

A College Food Security Initiative Toolkit

"Hunger is not a problem. It is an obscenity.

How wonderful it is that nobody need wait a single moment before starting to improve the world."

- Anne Frank

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INTRODUCTION

FOOD INSECURITY ON COLLEGE CAMPUSES

Food insecurity occurs with "uncertain or limited access, availability, and variety of food needed to sustain a healthy life". Food insecurity has been a long-standing public health problem, but in recent years has gained traction in the college population.

The most recent national food insecurity rate for households in the United States was 11.8% (<u>USDA</u>, <u>2017</u>). Alarmingly, the prevalence of food insecurity among college students is much higher, with a 2017 systematic review reporting the average food insecurity rate from peer reviewed studies on college campuses at 42% (<u>Bruening</u>, <u>2017</u>).

Food insecurity can play a detrimental role on the success of college students. This includes, but is not limited to, poor physical and mental health, inadequate dietary intake, and lower academic performance (Lee, 2018). Given the potential impact on the success for degree attainment for college students, college campuses have started implementing programming to assist college students in overcoming food insecurity in a variety of ways (Dubick, 2016; Fetter, 2018).

Although this toolkit will not provide initiatives for students on campus to use to support the detriments caused by food insecurity, such as mental health, it is acknowledged that these are important programs and should be addressed on campus. Resources are available for college students for mental health and diet quality and many universities and colleges offer campus based academic support centers.

WISH4CAMPUS

WISH4Campus – Wellbeing Increased by Security from Hunger – is a college program developed by researchers at West Virginia University to investigate food insecurity issues on college campuses and provide solutions to empower individuals on campuses to improve the food environment to promote student wellbeing.

This toolkit has been designed as a "one-stop-shop" providing a comprehensive guide on food insecurity initiatives that have been tested and implemented on nationwide college campuses. This guide aims to provide a "how-to" on starting food insecurity program initiatives, from the limited evidence-based programs, to replicate on your own campus.

The WISH4Campus toolkit was developed by employing the constructs and framework of the Normalization Process Theory (NPT) (May, 2010). The NPT proposes four constructs – Coherence, Cognitive Participation, Collective Action, Reflexive Monitoring



- that constitute successful implementation of an intervention. The toolkit will seek to highlight these constructs when providing recommendations for each food security initiative. These recommendations aim to help implementers navigate the execution process and gain social acceptance for sustainable programming on campus.

DEVELOPMENT

Currently, despite the interest and awareness of food insecurity on college campuses there is not a resource that comprehensively represents published initiatives regarding best practices. Our awareness of this void has led to this final product to bring together food insecurity initiatives on college campuses and to provide a toolkit for ease of implementation. The WISH4Campus toolkit was developed through a systematic search of all peer-reviewed and grey literature (predominately from non-academic news outlets such as the New York Times, etc.) on food insecurity programming. PubMed and CINAHL databases were used for peer-review literature, with Google and Google Scholar used to identify any missed or grey literature. The literature was searched independently by two trained researchers and compiled into an excel for review. The reviewed peer-review and grey literature topics were compiled into this toolkit, with NPT constructs applied to help universities think of the processes that are needed to implement a food insecurity initiative. Available resources are included in each section to help guide the implementation process.

HOW TO USE THE WISH4CAMPUS TOOLKIT

So, you want to investigate food insecurity on your campus and start a food security program? The first step is reading this toolkit, so you have come to the right place. This toolkit provides methods on how to measure food insecurity on campus which you can use to justify the need for food security programming on campus. Further, this toolkit provides you with ideas on the types of food security initiatives that have been implemented on other colleges campuses and suggest some resources to get started. Each food security program topic includes the following sections:

- A description of the food security initiative
- Acknowledgment of who is already running this programming and any development tips or outcomes
- Advice or potential resources to start your own program on campus

The topics included in this toolkit have been derived from our comprehensive national search of what has been tired on college campuses. All of the programs explained throughout this toolkit have been started on other campuses as a way to combat food insecurity. As you read through these, you may find that your campus already has one



of these programs. If so, that is great! You can market for the program or leverage your new approach by partnering with the implementing organization to make it even better! Alternatively, you could implement a different program to increase the number of food security resources available to students. If you find that no one on your campus is leading a food security program, you can step in and start the movement toward food security for everyone on campus. This toolkit provides you with ideas of what other campuses have championed so you can feel confident to use these ideas or a variation of them to be create your own program to improve student food security!



MEASURING FOOD INSECURITY



JUSTIFY PROGRAM NEED

One of the best ways to gain support for your initiative on campus is to demonstrate that there is a need. For a food insecurity initiative, you'll want to understand the level of food insecurity on campus and the issues students are facing that relate to their simultaneous struggle with food insecurity. This will help justify bringing a new program to campus and also help you to decide which type of initiative you want to implement to best help your campus population.

To do this, you will want to survey the campus population. The next section provides advice on which food insecurity tools to use and additional survey development tips. Additionally, we provide some advice on how to recruit students, faculty, and staff to complete your survey. Once this survey is completed, you can calculate the prevalence of food insecurity on your campus to gain support for your new food security initiative.

HOW TO MEASURE FOOD INSECURITY

There are many food insecurity measurement tools available and the decision on which to use can be tricky. Within college food insecurity literature, researchers most commonly use the USDA food security screeners, however some researchers use variations of these screeners or develop their own (<u>Bruening, 2017</u>). To remain consistent with the current literature, the USDA tools can be used, although it is acknowledged that these screeners have <u>not been</u> validated or created specifically for a college population. Development and validation of a college food security screener is warranted.

These screeners are available on the <u>USDA web-page</u> and contain a protocol for use and scoring to help researchers implement the tools.

UNDERSTANDING CAMPUS NEED

To understand the issues on campus that are impacting student food security status, you will also want to evaluate the barriers directly with the target population – the college students. For this, the use of Community Based Participatory Research (CBPR) will be beneficial. Through CBPR, you can create steering committees with key faculty, staff and students to help guide your survey development to collect all data relevant to your population. As students know first-hand the issues they face on a daily basis, they are monumental in helping researchers develop a survey to ask appropriate questions to justify need. Additionally, this will help you decide on the type of initiative to implement on campus. For example, if your student population predominantly mentions lack of fresh fruits and vegetables, a campus garden or farmers market might be the most appropriate program for your campus. However, if your campus student population



mentions that they mostly struggle with knowledge of available resources, an ambassador program might be best suited for your campus. The program to be implemented should be gauged by student need and its ability to overcome the barriers students identify.

A sample survey for justifying need for a food pantry has been created and is available on http://studentsagainsthunger.org/wp-content/uploads/2017/10/NSCAHH_Food_Pantry_Toolkit.pdf. Additionally, tips and tricks are provided to recruit for survey completion that may assist you move forward. This survey could serve as a model for your development of a survey to address other food insecurity initiatives.



CAMPUS INITIATIVES



INTRODUCTION

As mentioned, the increase in awareness and acknowledgment of campus food insecurity has come with the increase in campus-based food security programs. These initiatives are created with the intent to alleviate the burden on food insecure students and provide a resource to move toward a food secure environment for all student well-being.

Current status of evidence-based publications and comprehensive resources on the development and implementation of these programs is lacking. Many campuses to access what other campuses are doing to alleviate this issue with their students and how to go about starting their own initiative. In this toolkit, the following sections outline the programs that other universities and colleges have championed. As you peruse through these various initiatives you can think through the process on your campus using the NPT constructs.



FOOD PANTRIES



INTRODUCTION TO FOOD PANTRIES

Because of the flexible structural and organizational requirements, food pantries are one of the most commonly thought of resources when determining ways to alleviate college food insecurity and are also a fast-growing trend on college campuses (<u>Dubick</u>, 2016). As students may have limited transportation options and community pantries may be located far from campus, a campus-based food pantry offers an accessible option for students. Most campus food pantries are designed to provide supplemental and emergency food assistance to students. The College and University Food Bank Alliance (<u>CUFBA</u>) has championed the national development of college food pantries by supporting both existing and emerging campus food banks and pantries through the provision of resources on fundraising and student-run management. Through their organization, they've built a member base of 640+ college and university-based food banks.

Although the presence of campus food banks has increased dramatically, both grey peer reviewed articles state that there is a severe underutilization of college food pantries by students and that social stigma is a barrier to students seeking assistance (<u>Twill</u>, 2016; El Zein, 2018).



WHO'S IMPROVING FOOD INSECURITY THROUGH CAMPUS FOOD PANTRIES?

Currently, only two peer-reviewed manuscripts are available on the development of a campus food pantry. Both manuscript authors point out that many students who may



benefit from use of the food pantry do not know about its existence. Further, access to these food pantries by both advertising the food bank and strategies to maximize pantry user discretion are discussed.

Wright State University (Twill, 2016) published a peer-reviewed article discussing at length the steps taken to plan, set up, fund-raise, recruit, and run a campus food pantry. All students who came into the pantry were assumed to be in need of food, so no documentation other than a student ID was needed. The paper also mentions areas in which the food pantry could be improved such as utilizing social media to increase knowledge of the food pantries existence on campus.

University of South Florida (Paola, 2018) has also published a peer-reviewed article discussing the effectiveness of their campus food bank, "Feed-A-Bull", a student run food bank that operates twice a week. As it can be difficult for students to qualify for federal food programs, the food pantry does not require any documentation to receive aid. The authors state that the most likely students to visit were not eligible for a pell grant, did not have a campus meal plan and were working part or full time.

While there are limited peer-reviewed articles on campus food banks, there are a number of grey literature articles that discuss the successes and challenges of creating a campus food bank

Rutgers University has created a food pantry that utilizes a "market bucks" system; a scheme in collaboration with the city's local farmer's market where students who visit the pantry can obtain market bucks that they can use to purchase perishable items from the farmer's market, enabling students access to both non-perishable and perishable food items. http://www.dailytargum.com/article/2017/09/rutgers-food-pantry-creates-market-bucks-system-so-low-in-come-rutgers-students-can-obtain-fresh-produce

Temple University offers a campus food pantry that utilizes a point system, where each student who visits is allocated 16 points each week to shop for a variety of non-perishable items that are worth between 1 and 3 points. http://www2.philly.com/philly/news/special_packages/broke-in-philly/tem-ple-campus-food-pantry-cherry-summer-food-insecure-students-20180813.html



Michigan State University has the longest running campus food pantry in the United States, founded in 1993, and ensures student discretion by only requiring the student to email a request to the food pantry and entering it using their student ID while leaving the pantry unstaffed. https://www.feedingamerica.org/ hun-ger-blog/choosing-between-books-or

RECOMMENDATIONS

Partnering with your local food bank can be a huge help when setting up and running your campus food pantry. A food bank, unlike a food pantry is usually a storehouse that then distributes donated food items to organizations such as your campus food bank! Food banks may also help with fundraising, volunteer recruitment, and training. To become sponsored by your local food bank, you may have to become a member, which may involve your food pantry following their safety practices and potentially paying an annual fee. However, this collaboration is often a hugely beneficial step towards the success of your campus food pantry.

Getting sponsored is a key step in setting up your food pantry. For your pantry to become operational, you will often be required to obtain nonprofit status known as 501(c)3. Occasionally, food pantries apply for this status independently, but this can be a convoluted and potentially costly route so majority of food pantries find a non profit organization (such as a church, soup kitchen or university foundation) as a sponsor. Therefore, we recommend working to find a local sponsor for your food pantry.

Location, location, location! It is imperative that you choose a location for your food pantry that is accessible for all students and close to campus while still being discreet enough for students to visit without having to go through the middle of campus. As the negative stigma often associated with using a food pantry can be a barrier to visiting. Therefore, considering student dignity by locating the pantry a little off the beaten path yet still accessible may increase numbers of students who feel comfortable visiting.

Utilizing social media and events to advertise and raise money and donations will not only fight negative stigma and increase student knowledge of the pantry but will also help to boost donations. Commonly used ways to advertise and fund-raise include holding donation drives, getting student organizations (such as sororities and fraternities, sport clubs, other student active groups) involved and having an active social media page.



RESOURCES

Running a campus food pantry toolkit

This toolkit by the College and University Food Bank Alliance (CUFBA) is a comprehensive manual containing much of the information on the process of setting up a food pantry; from initial planning to recruiting and training student volunteers. http://stu-dentgovresources.org/wp-content/uploads/2015/10/SGRC_Campus_Food_Pantry_Toolkit.pdf

Food and fundraising toolkit

This is another toolkit by the College and University Food Bank Alliance with an emphasis on the sustainability of your food pantry by continuing fundraising and "food-raising". As fundraising is a crucial element and can be a challenge in the sustainability of many food banks, this is an excellent resource to gain some ideas on how you may want to fund-raise for your food pantry. https://docs.google.com/presentation/d/1h-0Von3MiO3om2bzoeOkAsrBP_YvLrfr1aKFwK1ScoxY/edit

Ohio State University campus food pantry toolkit

This "how-to-manual" explains in detail how OSU's emergency food pantry was set up and the learning points at each step. Knowing what parts worked well and didn't work so well from this food pantry can potentially help you avoid some of the same obstacles when creating your own food pantry and help guide you through the process on your own campus. http://www.tenriversfoodweb.org/uploads/8/1/6/1/81615248/so-youwant-to-start-a-campus-food-pantrypdf.pdf

So You Want to Start a Campus Food Pantry? A How-To Manual

This "how-to-manual" developed by the Oregon State University Food Bank addresses the issue of food insecurity on a college campus and provides steps to opening and operating a food pantry on campus. This manual can provide insight on how to start and maintain your own campus food pantry. http://ccsne.compact.org/wp-content/up-loads/large/sites/50/2017/07/so-you-want-to-start-a-campus-food-pantrypdf.pdf

LITERATURE YOU MIGHT BE INTERESTED IN:

Determining the Physical and Social Barriers that Prevent Food-Insecure Students at the University of Arkansas from Using the Jane B. Gearhart Full Circle

Campus Food Pantry

This undergraduate honors thesis aimed to understand why food insecure students were underutilizing the campus food pantry. From a sample of 349 students, barriers identified included lack of awareness, location, and perceived negative stigma.



Getting help when needed: food insecurity among college students and the impact of food pantry availability

This undergraduate honors thesis investigated the stigmas faced by students at the University of Central Florida that would prevent them from attending the campus food pantry. Students, n=61, acknowledged social stigmas that prevent them from attending the campus food pantry.



CAMPUS GARDENS

INTRODUCTION TO CAMPUS GARDENS

To target the limited access to and availability of fresh, wholesome food on college campuses, campus gardens are being developed to repurpose unused space into nutritious hubs to improve campus food security. Although these gardens are not as mainstream as food pantries, campus gardens are lending a hand to fill campus food pantries, farmers markets and dining halls with fresh, quality food. The Association of the Advancement of Sustainability in Higher Education (AASHE) is applauded for having the most robust dataset on campus-based garden initiatives, stating over 100 colleges and universities have started a campus garden for sustainability purposes. However, the purpose and target population of these programs varies and often do not focus on improving food access and availability for college students. There has been a call to increase student food security through increased establishment of campus gardens that improve availability and accessibility of food on campus (Chaparro, 2009). However, development of a campus garden for food insecurity is lacking within peer reviewed literature. Here we look to the grey literature to see who is making strides in campus garden programs.

WHO'S IMPROVING FOOD INSECURITY THROUGH CAMPUS GARDENS?

Campus gardens have been started at 2- and 4-year institutions, both public and private, to improve food security. Below is a glance at a few that are good resources to contact with insight on starting your own campus garden.

University of California, Santa Barbara offers different garden-based programs, including the Edible Campus Program that allows students to learn and implement agricultural techniques for sustainability, while also supplying the Associated Students Food Bank with additional healthy produce. This campus also offers plot-based programs where students can purchase a plot to grow their own food. http://food.ucsb.edu/resources/food-nutrition/gardens

University of Tennessee Knoxville Grow Lab has a campus garden through the UT Recycling program that partners with "Smokey's Pantry" the campus food pantry to distribute harvest to students in need. https://news.utk. edu/2018/09/12/ut-recycling-to-fight-food-insecurity-with-new-campus-garden/

Pennsylvania State University, Behrend Campus Garden is a garden, just north of Smith Chapel, which uses a community-supported agriculture model, with members funding seed purchases and supplies in exchange for a portion of the harvest. Produce from the garden also is donated to the Lion's Pan-



try — and to Dobbins Dining Hall on campus. https://behrend.psu.edu/sto-ry/33571/2018/06/22/behrend-campus-garden-becomes-community-resource

Kingsborough Community College (KCC) Urban Farm located in Brooklyn, New York is possibly the first on-site farm-to-pantry college program in the country, that turned a quarter-acre of dirt left behind by Hurricane Sandy into a student garden that grows almost 4,000 pounds of food to give away to those in need. Food is donated to the campus food pantry and distributed through the farm market during the growing season. https://civileats.com/2016/06/23/a-striking-number-of-college-students-are-food-insecure-can-campus-farms-help/

Santa Clara University, The Forge Garden is a ½-acre edible, organic garden is home to six chickens, four beehives, a 400-square foot greenhouse, a compost center, over 20 fruit trees, over 15,000-square feet of garden beds, a public commons, an aquaponic system, an outdoor kitchen, and the 2007 Solar Decathlon House used as an office. To date they have harvested 4173 pounds of produce of which 900 pounds has been donated and 232 pounds sold to campus dining. The Forge Garden operates a donation-based farm stand with a suggested donation price of \$2 per lb and \$1 per bunch but the overall policy is to pay what you can. https://www.scu.edu/sustainability/programs/theforge/

University of Arkansas GroGreen Campus Community Garden offers a 500 square foot garden that yields produce grown using all-natural and organic methods, with the majority of the produce being donated to the U of A's Full Circle Food Pantry. The garden is maintained by student volunteers using a "garden buddy" system. https://wordpressua.uark.edu/sustain/grogreen-and-the-campus-community-garden/

University of New Hampshire Organic Farm is noted for it's student-run organic garden, two-acre farm on the Campus-Community Farm, a 30-acre USDA certified organic site Crops harvested at the site are purchased by UNH Dining Services and sold at a weekly UNH Durham campus farm stand during the growing season. https://www.unh.edu/healthyunh/resource/organic-garden-club

RECOMMENDATIONS

Make your campus garden known! Most garden managers do opt to advertise to attract volunteers and customers, and they can promote more than just giveaways. Make the mission clear to improve food security but continuing the conversation to overall



improve the overall food system issues on campus. Some commonly used methods to advertise gardens may include: flyers, word of mouth, university websites, email lists, and Facebook/Twitter/Instagram.



Student leadership can also help to drive sustainability. In a 2015 study, of nearly three-quarters of campus gardens were initiated by students with these students also playing a large role in maintaining the garden on campus. A majority of campus gardens are donating product to improve the quality of food at campus food pantries, highlighting the need to partner with organizations on campus that have the same end goal of reducing food insecurity on campus. Therefore, it is highly recommended to team up and partner with student-based organizations to be the drivers of change on campus. However, campus leaders (i.e. faculty member or administrator) with supervisory responsibility are necessary components for overseeing campus gardens. This can be accomplished through finding champion organizations, with faculty leadership, on campus to gain support and volunteers for your campus garden. Aim to develop collaborations between like-minded organizations to create a team to build and implement a campus garden that is sustainable.

Unreliable funding is a commonly mentioned barrier to sustaining a campus garden. Therefore, we recommend seeking funding from several different sources (i.e. university budget, external grants, community donations) to avoid or mitigate challenges associated with sustaining garden funding.



Lastly, the success of these programs is not commonly monitored or reported which is a large barrier to further the implementation or funding acquisition. Therefore, we call for an evaluation of the outcome of campus gardens, with the end goal to con-tribute to the evidence-based literature on this topic to help other universities in the future by publishing your development and outcome reports.

RESOURCES

There is no current College Garden Toolkit to help universities start and sustain a campus garden. The below resources can be used as a guide and modified to apply the relevant contents to your campus environment.

University of Georgia Garden Proposal

This sample proposal can be a guide for colleges and university who want to write their own proposal to start a campus garden. https://ugarden.uga.edu/files/2016/08/Origi-nal-UGArden-Proposal.pdf

Community Garden Toolkit

Although not college campus focused, this toolkit describes the steps of starting a community garden and can highlight some of the thoughts that should go into starting your campus garden including budget and required space. https://my.extension.illinois. edu/documents/8092906090609/mp0906.pdf

LITERATURE YOU MIGHT BE INTERESTED IN:

University Food Gardens: A Unifying Place for Higher Education Sustainability

This special issue in the International Journal of Innovation and Sustainable Development describe characteristics of campus food gardens along with their contribution to overall campus sustainability. Fifty-two campus garden managers reported that campus gardens are often student driven, with support from other campus stakeholders.

Feasibility Study and Best Practices for a Campus Community Garden on the University of Arkansas Campus

The authors of this undergradute honors thesis completed the first national survey of universities and colleges with campus community gardens to understand the feasibility of campus community gardens. Seven best practices for campus community gardens were determined and could be a useful tool if considering the implementation of a campus garden.



CAMPUS FARMER'S MARKET

INTRODUCTION TO CAMPUS FARMER'S MARKETS

As food insecure college students report limited dietary diversity (McArthur, 2018), farmer's markets are one suggestion to improving dietary quality for food insecure students. Similar to campus gardens, campus farmer's markets bring fresh, wholesome food to college campuses as a way to increase availability and accessibility for students. According to the USDA's Agricultural Marketing Service, the number of markets in the United States has grown to 8,720, yet there is no clear estimate of the number existing on college campuses. Campus farmer's markets, often stocked by a campus or local community garden, can provide reduced price or free fruits and vegetables to students in need. However, as shown in above sections, development and outcomes of a campus farmers market for food insecurity is lacking within peer reviewed literature. Here we look to the grey literature to see who is making strides in campus garden programs.

WHO'S IMPROVING FOOD INSECURITY THROUGH CAMPUS FARMER'S MARKETS?

Campus farmer's markets are popping up in grey literature at 2- and 4-year institutions, both public and private, to improve food security. Below is a glance at some farmer's markets with their objective being to improve food security. These might spark your interest and be a point of contact for insight on starting your own campus farmer's market.

Baylor University, Free Farmer's Market in Waco, Texas is a bi-annual event, combining food distribution with efforts to raise awareness about hunger, nutrition, wellness, and other related issues. In previous years, the farmer's market housed 46,000 lbs of food (fruits, veggies, breads, water, and other foodstuffs) donated by the Family of Faith Worship Center with additional operation support from campus organizations. The event was a success with nearly 1,500 students taking home a total of over 40,000 lbs of food! http://sites.baylor.edu/bufood-links/sample-page/baylor-free-farmers-market/

San Diego Mesa College Farmer's Market partners with Feeding San Diego and San Diego Mesa College's The Stand (campus food pantry) and aims to minimize food insecurity among Mesa students. Students on campus are allocated 100 points to use at The Stand and farmer's market. Partnership with Feed San Diego allows the college to receive up to six pallets of fresh produce once a month for the campus farmer's market. https://www.mesapress.com/news/2018/04/26/farmers-market-on-campus-provides-free-produce/



Minnesota State University Mankota Free Farmer's Market offers students free vegetables with student ID as well as information about food resources in the area. This farmer's market works as an extension of the Campus Cupboard, the food pantry on campus. http://www.startribune.com/campus-food-shelves-fight-growing-food-insecurity-and-stigma/492730191/

Humboldt State University Farm Stand is run through HSU Oh SNAP! Student Food Program, a student-driven initiative dedicated to increasing access to nutritious and culturally appropriate food for all students by engaging in



campus and community partnerships and by raising awareness of food insecurity among peers. The Farm Stand provides produce once a week to students for free. http://hsuohsnap.org/#_programs

The University of Utah Farmer's Market provides access to fresh, healthy, local produce from approximately 30 vendors each week during the first 7 weeks of the fall semester. This farmer's market also utilizes a "Double Your Dollars" program that provides two-for-one tokens to students for purchase of eligible items. The 2017 Double Your Dollars program helped more than 500 students and SNAP (Supplemental Nutrition Assistance Program) recipients purchase grocery food items. https://sustainability.utah.edu/engagement/programs/farmers-market/



Santa Monica College, The Corsair Market is a free farmer's market open to all students and runs every Wednesday during the fall and spring semes-ters. The Corsair Market is staffed by trained student and staff volunteers and partners with Food Forward (https://foodforward.org) to collect produce from the Santa Monica community farmer's market and bring to the campus farmers market for distribution. On average, the Corsair Market receives be-tween eight and ten boxes of produce from the community farmer's market and the Westside food bank supplements this donation with other fruits and vegetables when available. http://www.smc.edu/StudentServices/StudentLife/Pages/Food-Security-Programs.aspx

RECOMMENDATIONS

Location of your market can be a key component to gaining student participation. Utilizing a "hot spot", such as outside a student union on campus where there is the most student traffic makes the farmer's market accessible to students and is likely to bring attention to your farmer's market. Using signage and marketing strategies to gain student attention will increase the visibility of your farmer's market. The time in which your farmer's market is open can also play a key role in gaining student attendance. Ensuring that you plan your campus farmer's markets around students' schedules, to the best of your ability, will help drive the most attendance. In general, afternoon and evening markets may be an ideal option for most students to visit the market at the end of their day before heading home from class. Therefore, we recommend picking the location and time that best fits the needs and availability of your student population. It might be worthwhile to survey or interview students asking their opinion on what works best to gain insight from your target population. Partner! Investigate the campus and local resources to find those who could help to keep your farmers market stocked with fresh, quality produce. If your campus has a campus garden or greenhouse, this may be a great starting place and improve sustainability on campus. We recommend partnering to stock your farmer's market with campus grown products if possible. Additionally, you can partner with local farmers or food banks to ensure that you have a plentiful display for the campus farmer's market.

Facilitate communication between vendors and students to improve the experi-ence for everyone and adapt the farmer's market to make it sustainable on campus. Vendors can provide tremendous amount of knowledge to students about making healthy, sustainable choices and how to best utilize their produce. However, the needs of students as consumers, must also be met to ensure continued student



attendance of the farmer's market. If your farmer's market has limited choices that a student may not have the skills or necessary resources to utilize, they are not likely to return. For example, many student housing locations, such as dorms, do not allow students to have knives which could hinder students use of the produce received from the farmer's market. Therefore, we recommend collecting feedback from both students and vendors to evaluate the perceptions of your farmer's market and adjust as necessary. Further, sharing your development and outcomes can help guide others to improve implementation at on other college campuses.

RESOURCES

UC Davis Starting a Farmer's Market Manual

This manual helps guide those who want to start a farmer's market through all processes including setting up an organizing committee and conducting a feasibility study to determine your potential for success in starting a farmer's market. Although not specifically developed for a college campus, this can be a valuable resource for campuses to aid in developing and initiating a comprehensive plan for starting and maintaining a campus farmer's market. http://sfp.ucdavis.edu/files/144703.pdf

Michigan Farmer's Market Justification

Michigan offers advice on the benefits of the farmer's market, how can it support local and sustainable food consumption, and how to promote attendance at farmers markets. These questions might be pertinent to ask yourself when planning or improving a farmer's market on your campus. http://www.umich.edu/~farmers/

Purdue Extension SNAP and WIC How-To

Many farmer's markets are starting to make it possible to use SNAP (<u>Supplemental Nutrition Assistance Program</u>) and WIC (<u>Women, Infants, and Children</u>) benefits for purchasing produce - which may be an option at your campus farmer's market as well. This site helps farmer's markets think through why they might want to enact the use of SNAP or WIC at their market and how to go about becoming enrolled. https://www.purdue.edu/dffs/localfood/snap-wic-at-farmers-markets/

LITERATURE YOU MIGHT BE INTERESTED IN:

Examination of a Farmer's Market on a University Campus

The authors of this undergraduate honors thesis sough to explore the rationale processes for implementing a farmer's market on East Tennessee State University campus. This thesis can provide insight on the process of starting a farmer's market on your campus and provides recommendations for future programs.



CAMPUS DINING AND RECOVERY PROGRAMS



INTRODUCTION TO CAMPUS DINING AND RECOVERY PROGRAMS

Improving the food environment on campus can be as easy as improving or expanding upon the already existing campus dining programs. Campus dining and recovery programs aim to improve the efficiency of dining programs. This is often achieved through food recovery programs, reducing food waste, providing leftover food to those in need or meal swipe programs that ensure meal swipes are not wasted by allowing students to share extra swipes with hungry students. Additionally, some colleges and universities have started voucher programs through their campus dining halls that allow students in need to receive free meals through campus dining services. Some of these programs have become large scale, nationwide initiatives including Swipe Out Hunger, Food Recovery Network and Campus Kitchen. In this section, we will discuss these three large initiatives plus introduce some other champions from grey literature that have started their own initiatives on campus for students in need.



WHO'S IMPROVING FOOD INSECURITY THROUGH CAMPUS DINING AND RECOVERY PROGRAMS?

Nationwide initiative programs

Swipe Out Hunger is a student organization that started as a means to provide meals for students to use their extra meal swipes to purchase meals for the homeless. In 2016, Swipe Out Hunger changed its focus to address campus hunger, establishing chapters across the country, that allow students with extra dining hall meal swipes to donate them to their peers. This program now oper-



ates in 23 states and on dozens of campuses and has served 1.5 million dining hall meals to date. For more information or to find out how to start a chapter on your campus visit: http://www.swipehunger.org/

The Food Recovery Network (FRN) is a student founded organization that aims to reduce food waste and utilize leftover food to provide meals to those in need. To date, FRN has 230 chapters in 44 states that, together, have donated 2.2 million meals to those in need. For more information or to find out how to start a chapter on your campus visit: https://www.foodrecoverynetwork.org/

The Campus Kitchens Project was founded in 2001 through the DC Central Kitchen. Campus Kitchen allow students to transform unused food from dining halls, grocery stores, restaurants, and farmers' markets into meals for their campus and community. Campus Kitchen programs are on 65 campuses nationwide and in the 2016-2017 academic year they prepared 378,423 meals for those in need. Beyond recovering food to end hunger, Campus Kitchens Project aims to develop innovative local solutions that go 'beyond the meal' and target hunger's root causes. For more information or to learn how to start a project on your campus visit: https://campuskitchens.org/

Campus Specific Programs

Santa Monica College FLVR Free Lunch VoucheR (FLVR) program aims to provide hot meals to students in need. Through the Office of Student Life, students can complete an application to verify eligibility and need. Once enrolled, students are required to meet with a counselor three times a semester to remain in the program. When meeting with a counselor, students receive five, \$5 vouchers to for any on-campus food vendors. http://www.smc.edu/StudentServices/StudentLife/Pages/Food-Security-Programs.aspx

Massachusetts Institute of Technology (MIT), SwipeShare program was created as a partnership between the Division of Student Life (DSL), Undergraduate Association (UA), and Graduate Student Council (GSC) as one part of an ongoing, multi-pronged approach to tackle the challenges students face while trying to get enough to eat. SwipeShare allows students on a meal plan to donate their guest swipes to other students struggling with food insecurity. All donations and requests for meal swipes are made on a secured university website that is designed to be user-friendly. http://news.mit.edu/2017/mit-swipe-share-program-tackling-student-food-insecurity-1215



Tufts University, Swipe It Forward, in Medford, Massachusetts, was developed through a partnership between Tufts Dining Services, the Office for Student Success and Advising and the Tufts Community Union (TCU) Senate's Culture, Ethnicity, Community Affairs (CECA) Committee, this program allows students to donate extra meal swipes to students in need. Students can donate between 1-4 meals depending on their meal plan and donations are made via a web form on the university's website. Students in need can request up to 10 meals per semester through the program, although more meals can be made available upon request on an individual need basis to the Associate Dean for Student Success and Advising. https://tuftsdaily.com/news/2017/02/06/swipe-it-forward/

Oregon State University, Mealbux Fund is funded by student fees to provide meal assistance to students facing food insecurity. Students are able to spend Mealbux funds at any location on campus that accepts "Orange Cash", a campus debit program with funds on student ID cards. To be eligible, students must complete an application form during the first week of the term with some exceptions made for students facing hardships after missing the application period. https://studentlife.oregonstate.edu/hsrc/food-security/food-assis-tance-funds/mealbux-fund

Spelman College, Free Meal Program was developed following a hunger strike on campus. Spelman college, in Atlanta, Georgia, partnered with Aramark to donate up to 14,000 meals to eligible students. Any current Spelman student living off campus and struggling to afford to eat can obtain a complimentary meal ticket from the Office of the Dean of Students to use in the dining hall. Students who live on campus dormitories already have paid meal plans and are exempt from the free meal tickets. http://www.crossroadsnews.com/news/stu-dent-hunger-strike-ends-with-free-meals-for-hungry-scholars/article_d4c8795c-c5a6-11e7-8d65-1beb56eb7a9a.html

RECOMMENDATIONS

Utilize orientation or introduction courses to familiarize students to the food assistance programs on campus. If students are unsure of the resources available to them on campus, they are not likely to be used and students in need are not likely to be served. Therefore, we recommended that courses required by all students, such as freshman orientation, contain information on the meal programs on campus. This will help stu-



dents in need understand the resources available to them and any the eligibility requirements. Further, students will understand their option to volunteer or donate extra resources through these programs making them well utilized by all students.

As national programs are available, this can ease the stress of trying to navigate what program to start and how to go about it. Programs such as Swipe Out Hunger or Food Recovery Network will provide you materials and guidance needed to launch an initiative on your campus. Further, this will connect you with the numerous other college campus's nationwide that are running the same program and therefore provide a support network as you navigate making your food insecurity program sustainable on campus. Thus, we recommend starting a program on campus through one of these already available national movements.

As with previously mentioned programs, evaluation is key for sustainability. Therefore, we recommend collecting evaluation data for improve and sustain your program on campus. This will help to justify your program on campus and show the impact you are making on campus food security.

RESOURCES

UC Global Food Initiative Swipe for Meals Guide

This best practice guide created by the UC Global Food Initiative Subcommittee on Swipe for Meals is intended to help students, staff, and faculty gain more information to create a meal swipe program on their campus. This guide will walk you through the steps of gaining support, identifying partners, building relationships on campus, creating a proposal and implementing and sustaining a program. https://www.ucop.edu/global-food-initiative/_files/Swipe%20Out%20Hunger%20Guide_Final.pdf

Food Recovery Network Resource Page

The FRN offers a student resource page that includes handouts, flyers, how-to-guides, forms and other helpful materials for managing a food recovery network. If you choose to start your own food recovery program, these resources can help guide you through promoting and maintaining your program on campus. https://www.foodrecoverynet-work.org/students/



MOBILE APPLICATIONS

INTRODUCTION TO MOBILE APPLICATIONS

Using mobile apps is a creative and relatively recent approach to combating food insecurity on college campuses. As many college students are technologically savvy, utilization of a mobile app can provide an easily accessible way of helping to relieve food insecurity. While currently only a few campuses are currently using this strategy, it provides a great opportunity for growth.

The basis of many of these mobile app programs involve enabling students who are on a meal plan to donate meal swipes to students in need. The main approach of these apps involve the sharing of meal swipes; where a student who is on a meal plan can donate 'swipes', usually at the end of the semester, to students who can request them via the app. This strategy prevents meal swipes, which are usually prepaid, from going to waste and also enables students to have access to free campus meals.

Both of these programs are created and driven by students who have provided a creative way to fight food insecurity but the expansion of these apps to involve more campuses has been slow moving. By increasing faculty involvement and interest from other schools, it could give the opportunity to expand this idea to a successful multi-campus program and a more mainstream method of reducing campus food insecurity.

WHO'S IMPROVING FOOD INSECURITY THROUGH MOBILE APPLICATIONS?

The first meal swipe app in operation, "swipes" was founded by students at Columbia university and unfortunately shut down after less than a year in operation due to technical flaws in the app. The way the app works is students who are on meal plans can sign up and donate meal swipes that can be donated to students who request swipes on the same app. As many students on a meal plan have a surplus of meal swipes at the end of each semester, this is when the most donations occur which also coincides with the time when students may find money is tight and have issues accessing food.

Although there are a limited number of schools currently using mobile app programs, this is definitely a strategy that has the potential to become a major tool in reducing food insecurity on college campuses given that students are generally tech-savvy and could find it an easy way to access and donate meals. Below are some schools that could be used as contacts for setting up your own mobile app.

Columbia University, Swipes App is a mobile swipe sharing app developed to connect students in need of meals with students who had swipes. Unfortu-



nately, the app is no longer in operation due to technical flaws within the app. https://www.columbiaspectator.com/news/2015/09/20/two-cc-students-launch-mobile-meal-sharing-app-swipes/

New York University, Share Meals App was developed by New York University student, John Chin in 24 hours. This app, similar to "Swipes" was a success on campus and had raised 800 meal swipes and donated 400 meals in the first seven days of operation. Currently, the app also incorporates a map showing campus events that are offering free food. https://www.coursehero.com/faculty-club/classroom-tips/meal-sharing/

Barnard College, Share Meals App was started on campus after the success of Share Meals App at NYU. Starting in December 2017, Barnard College of Columbia University has implemented the app into their college. https://www.columbiaspectator.com/news/2017/12/06/share-meals-app-newly-available-to-barnard-students-aims-to-combat-food-insecurity/

RECOMMENDATIONS

Get in touch with the individuals and schools who are championing the use of mobile applications. As the apps are in the process of expansion, this provides an opportunity for other schools to get involved and to bring the program into more campuses.

Consider utilizing students on your campus who have a background in software development to cultivate your campuses own swipe sharing app. All of the apps currently used are set up and run by students and recruiting students could provide an opportunity to gain experience in developing an app that could be used by an entire student body.

RESOURCES

Share Meals: How Hunger gave us Purpose

These resources, regarding the Share Meals app developed by Jon Chin, provide insight on his reasoning for developing the Share Meals app at New York University. His talk may just inspire you to develop your own app to help students on campus who are secretly struggling with food insecurity. Additionally, these resources provide a look at the future directions of this meal sharing application to better improve food access for students. https://www.youtube.com/watch?v=k1b8oV7DI6s; https://www.coursehero.com/faculty-club/classroom-tips/meal-sharing/



POLICY CHANGE



Policy change is a necessary step in sustainable change on campus. Below are some potential policy initiatives your campus could enact to help students in need.

Require a Food Security Task Force on campus. A task force, comprised of faculty, staff and students, to tackle the issues of food insecurity on campus can be the voice for those in need. This task force can champion initiatives such as "No Student Hungry on Campus" and investigate what changes to campus can help students in need. This can include reviewing and expanding existing programs, starting a new food insecurity activity on campus, and facilitating university funding to food insecurity programming-



Mandate training on assistance programs at student assistance offices and for faculty. Students in need often do not know where to seek assistance and face barriers to receiving assistance. Ensuring that student assistance offices are properly trained on food insecurity and available resources is a key component to helping students get the help they deserve. A potential guide for how to make this a sustainable part of your campus operations can be modeled from the Benefits Access for College Completion (BACC) Initiative that helped community colleges increase student access to benefits. To learn more about this program and read about their lessons learned, visit: https://www.clasp.org/sites/default/files/public/resources-and-publications/publication-1/Benefits-Access-for-College-Completion-Lessons-Learned.pdf Additionally, it has been recommended that faculty advisors should be prepared to discuss these topics with students and can play key roles in connecting students with resources and advocating for policies that would alleviate the problem. Here, Pennsylvania State University offers advice for academic advisers to best support students who are experi-



encing food insecurity: https://dus.psu.edu/mentor/2017/04/do-you-understand-what-it-means-to-be-hungry-food-insecurity-on-campus-and-the-role-of-higher-education-professionals/

Lastly, as stigma is often a large barrier for students to use these assistance programs institutions need to develop strategies to decrease the stigma that may prevent food insecure students from accessing needed resources to alleviate food insecurity on campus. A potential model is the use of peer to peer assistance. For example, the Student Serving Our Students (SOS) program at Mount Wachusett Community College is a peer-mentoring program that helps connect students to and apply for resources on-campus and in the community to ensure long term food security. Implementing a student led model in your student assistance offices and incorporating them in your mandatory trainings may be warranted. https://mwcc.edu/campus-life/brewer-center/pantry/

Implement nutrition "life-skills" and money management into freshman or transfer orientation classes. College students often transition into college without the skills to manage money efficiently, including smart shopping or budgeting. These skills can be the foundation for students building a food secure lifestyle. Therefore, colleges and universities can aim to help students start off on the right foot by requiring all first year or transfer students to take a life skills course that can teach students how to manage with their limited resources. http://calag.ucanr.edu/Archive/?article=-ca.2017a0023

Contact Legislators to expand benefits for college students. Access to benefits, such a SNAP, are often limited for college students regardless of their food insecure situation. Some states are acknowledging this discrepancy and reevaluating requirements for college students. In 2014, California congress allowed college students enrolled in a work-study program to qualify SNAP. In 2018, New York's governor proposed legislation that would ensure that healthy food options are available on all college campuses and require all public college/university campuses to either provide physical food pantries on-campus or enable students to receive food through a separate, stigma-free arrangement. Additionally, Congressman Al Lawson, Jr of Florida introduced the College Student Hunger Act of 2017 to expand SNAP eligibility for college students on a national stage with this bill still in discussion. If your state has yet to propose an action to improve access to benefits for students, contact your state representatives or work with local interest groups to get food insecurity among college students on the docket for discussion. Your campus can be a champion for



making change in your state and your voice can be heard. To find your elected officials, visit: https://www.usa.gov/elected-officials. Further, the American Society for Biochemistry and Molecular Biology has developed a toolkit which provides tips on advocating for your cause.

RESOURCES

How College Students Can Promote Campus Policy Change

This Huffington Post article by the Vice President of Policy Reform for the Foundation for Individual Rights in Education (FIRE) provides insight on how students can make their voices heard on campus. Ideas such as use of the student press can be used to promote awareness to the food insecurity issues on campus.

https://www.huffingtonpost.com/azhar-majeed/how-college-students-can-promote-free-speech_b_8923544.html

Campus Change Campaign Grassroots Guide

While the authors of this document focus on changing drug policies on campus, they provide necessary steps to policy change on campus. These steps can be modified to address different policy change initiatives on campus, including policy change for a food secure environment. http://ssdp.org/wp-content/uploads/2016/07/ccc-grass-roots-guide.pdf

Transform Your Campus: Advocacy Guide

The authors of this guide specifically address mental health as a resource for students to guide advocacy through information on basic leadership skills such as goal and agenda setting, assessing the campus climate, building coalitions, writing project plans, and convening meetings. By downloading this guide, you can get ideas on how what is needed for student advocacy on campus and can be applied to make change to the food policy on campus. Note: contact information is required for access to the guide. https://www.activeminds.org/programs/transform-your-campus/



CONCLUSION



This toolkit was developed to inspire and guide campuses in developing and implementing food security programs for students in need. We hope that your campus is ready to start tackling student hunger and with this toolkit you are able to find a feasible starting point for approaching food insecurity issues on your campus. Let this toolkit help you make the changes needed to improve student well-being!

This toolkit is an ever-evolving resource as the food security movement on college campuses is rapidly growing. If you have a program or resource you would like to add to the toolkit, please email us at WISH4CampusToolkit@gmail.com.



EDUCATIONAL RESOURCES



