sustainability policies, including those focused on food. "We're lucky because we have a historic effort of students pushing for things like that and leading the movement," Snively related.

UCSB Dietician and Systems Analyst Danielle Kemp said she also sees students engaged in sustainability efforts and concerned with the nutritional value of their food and where it is coming from. UCSB has a program called Net Nutrition that allows students to view the nutrition content of anything that is offered in the dining commons and they can do it online on their smartphone or in the kiosks in the dining commons. "There's a core group of people that are very, very interested," Kemp informed me. In addition to that they have a program called Goucho Bright Bite where they have identified the healthiest option for students. There is also the Goucho Bright Meal, which is a recommended meal if students do not know what is healthy or do not have time to figure it out for themselves, they can follow that meal plan.

Challenges and Improvements

Lovegreen insisted that sustainability has to be doable for people by trying to make it as realistic and inexpensive as possible. “We’re always working on a shoestring and trying to make an example of that shoestring and what we can do with it,” she detailed. Lazarus also felt that cost is the biggest obstacle. “I would love to serve all organic and local and not have to raise prices, but I can’t do that,” Lazarus maintained. According to Snavelly, there are also a lot of bureaucratic issues to deal with, such as environmental health and safety and insurance requirements. “There’s a lot of channels that aren’t necessarily clear of what you need to do next or what requirements you have to fill. That’s always been a struggle for our campus and everything takes a while,” Snavelly said.

Kemp stated, “We are always looking at trying to be more sustainable, providing more nutritious foods and making changes to our menus. One thing we are really trying to focus on this next year is reducing our food waste by doing food audits and things like that. It’s really different in this profession because you are forecasting it.” Lazarus confirmed Kemp’s opinion on reducing waste and also insisted that vending is another issue that needs to be tackled, as “it is probably the least sustainable part just because everything is packaged and has preservatives in it.” Lovegreen felt that campus sustainability right now is in a “weird place with its budget.” There has been conversation about having a permanent budget but no final decision has been made.

“The Office of the President has been pretty good about funding the food initiative so far, but it is in particular areas. Which is great because it will help us all move forward but we still have to put new proposals in to see if we can get the next set of dollars coming in for specific things. There are just so many pieces that we’re working on. Coordination is one of the biggest things in this regard. It’s the perfect time to be here and be in this conversation,” Lovegreen described.

CHAPTER 5

UNIVERSITY OF ALASKA ANCHORAGE

UAA's Role in Building a Sustainable Food Culture

University of Alaska Anchorage has a contract with a private company called NANA Management that is a majority owned Alaskan Native Corporation. They provide all of the catering and dining on campus. Seawolf Dining & Catering is a self-supporting entity under the direction of University Housing, Dining & Conference Services and operated by NMS (a joint venture between a local Alaska Native corporation, NANA, and Sodexo). Seawolf Dining's website provides this statement, "Our goal is to provide quality food and services to residential and commuter students, faculty, staff, and the community." Students living in residential services are required to purchase a meal plan via UAOnline. Several other meal plan options are available for residential and commuter students.

Dining services also have a program called Meals-to-Go which is a way for on-campus students to take their meal from the Creekside Eatery and eat elsewhere. Students bring a reusable container to the eatery, fill it up with an entrée, two sides, a salad, and a dessert, and then when they return the next time they bring the unwashed container and exchange it for a sanitized one. Dining services

implemented this program to reduce the use of Styrofoam and eliminate trash buildup.

UAA also has an Office of Sustainability that is dedicated to building a future for UAA and the Great Land through environmentally wise, economically sound, and socially responsible actions. The Office was established in January of 2009 and has made great efforts to promote sustainability awareness across UAA's campus and the community. UAA strives to maintain sustainable models for northern universities through research, action, and collaboration. The university encourages students to think holistically, in terms of systems and interconnections among different disciplines and be better equipped to adapt to change. Director of Housing and Dining David Weaver stated that, "students drive menu development and their interests shape and create change on campus in regards to food and sustainability."

UAA also encourages undergraduates to work with professors to pursue research projects with an emphasis in sustainability. On UAA's website, students can search for courses that have focus in sustainability as well as discover some of UAA's sustainability clubs such as the UAA Sustainability Club, UAA Green Fee Board, and the UAA Sustainability Action Board.

In 2014, UAA implemented Sustainability Week, highlighting and promoting sustainability initiatives on campus with the goal of getting more people involved. Each day centers around one of four themes: reducing/reusing/recycling, local foods, clean energy, and bicycles. Office of Sustainability Director Paula Williams emphasized the importance of local food culture and brought in Saskia Esslinger, who ate nothing but local food for an entire year in Alaska, to host a workshop on

eating local. In rural Alaska native communities, wild fish and game are essential for food security, and the most critical concern Alaskans hold for the future of food is the security of their food supply. Approximately 95 percent of all food consumed in Alaska is shipped from elsewhere and estimates state that the state's food supply would only last about three to five days if some natural disaster affected the current infrastructure. According to the Alaska Food Policy Council, this food is also shipped through long supply chains and over \$1.9 billion dollars leaves the state each year as Alaskans eat. For example, even when Alaskans want to purchase Alaska seafood, they discover it has been shipped to Seattle for processing, and then shipped back to their local market for purchase. Today, supermarkets in Alaska feature many of the same foods that can be obtained in any urban area of the U.S. — yet with added delivery costs. A once-thriving dairy industry has been decimated by imports from Washington State and most Anchorage restaurants as well as dining services at UAA feature meat that was raised in the Lower 48.

Williams believed this “shows how important it is for Alaskans to support local farmers.” Weaver added that the vast majority of food that is consumed in Alaska comes from out of state due to climate challenges and related issues. However, there are some food items such as carrots, potatoes, and beets that are locally grown year-round and UAA always tries to procure those. Seafood is also regionally specific to Alaska, and while the Varsity Sports Grill on campus focuses on locally grown items, many other locations on campus are unable to provide locally sourced seafood to students, faculty, and staff.

Challenges and Improvements

UAA has many goals and initiatives set forth to further the university's sustainable elements and look forward to a positive future. Weaver stressed that he wants to increase bulk purchasing of locally sourced foods as well as strategically integrate Alaska-grown dairy, fair-trade coffee, and composting into the system. Timothy Doeblner, professor and director of the Culinary Arts, Hospitality, Dietetics and Nutrition Program explained how Alaska has virgin soil:

“Alaska has glacial soil that is high in minerals. I’ve always thought it would be amazing to export things that are 100% organic because we don’t have any huge agriculture here or the potential for food to be exposed to GMOs or things like that. I think there is the potential for growing more of our own food because people here in Alaska are becoming more aware and concerned with where their food is coming from.”

Doeblner also stated that as climate change continues, Alaska is warming and has the potential to grow more food. Assistant Professor of Public Health Liz Hodges Snyder added that she also wants to incorporate more classes and imbed sustainability into more of the curriculum to engage students. “Increasing awareness, making food more visible, and making sure people know where it comes from is extremely important, she says.” Moreover, Doeblner said that, “it is a consumer issue. When consumers start demanding things, more will change. The consumer, the administrator, the student, the faculty needs to make their demands and not settle for potato chips and red bull.” He said that if people start walking the talk and getting real, that is when things will change.

UAA faces many obstacles in overcoming the geographic and climatic divide that inhibits its food systems. However, there is more than just climate and geographic region that contributes to an institution's sustainable food system. With

the advancement of student interest and implementation of new ideas and curriculum changes, UAA has the capacity to further its sustainable practices.

CHAPTER 6

CONCLUSION

The objective of this research was to present a regional food system assessment of University of British Columbia, University of California Santa Barbara, and University of Alaska Anchorage where I identified barriers that hinder sustainability and presented opportunities that can be implemented toward a more sustainable local food system. I hope this study can be used as a tool for other universities, specifically Western Kentucky University, to make transitions toward food system sustainability.

My research attends to issues of scale—local, regional, and even international—when seeking to use food to build sustainable institutions. UBC incorporates sustainability into every part of campus operations and the student curriculum as well as using the UBC Farm to source over 50% of local food and implement student-led projects. Due to the capacity of the university, UBC's faculty understands that communication is still a large issue in increasing awareness and participation in sustainability, as well as balancing the three pillars of sustainability. UCSB currently sources much of its produce and seafood from local, sustainable sources as well as utilizing the Green Initiative Fund to finance student and faculty

projects to increase sustainability and food procurement as well as waste management on campus. UCSB faces several budgetary factors as well as their goal of reducing food waste and managing communication. UAA is still in the beginning phases of implementing sustainability initiatives and faces many setbacks due to the climate and geographic divide with the continental United States. Though the university is increasingly implementing more local foods and furthering student involvement, they have many more goals to achieve before they become a leader in sustainable food systems.

Each university utilizes their campus as a living laboratory to explore and experiment with ideas before integrating them into the community. While Santa Barbara and Vancouver are located on the Pacific Coast and benefit from warm weather suitable for plentiful food production and local procurement, Alaska suffers from a more adverse climate with shorter and cooler summers. UAA still faces a barrier in that they export much of their seafood and have to import much of their food to campus. Nevertheless, they are in a period of growth and the demand for more local, sustainable, and organic foods is increasing within the university. While UBC and UCSB have a more robust local food culture, UCSB has truly engaged the community through organizations like Harvest Santa Barbara and Salty Girl Seafood. UBC wants to become even more engaged with the rest of Vancouver and use the UBC Farm to connect campus and community. Richer discussed how generally in Canada and in BC in particular, getting direct farmer contact is a lot more difficult than in the United States. She claimed that American universities have more advantages in different regions with more co-ops and the mechanization for farmers

to collaborate, as exemplified by Harvest Santa Barbara and its relationship with UCSB. Though Vancouver and Santa Barbara share many similar resources, the governmental and social structure affect food procurement at each university as exemplified by UBC's effort to eliminate waste due to the ban on organics in the landfill.

Each of these institutions has its own areas of expertise and individual room for growth. Communication and engagement are two major factors that each university pinpointed as vital areas needed for success, in addition to budgetary concerns. In order for students and the community to be aware of food and sustainability related issues, there must be an overarching mode of communication to engage those unaware of efforts being made, and encourage those already aware to do more. An fundamental factor pointed out by Campbell is the integration of all three pillars of sustainability in ensuring that the environmental and social pillars are achievable financially, and to be able to move through the political climate of the university to implement sustainable features into the budget so that it is realistic and sustainable for the long-term. Though each of these universities shares a similar location and has access to many of the same resources, the philosophical nature of the people in each place is different along with the social and governmental structure of each institution. This assessment recognizes that climate and physical region are not limiting factors in sustainable food systems, and identifies that the system of distribution and implementation of the three pillars of sustainability within a university plays a key role in an institution's sustainable food practices.

CHAPTER 7

NEXT STEPS

WKU's Sustainable Food Culture and Future Research

Western Kentucky University does not fall directly in line with any of these three universities, but possesses elements of each and has the capacity to learn from each individual institution. I would place WKU's sustainable food systems efforts in between those of UAA and UCSB, with UBC being the furthest along.

WKU is well situated to become more sustainable. WKU has an Office of Sustainability with a mission statement to “promote a culture of sustainability at WKU, integrating principles of ecological integrity and social equity into academics, practices, and partnerships.” The goal of the Office is to “ensure that WKU is an institution that provides innovative solutions to global challenges, prepares students as engaged and responsible citizens, and observes best practices in campus operations and services.” Christian Ryan, WKU Sustainability Coordinator, has played an integral role in promoting sustainability at WKU. Ryan has been in her current position for eight years after completing a Masters thesis on Western Kentucky University's sustainability. She related to me that, “We have observed a culture shift on our campus by incorporating sustainability as a core commitment in

recent years. That being said, most of our students still don't know that the sustainability program exists." There is exceptional room for growth regarding sustainability at WKU, though some successful efforts are currently in place.

WKU is declared as a Fair Trade University since 2011 and is one of 350 universities that have endorsed the Tallories Declaration in recognizing the role of universities in addressing environmental degradation and other environmental problems, and supporting Fair Trade as a way to meet the third action step to educate for environmentally responsible citizenship. According to the 2015 WKU Sustainability Report, "2015 was a great year for WKU Sustainability." Agriculture Commissioner James Comer officially inducted WKU as the 10th member of the Kentucky Department of Agriculture's Farm to Campus Program in March 2015, which is the official state program for connecting Kentucky farmers and food producers with Kentucky higher education institutions. Under this program, the Kentucky Department of Agriculture helps institutions locate and purchase fresh Kentucky Proud products to serve in their food service systems. According to the Sustainability Report, WKU has demonstrated notable practices regarding sustainability in academics (access to research), operations (landscape), and operations (biodiversity). In 2015, the Student Government Association demonstrated student interest and commitment to a more sustainable campus by creating a SGA Sustainability Committee to identify opportunities for positive change on campus. WKU has an organization called Project Grow that operates a community garden at the Office of Sustainability. Project Grow is also implementing and encouraging edible landscape options on campus. Project Grow encourages

volunteers to come help out in the garden every Friday and provides food for the Food Pantry on campus. From 2014 to 2015, visits to the Pantry increased by 260%.

Aramark currently manages the WKU Restaurant and Catering Group. Sustainable dining efforts at WKU include the following: all food waste from the kitchen and diners is composted; the waste is pulped, collected in a container, and delivered to the Baker Arboretum where it is finished and used on-site for soil enrichment. Fresh Food Company utilizes tray-less dining as well as recycled napkins and paper straws. Fresh is also working on sourcing more local food, though this is a work in progress as their approach is to purchase direct from farmers. WKU also has its own farm and used oil from Fresh is delivered to the farm, where Engineering students turn it into biodiesel for farm equipment. All of the campus coffee shops feature Udderly Kentucky Milk and feature Fair Trade coffee options. Ryan said that there is no current commitment in WKU's dining contract to source local; however, dining services has made their own commitment to increase their local sourcing by 5% each year.

However, WKU is still working to reduce the campus carbon footprint and integrate more sustainable and local food options into the campus offerings. While Aramark currently works with WKU to implement sustainable food practices, there are still many obstacles to working with a corporation and integrating a higher percentage of local and sustainable food offerings into campus dining. Although WKU has greatly increased its sustainable components and local food procurement within the last five years, there still exists a gap in communicating ideas from faculty and students to the rest of campus. While WKU does have an Office of Sustainability,

there are no sustainability initiatives imbedded throughout the entire curriculum nor does the university engage the entire student population. Ryan emphasized the importance of working with local farmers, increasing student interest, and her desire to assist faculty in implementing sustainability initiatives into their curriculum. Looking at the social, economic, and environmental pillars of sustainability and analyzing how UBC, UCSB, and UAA have implemented them into their sustainable campus plans serve as a guiding mechanism for WKU's sustainable food culture.

WKU is currently in the position to learn from best practices at other universities and implement similar ideas. If located on the Pacific Coast, WKU would likely have access to this culture of local seafood that is nonexistent at present. However, WKU does have the capacity to engage with local farms and farmers to procure a greater abundance of local and sustainable dairy and produce items. Using UCSB's relationship with Harvest Santa Barbara as a model, WKU could encourage greater collaboration with the local community and integrate a similar system. WKU also has the potential to integrate sustainability initiatives into all campus operations and curriculums as evidenced by UBC. As WKU's current President Gary Ransdell is retiring this year, the presence of a new President will play a formative role in the direction of sustainability at WKU. Student involvement can continue to encourage and facilitate positive change.

Institutions of higher learning have the capacity to be great leaders in food sustainability. This assessment reveals numerous opportunities and solutions towards integrating sustainability into the curriculum and increasing sustainable

food operations at WKU as well as other campuses globally. Based on my assessment, sustainability can be fully institutionalized when students advocate for policy changes and align with faculty and staff to incorporate all three pillars of sustainability into campus operations and academics. Universities then can serve as learning laboratories to test ideas, integrate the surrounding community, and be true drivers of sustainable food systems. Possibilities for change at WKU specifically range from physical changes like sorting bins for waste products, to operational and curriculum changes, as well as more engagement with the community. WKU could greatly benefit from a new President who advocates for and encourages campus sustainability, specifically within the area of food and land management.

Advancement for sustainability at WKU would also benefit by utilizing sustainability as a guiding force throughout every process at WKU from building operations, dining, WKU Master Plan, and curriculum. Sustainability should set the tone for both operations and academics in an effort to evoke all three pillars of sustainability and engage the community.

As sustainability is a word that people use to describe many different types of operations and systems, the three-pillar approach of economic, environmental, and social sustainability is what I have found to be the most useful and appropriate way to determine if universities are operating in a “sustainable” way. I hope to publish this research to contribute to Jeremy Caradonna’s message of constructively responding to the global ecological crisis, by informing others about sustainable university food systems and demonstrating that they can serve as drivers of sustainability. I would like to advance this research in the future by further

investigating more university food systems and determining how these institutions can become true leaders and drivers of sustainable food systems.

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