Abstract
Universities play a key role in developing the leaders necessary to bring about a more just and sustainable world. This field report examines the development of student leaders participating in an interdisciplinary sustainable food systems program, SEED Wayne, at Wayne State University in Detroit, Michigan. The report explores the ways in which leadership skills are developed through participation in SEED Wayne’s activities, including Detroit FRESH, the Wayne State Wednesday Farmers Market, and campus gardens. The report also highlights related challenges and opportunities for growth.

Keywords: student leadership, sustainability, food systems, higher education, interdisciplinary
Cultivating Student Leadership in Sustainable Food Systems

Higher education institutions are increasingly stepping up to address issues surrounding sustainability. Indeed, a number of declarations and university policies have stated a commitment towards sustainability in higher education. The Talloires Declaration in 1990 was among the first such statements made by university administrators. The declaration is a call to responsible action, stating:

Universities educate most of the people who develop and manage society’s institutions. For this reason, universities bear profound responsibilities to increase the awareness, knowledge, technologies and tools to create an environmentally sustainable future (Talloires Declaration 1990).

To date, the Declaration has been signed by 433 higher education institutions in the United States and abroad. In laying out university policies to support sustainability-related teaching and research, it highlights a need for an interdisciplinary approach to sustainability that involves a wide array of stakeholders, including students.

In order for institutions of higher education to effectively address sustainability in a more holistic way, student leadership is pivotal (Shriberg 2002). Evaluating several case studies, Shriberg (2002, 287) notes that campus environmental efforts are typically “driven by individuals low in the organizational hierarchy,” and students typically are the most committed to sustainability. Therefore, student leaders are indispensable to university-based sustainability initiatives and in defining roles that higher education institutions will play in developing a more sustainable and just society.

However, for such campus efforts to be successful, students must find ways to develop and manifest leadership skills. As leadership is inherently a group phenomenon—in that there are no “leaders” without potential or actual “followers”—creating dialogue that bridges diverse backgrounds and academic disciplines is an essential step towards building responsible leadership (Dugan and Komives 2010). College and university programs can cultivate student leadership by adopting a social change model of leadership, defined as “a purposeful, collaborative, values-based process that results in positive social change” (Komives et al. 2009, xii).

SEED Wayne, which stands for Sustainable Food Systems Education and Engagement in Detroit and Wayne State University, offers one such example of an interdisciplinary program addressing campus and community sustainability through student involvement and leadership in education, research, engagement and campus operations. Through the use and analysis of structured interviews with SEED Wayne staff and volunteers, informal conversations with engaged students, and my own experiences as a SEED Wayne staff member and volunteer, this report outlines SEED Wayne’s development of student leadership through a few of its projects on the campus of Wayne State and in the surrounding community.

Context

Located in the city of Detroit, Wayne State University (WSU) is the largest inner-
city public research university in Michigan. The institution’s mission is “to create knowledge and prepare a diverse body of students to excel in an increasingly complex and global society” (Wayne State University, n.d.). It seeks to do so “by combining the academic excellence of a major research university with the practical experience of an institution that by its history, location, and diversity represents a microcosm of the world we live in.” WSU offers 400 academic programs through 13 schools and colleges to nearly 32,000 students.

While the mission itself does not directly address sustainability or student leadership, it does recognize the complexities of living in a “global society.” WSU has long had an undergraduate Environmental Science program, a graduate Ecology program, and other disciplinary and interdisciplinary programs that address selected aspects of sustainability. It was not until 2008, however, when SEED Wayne was formed, that the university began to offer a broad interdisciplinary program that addresses sustainability issues with the express goal of building student leadership through engagement in teaching, research, community service, and campus operations.

The Program

Over the years, as the civic meaning of the university has been eroded by market-driven imperatives (White and Hauck 2000), a burgeoning food movement has emerged to engage a new generation of activists. Despite the challenges of working in resource-constrained environments that emphasize economic efficiency over all else, the growing food movement nationwide has engendered hope for those who believe that universities should help lead efforts to develop sustainable food systems. SEED Wayne has, from its inception, been rooted in the belief that universities have a role to play not only in training the future workforce, but also in cultivating civic engagement.

SEED Wayne officially began in 2008 with a university-community challenge grant through the Ford Motor Company Fund. The program operates with the core belief that universities ought to engage with their respective communities in exploring collaborative solutions to pertinent problems. Dialogue with community members, leaders, and organizations plays an essential role in this work, as SEED Wayne has attempted to forge an alternative to the more conventional top-down relationship that often exists between universities and the communities in which they are situated. Many of SEED Wayne’s projects have arisen out of discussions with community members and organizations in which SEED Wayne’s role is developed and evaluated based upon community needs.

This paradigm of collaborative engagement has applied not only to SEED Wayne’s work in the community, but also its work and functioning within the university itself, as evinced in SEED Wayne’s definition of sustainability through the “4 Es”: economic empowerment, environmental regeneration, social equity, and community engagement. These four aspects of sustainability necessarily involve a wide variety of academic disciplines.

The initiative includes a Director and, in the 2012 market season, six employees (all
but one of whom are university students), and approximately 30 student volunteers. Under the guidance of SEED Wayne’s Director, the employees carry out a range of day-to-day activities related to SEED Wayne’s projects, including coordinating volunteers, conducting outreach, planning events, and collecting data. The Director, Dr. Kami Pothukuchi, oversees all of SEED Wayne’s activities and finances, and, in accordance with its mission, guides the sustainable growth of the program. Students who join SEED Wayne as employees and volunteers come from across the campus. An incomplete list of the fields they represent includes: Urban Planning, Biology, English, Philosophy, Environmental Science, Education, Social Work, Psychology, Engineering, Industrial Design, Library Science, and Communications. Additionally, SEED Wayne brings together students, alumni, staff, faculty, and community members in various activities.

**Detroit FRESH**

Detroit FRESH emerged out of discussions with clients of the Capuchin Soup Kitchen co-facilitated by Dr. Pothukuchi and staff of Earthworks Urban Farm, a project of the Capuchin Soup Kitchen. The Capuchin Soup Kitchen is located on Detroit’s eastside, an area that is particularly blighted due to recent decades of disinvestment and urban flight. The area served by Capuchin lacks adequate access to fresh and affordable food. Participants in these discussions primarily focused on how their neighborhoods served, or perhaps more significantly, did not serve, their food needs. They also discussed potential projects and initiatives that would be most helpful in meeting their neighborhoods’ food needs. Detroit FRESH arose out of recognition of the need to work with existent businesses and infrastructure to improve access to fresh foods, especially to benefit the youth of these neighborhoods who regularly visit corner stores and subsequently eat unhealthy foods after school.

The project began with undergraduate students assessing corner stores for their offerings and recruiting owners to carry fresh produce in one near-eastside neighborhood. The project gradually developed and, since then, the project has received external funding from the Erb Family Fund. Student volunteers now help conduct neighborhood outreach for participating stores, in which they engage youth and adults in conversations related to healthy eating. Currently, Detroit FRESH works with 18 liquor stores and gas stations (Figures 1 and 2). Each store agrees to carry more fruits and vegetables to varying degrees based primarily upon the store’s size, clientele, and enthusiasm of the owners. While certain stores have concentrated on less-perishable produce like potatoes and onions, others have stocked their stores with a wide array of fresh fruits and vegetables. The stores receive the produce through either their own sources or distributive connections facilitated by SEED Wayne. This particularly benefits the youth of these neighborhoods who regularly visit such stores after school and now may choose to purchase fruit in addition to, or instead of, the typical unhealthy food choices.
Figure 1. Corners Party Store, one of the first participants in Detroit FRESH

Photo: Dr. Kami Pothukuchi

Figure 2. The produce display in Corners Party Store

Photo: Dr. Kami Pothukuchi

Detroit FRESH facilitates essential leadership skills through structured interactions with various community constituents (e.g., storeowners, community leaders, neighborhood residents, and others) and through de-briefing conversations following events. By developing project logistics with community partners, collecting data at project sites, and sharing pertinent information with neighborhood residents, students apply their learning from classes related to urban studies,
health, and social sciences. Because many students in SEED Wayne come from middle-class suburban backgrounds, it is important that sustainability leadership bridge the gap between the campus and surrounding urban neighborhoods and also include skills in translating and adapting classroom learning to real world situations. In working on Detroit FRESH, these students are exposed to the many systemic injustices of poverty, social exclusion, and the paucity of healthy food choices; most begin to see the interconnections between these injustices. Thinking in terms of systems as opposed to individual components is a critical aspect of sustainability leadership. Not only must leaders think about the links between natural and built environments in terms of systems, but they must also apply this thinking to their actions. In doing so, students must also adapt their university-based learning to community contexts. Although all of SEED Wayne’s activities embody adaptive systems approaches, Detroit FRESH particularly excites students’ imaginations related to whole systems.

Student volunteers with Detroit FRESH are also involved in developing more multi-purpose and interactive approaches to nutrition education as part of the project’s outreach. For example, in 2011, SEED Wayne organized two Healthy Food Fairs, with six more occurring in 2012 (Figure 3). In conjunction with participating Detroit FRESH corner stores, the Healthy Food Fairs bring together student and staff volunteers from health-related programs at WSU such as the Pediatrics Prevention Center and the Mort Harris Recreation Center, youth participants from the Earthworks Urban Farm located on the city’s eastside, Eastern Market Corporation, and Gleaners Community Food Bank. Each of these organizations has a different mission, but in the fairs students see how these missions can overlap. This, in turn, furthers the students’ education and ability to think in terms of systems of inequality and the interconnection across institutions in society. The experience also highlights the importance of marrying neighborhood availability of healthy food with exploring what it takes to change entrenched behaviors.

Figure 3. Youth-led cooking demonstration at a 2011 Healthy Food Fair

Photo: Dr. Kami Pothukuchi
WSU Wednesday Farmers Market
Founded in 2008, the WSU Wednesday Farmers Market has a central goal of improving access to fresh and healthy foods for WSU and community members, while also supporting local farmers. The market offers a wide variety of fruits and vegetables, eggs, breads and other baked goods, as well as prepared ready-to-eat foods. The market focuses on improving healthy food access to disadvantaged communities and groups, while also seeking to maintain and increase the diversity of business owners and operators, particularly in terms of race and ethnicity, gender, and age (Pothukuchi 2012). The market increases access through participation in publicly funded nutrition programs, offering a shuttle that connects local senior complexes to the market, and offering monthly cooking demonstrations that feature market products prepared in healthy and convenient ways that make the unfamiliar produce itself more accessible. In 2012, the market featured 15 vendors, including 11 Detroit-based operations, five women-owned/led operations, and four operations that are owned or led by people of color. Around 1,000 customers visit the market each day, with an estimated $250,000 generated in revenues for vendors (Pothukuchi 2012).

One vendor in particular, the Grown in Detroit cooperative, routinely brings youth participants from around the city to the markets (Figure 4). Grown in Detroit, which sells produce that was grown without the use of synthetic chemicals on urban farms and gardens in Detroit, Hamtramck, and Highland Park, provides the opportunity for farmers to sell their produce as part of a marketed collective without having to rent their own market space. As this cooperative includes many urban farms with youth participants and leaders, youth regularly sell at the market during the summer months. These youth vendors are not only given leadership responsibilities associated with selling the produce of their own and other farms, but are also provided the opportunity to interact with the market’s diverse customers and vendors.

Figure 4. Youth vendors with Grown in Detroit

Photo: Dr. Kami Pothukuchi
Through the efforts of student volunteers, SEED Wayne strives to collect data on demonstrable benefits of the market, as well as to track figures related to the market. At markets, SEED volunteers count and survey customers, and are also present to answer questions. They become fully immersed in the market, developing an understanding of its importance and guiding values. There are countless additional benefits that are more challenging to quantify, but are critical nonetheless.

During the fall, the market often attracts pre-kindergarten and elementary school groups who are learning about nutrition and cooking, budgeting for groceries, or other issues related to the market (Figure 5). The market serves as a learning center about the region’s food systems (Figure 6) and offers educational and research opportunities for WSU students and Detroit youth. The market also provides a location for the performance of poetry and music, particularly from Detroit youth. For many students, the market provides an introduction into systems thinking as students discuss with and learn from rural farmers about the challenges of farming, urban farmers about the challenges of land access, and shoppers about the limited food options available to them in their neighborhoods, then synthesize this knowledge into their understanding of the role of the market in discussions with SEED Wayne’s staff.

**Figure 5. A group of young children touring the market**

![Photo: Dr. Kami Pothukuchi](image_url)
Given their limited terms in college, these students are typically only temporarily involved in campus-based activities. Leaders, however, are distinguished by their interest in and willingness to initiate new sustainability-oriented activities, some of which may continue on after they leave. The pilot delivery program at the WSU Farmers Market stands out as one such formative learning experience for the project’s student leaders. Three students came together to develop a delivery project when a campus administrator suggested it as a potential avenue for increasing sales. They fleshed out the concept, including developing tools for listing the day’s products and taking orders online and a system for delivery of fresh produce on very hot days, and managed tasks related to account-keeping and project evaluation. The pilot project lasted for only eight weeks, but it demonstrated the ability of students to assume total responsibility for a project from start to end. All three students continue to be involved in food system work: one is currently developing a large garden project in a Detroit suburb, and another has become heavily involved in community organizing activities in Detroit while recently employed as a research assistant with SEED Wayne.

**WSU Campus Gardens**

SEED Wayne founded campus gardens at WSU for the purposes of demonstration, education, and capacity building. The gardens, placed in three locations throughout campus, each provide a different model of growing food. The WSU Campus Gardens began with the Warrior Demonstration Garden in the summer of 2008 (Figure 7). The garden, located in the heart of WSU’s campus, consists of raised beds growing a variety of fruits, vegetables, herbs and flowers. An original goal of the garden was to deliver produce to the campus cafeterias for incorporation in meals and then to educate cafeteria diners about food systems, particularly food miles and eating seasonal foods. As the garden evolved, the majority of the produce began to be
donated to local food assistance programs. This allows the gardens to be used as a tool to connect students with the food insecurity issues in the neighborhoods surrounding WSU, while also enabling them to feel like they are providing a small piece of the solution. Additionally, pedestrians regularly stop by during gardening hours to ask volunteers questions about the garden and its purpose. The questions that visitors pose to the student volunteers often provoke the students to think about relevant issues in a more nuanced way. In these ways, the garden increases students’ understanding of relevant issues, enabling them to become lifelong ambassadors for urban agriculture and sustainable food systems.

Figure 7. 2008 Warrior Demonstration Garden build

Photo: Dr. Kami Pothukuchi

In 2009, SEED Wayne began St. Andrew’s Allotment Garden, with the express purpose of allowing students, faculty, and alumni to own and manage their own beds, thereby increasing their ability to learn by doing. A goal of all of the campus gardens, particularly of St. Andrew’s Allotment Garden, has been capacity building. Through weekly gardening hours, all the gardeners come together in order to learn from each other and to build a community around food at WSU. As the levels of experience vary from first-time gardeners to those who have gardened most of their lives, the allotment garden offers an opportunity for gardeners to work together and learn from one another. SEED Wayne recognizes the importance of conversations to allow participants to reflect on their learning related to campus and community activities. The program hosts potlucks for gardeners to come together and take time to share their experiences and reflect on those of others. Reflections underscore that there are indeed different ways to approach particular problems, while also highlighting the value of comprehensive approaches that build on knowledge from different sources and previous actions.

The third, and most recent, addition to the campus gardens came with the development of three rooftop gardening structures in the summer of 2010, through
a partnership between SEED Wayne and the Engineering Department of WSU. Designed by an engineering student, the garden beds capture rainwater through polycarbonate roofs that direct water to barrels that deliver it to plants through drip hoses. The student, having only limited personal experience with gardening and sustainable design, applied his classroom knowledge to create a model that could be replicated on similar structures elsewhere. The ability to apply classroom learning in meeting a community need is an essential component of student leadership.

Peer education, or students teaching other students, represents another key element of SEED Wayne. SEED Wayne volunteers educate their peers in a variety of ways, including classroom lectures, information tables at the WSU farmers market, informal conversations and skill sharing, and most prominently through workshops on topics of relevance to them. The campus gardens provide the space and ample opportunities for peer education on topics such as effective harvesting, rain barrel construction, vermiculture, and seed saving (Figure 8). In all of SEED Wayne’s student-led workshops, participants are encouraged to practice skills, research information, and implement projects, and then to share their experiences through presentations at conferences and other special events (Figure 9). In educational workshops relating to the campus gardens, students research the topic on their own with help and guidance from SEED Wayne staff; after compiling this research, they put it into practice and, finally, offer this knowledge to others. While there is an abundance of available literature about sustainable agriculture topics, SEED Wayne gardeners are generally limited in gardening space, time, and available resources. Therefore, the students offering workshops must read the materials available, learn about a wide variety of techniques used in different agricultural settings, and translate this knowledge into the most usable form given the relevant limitations of gardening on an urban university’s campus—a necessary skill for all students working in a diversity of communities.

**Figure 8. Students examining the soil quality in a garden bed**

![Students examining the soil quality in a garden bed](Photo: Dr. Kami Pothukuchi)
Challenges for Student Leadership

No doubt, numerous challenges exist to a university sustainability program embodying student leadership. These challenges are likely to be different at each university, but two of the primary challenges experienced by SEED Wayne have been cultivating diversity among its participants and reconciling student interests and needs within rigid university calendars and program requirements.

Cultivating Diversity

SEED Wayne has been successful in attracting many and diverse groups of participants from a range of disciplinary backgrounds, ideologies, and socio-economic levels. However, the program has struggled in its efforts to develop leadership among students of color. Although several employees have been students of color, almost all of SEED Wayne’s volunteers are white. There are many reasons for this racial disparity in SEED Wayne’s student leadership, the most prominent among them being structural barriers impeding the participation of students of color. Given these challenges, SEED Wayne continually strives to attract diverse populations and to reflect on barriers to participation, especially by students of color. It tries to be intentional about reaching out to diverse student groups when recruiting student leaders. The program also has invited to campus national sustainability leaders such as Will Allen—executive director of Growing Power, a nationally renowned food justice organization, and others who are dedicated to racial justice, and developed partnerships with community organizations with a focus on diversity and racial justice. This challenge offers no easy resolution. SEED Wayne will continually have to be conscientious about the demographic makeup of its staff and volunteers as it works in a community that is predominantly African-American.
Reconciling Student Interests and Rigid Calendars
Rigid university calendars, funder mandates, the requirements of the growing season and other structural constraints pose yet another challenge to student leadership. While some of these constraints are intrinsic to sustainable food systems and to campus environments, the pressure they exert can stifle more innovative approaches to engaging students throughout the entire process. Students must accommodate their own semester schedules and need to periodically withdraw, and many combine work, school and commuting. Such time constraints and the dispersed nature of students' location around campus challenge the ongoing collaboration and communication between students and SEED Wayne’s Director, himself a professor with many responsibilities and time constraints. These challenges are further complicated by the fact that during the summer, when SEED Wayne's projects are in full swing, fewer students are on campus.

This phenomenon also has few easy solutions, but SEED Wayne continues to communicate with and seek feedback from students. This attempt to keep participants informed and engaged in decision making has been cited as an important factor in student engagement. A few have stated that being treated with respect and as part of a larger community is an important factor in their decision to dedicate as much time as they do, despite constraints, to volunteering with SEED Wayne. SEED Wayne works with student leaders by giving them a significant amount of autonomy in decisions about tasks and their implementation while also communicating important requirements such as timelines and connections to staff activities, so that coordination is maintained and work is done efficiently.

SEED Wayne: Toward a Culture of Transformative Student Leadership
Despite these challenges, SEED Wayne has succeeded in advancing a culture of transformative student leadership. Above all else, SEED Wayne student volunteers have expressed that having a positive impact on the community is the most important reason they volunteer with SEED Wayne. As these students continue in their education and move into career tracks, they have stated they will carry their experiences and dedication to sustainability with them. Their understanding of sustainability has been deepened by interdisciplinary dialogue, engagement and education. A university offers a rare opportunity for these sorts of interdisciplinary interactions to occur with such a diverse group of people, opening students up to new ways of thinking. Programs like SEED Wayne, therefore, can draw out the latent leadership skills in many students, and allow students to apply those skills directly towards creating benefits for the university and surrounding community. This sort of programming transforms the students, who are likely to carry on the mission of SEED Wayne long after graduation. In this way, SEED Wayne demonstrates the ability of higher-education programs to create educated social change leaders who learn to collaborate across boundaries in order to bring about more sustainable communities, and ultimately, a more sustainable and just world.

Student Reflections
As part of this field report, I interviewed six WSU students/alums who volunteered with the program in different activities and at different times in the program’s
evolution. Each student was asked questions about themes critical to sustainability literacy and leadership development. Following are excerpts from some of these interviews and SEED Wayne’s quarterly newsletter, Wayne Seedling.

Chloe Lundine, social work student and volunteer with campus gardens and the farmers market:

I continue to do it because I feel like it makes a difference in the community. Folks come to the farmers market and say their life is better because of the farmers market—how do you not continue to be involved with something like that? (Lundine 2011)

Julia Sosin, environmental science student and volunteer with campus gardens, the farmers market, and Detroit FRESH:

What I saw at the farmers market was very separate than what I saw during my work with Detroit FRESH. There is a huge disparity between the university center and the eastside outer ring of Detroit... Sustainability means a lot of other things besides becoming an environmentally sound planet—we have to work together and figure out how to work together. The efforts used to achieve sustainability must be sustainable and just themselves (Sosin 2011).

Roland Bogdani, engineering student and designer of the rooftop garden:

With growing awareness on the need for sustainable systems, I think I am in a very good position to use my experience and knowledge for the benefit of the entire community (Bogdani 2011).

Sara Farmer, student in the Irvin D. Reid Honors College and volunteer with the farmers market and Detroit FRESH:

Outreach for Detroit FRESH gave me a great sense of accomplishment... The program helps ensure that affordable fresh produce is available even where grocery stores are not. As a 17-year resident of Detroit city proper, this is an important issue to me (Farmer 2011).

Robin Darling, recent graduate of Library and Information Science and volunteer with the farmers market and campus gardens:

The ongoing workshops hosted by fellow gardeners and community members provide a venue for interactive learning... Another great thing about this group is the diversity of its membership. People of different ages, ethnicities, educational backgrounds, etc., collaborate and learn from one another (Darling 2011, 3).

Katherine Bryant, recent graduate of Library and Information Science and former volunteer with the farmers market:
Libraries are about helping a community’s residents cultivate skills and capacities to learn more about, and become more competent in, the world in which they live... The issues of food justice that SEED Wayne works to resolve are just as important as the information-access problems that librarians work to resolve (Bryant 2010, 3).

In conclusion, through engaging university students in the leadership roles associated with its activities, SEED Wayne has clearly made a difference in the lives of the above-quoted individuals. Furthermore, through focusing on developing leadership among its volunteers and staff, as well as collaborating with other youth-focused organizations, SEED Wayne continues to cultivate leaders committed to the program’s “4 Es” of sustainability. It is my hope that sharing the experiences through this field report will encourage similar initiatives at other universities and in other communities.

William Ahee is a fourth-year undergraduate student at Wayne State University studying Philosophy and Political Science. SEED Wayne’s first employee in 2008, he worked for the program for two years. His research interests include the intersection of environmental change and human rights, and developing sustainable and just food systems.

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Websites

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