

Building a culture of food security in higher education: an important role for nutrition educators

Speakers:

Emily Heying, PhD College of Saint Benedict/Saint John's University

Zubaida Qamar, PhD, RD, San Francisco State University

Megan Patton-Lopez, PhD RDN Western Oregon University

Moderator:

Brandy-Joe Milliron, PhD Drexel University

A little bit about us....



Brandy-Joe Milliron



Emily Heying



Zubaida Qamar

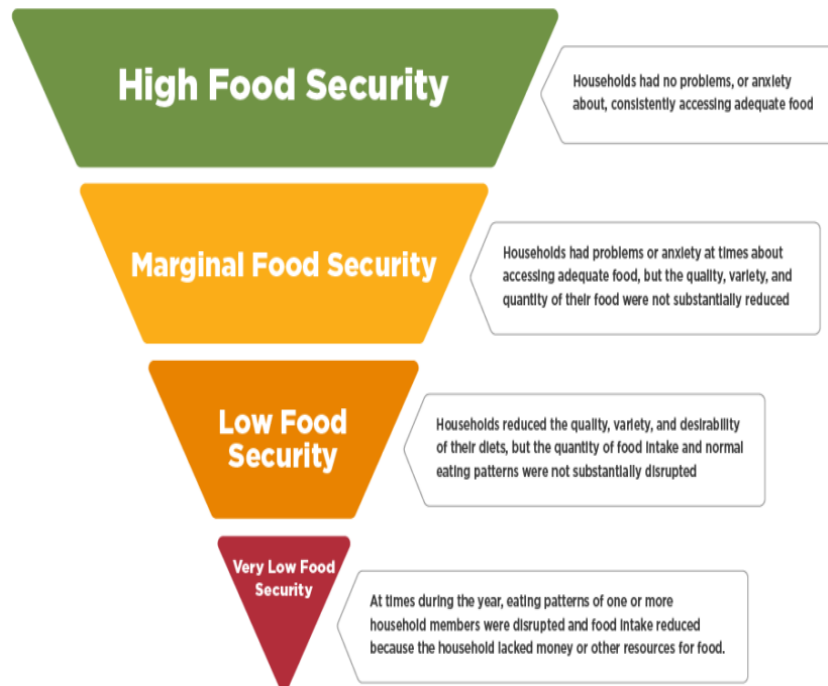


Megan Patton-Lopez

Today's Presentation Will Cover

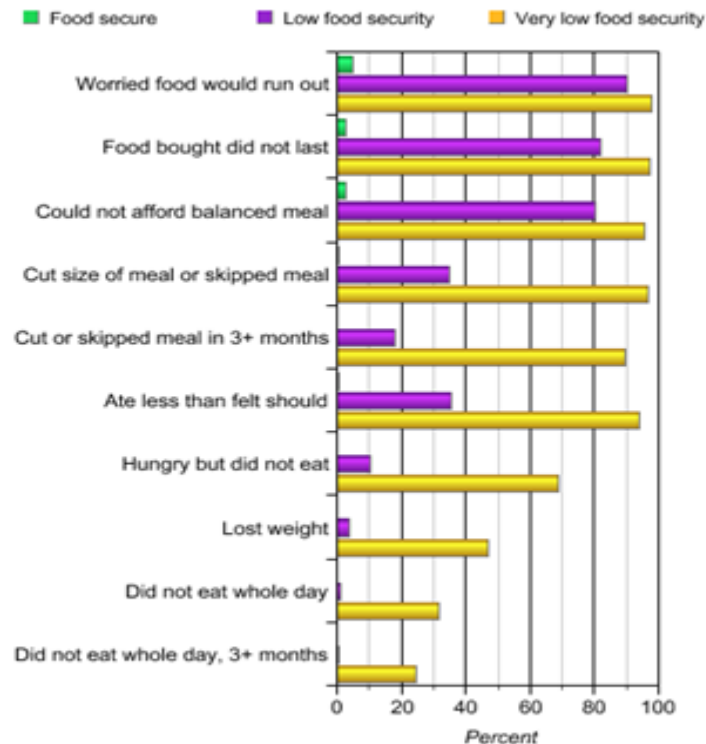
- Food Insecurity among College Students / Food Insecurity Work on the College Campus - what's happening?
- Campus Engagement to Create a Food Secure Environment (Emily)
- Food Security Awareness Campaign (Zubaida)
- Food Literacy (Megan)

Food security is vital for maintaining optimal health



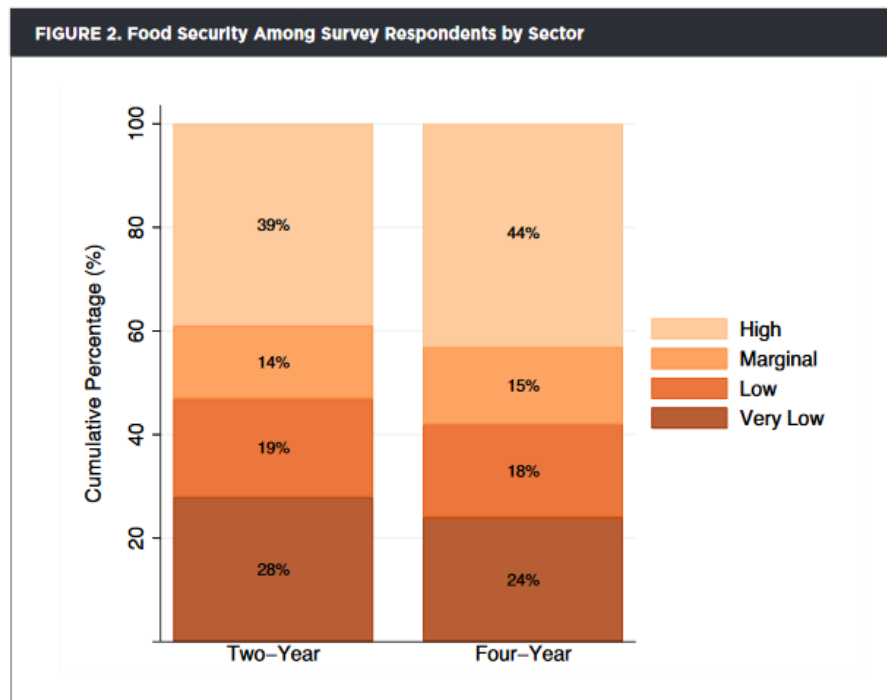
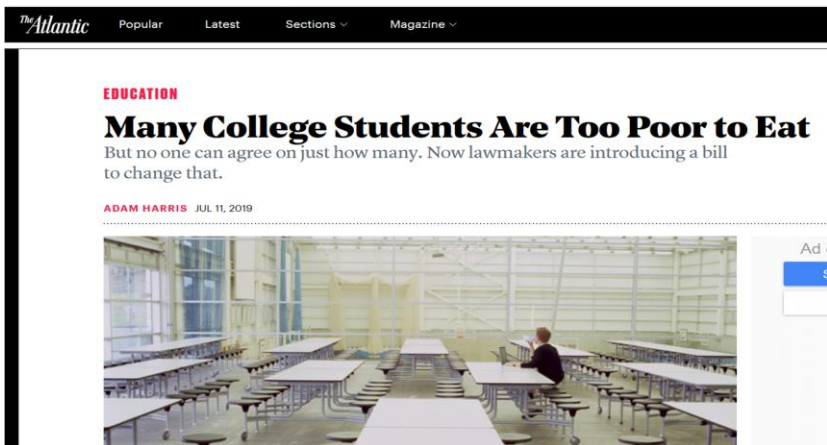
Source: Adapted from the USDA Economic Research Service.

Percentage of households reporting indicators of adult food insecurity, by food security status, 2018



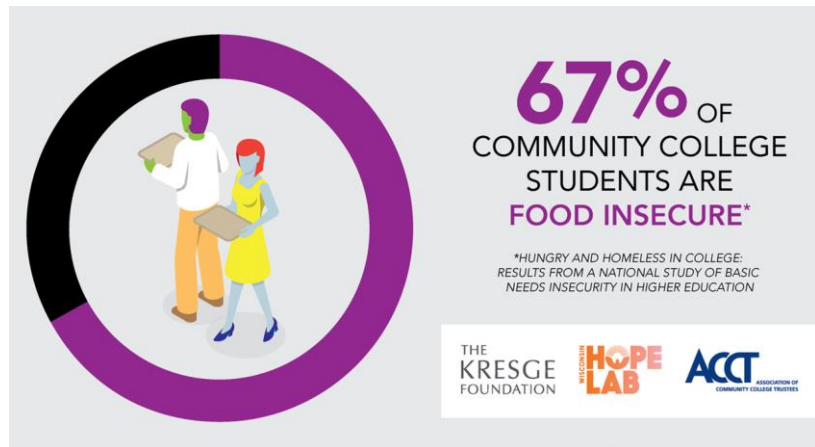
Source: USDA, Economic Research Service, using data from the December 2018 Current Population Survey Food Security Supplement.

Food insecurity in college is well-documented



Source: 2018 #RealCollege Survey

Notes: According to the USDA, students at either low or very low food security are termed "food insecure." For more details on the food security module used in this report, see Appendix C. Cumulative percentage may not add up to 100 due to rounding error.



Campus response to food insecurity



(Photo from Baylor University Campus Food Pantry)

**SWIPE OUT
HUNGER**

(Photo from Swipe Out Hunger)



— Produce stand inside the UC Berkeley Food Pantry. Reniel Del Rosario

A systematic approach to addressing food insecurity among college students

Just as **experiences** of food insecurity arise from multiple sources (i.e. individual characteristics, family life, community resources), **solutions** can also be developed on multiple levels.



Campus Engagement to Create a Food Secure Environment

Dr. Emily Heying, PhD
Saint Benedict/Saint John's University

COLLEGE OF
Saint Benedict



Saint John's
UNIVERSITY

Context: Consequences of Low Food Security



- Poor academic performance and retention (Patton-Lopez et al. 2014, Silva et al. 2015)

- Low self-esteem (Hughes et al. 2011)

- Increased risk of anxiety and depression (Martinez, 2018)



Food Insecurity Experiences May Vary by Institution

- Anecdotal stories about food insecurity from students
- Preconceived notions regarding “affordability” of college
- Liberal Arts (LA) Colleges:
 - Residential (<85% live on-campus)
 - Rely on Campus-Dining Centers and Campus-Retail Outlets
 - Rural Communities
 - Population <15,000
- Existing food security research -- limited specifics
 - Includes private liberal arts institutions, but doesn't separate data for individual schools and compare to other institutions
- My institution had no data.

Food Insecurity at a Rural, Liberal Arts Institution

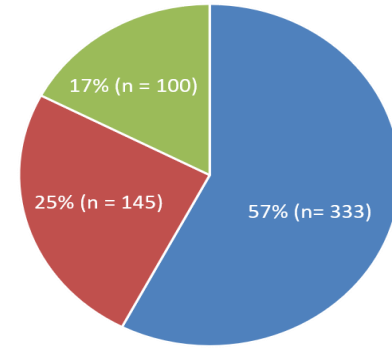
- **Methods Overview:**

- Online survey via email to 3400 students
- Demographics, Living situation, financials, dietary habits, academics, mental health, food security status (HFSSM- USDA)

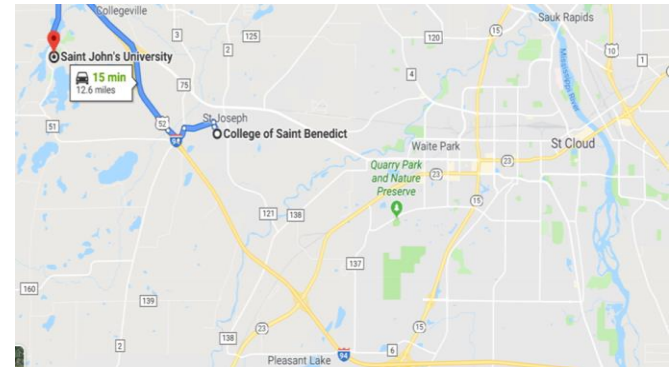
- **Key Findings:**

- One in three respondents reported low food security (n = 578)
- More likely to experience low or very low food security:
 - Male students
 - Students of color
 - First-generation students
 - Students living in apartment-style residences with smaller meal plans

Food Security Status of Respondents: April 2018



■ Food Secure ■ Low Food Security ■ Extremely Low Food Security



If you're ready to get started, ask yourself: What Already Exists?

- Does your institution have data on the prevalence or risk factors of food insecurity?
 - Basic Needs Center
 - Student Development
 - Residential Life
 - Health Center
- Who should conduct research/collect data?
 - Are there existing surveys that students already complete?
 - Are there outside organizations for hire or research that could help?
 - Is there a team you can create on campus to collect data?



So you have data...now what?

Consider which departments or stakeholders on campus can help you answer why food insecurity occurs. They also benefit from knowing the prevalence and risk factors that exist on your campus.



Possible campus stakeholders for conversations regarding food security

- Student Development
- Residential Life
- Culinary or Dining Services
- International and Intercultural Student Services
- Health Center
- Student Senates
- Faculty



Meetings were successful, but time consuming...

- **Benefits:**

- Valuable insight from stakeholders
- Greater perspective on institutional policies
- Document existing solutions
- Brainstorm future solutions

- **Difficulties:**

- Time consuming
- Scheduling
- **Keeping different stakeholders on the same page...**



Photo by Nick Morrison via Unsplash

Creating a Working Group or Task Force

- Started meeting in Fall 2019
- Created specific goals – short and long term
 - Explore community partnerships and build relationships (ex: community food shelf)
 - Provide support to students who stay on campus over academic breaks
 - Create structural change that prevents food insecurity and supports students
- Met monthly until COVID 19 pandemic in March 2020
- Share current and upcoming projects
 - Promotion of dining center hours via email
 - Promotion of pre-break shopping trips for groceries
- Discuss and delegate tasks to appropriate parties

Goals/Solutions - Food insecurity over breaks

Student Development

Screening for Food Accessibility

Communicated with residence life to add questions regarding food accessibility on housing forms.

Student Concerns Trigger Follow-Up Email

When a student checks “yes” to food accessibility concerns, the form is then sent to the assistant dean of students.

The dean follows up with the student via email or phone call

Resolve Issue

Often, the student concerns have been about meal plan usage: Can I use my meal plan over break? What campus dining facilities are open?

If student is concerned about access to food and cannot acquire groceries or use meal plan, a solution is discussed. An emergency fund can be used.

Goals/Solutions - Meal Plans

Dining Services

Some meal plans exacerbate food insecurity for male students

Male students automatically assigned a meal plan with 160 meal passes and \$200 flex bucks.

These students experienced significantly lower food security than male students on an unlimited meal plan and female students.

Joint presentation to board of trustees

Presented data and prices of meal plans. Joint effort from dining services and food security research.

Asked trustees to assign students to an unlimited meal plan instead of 160 meal pass plan.

Small changes to meal plan assignments

Starting in Fall 2020, 1st and 2nd year students will be assigned the unlimited plan.

Students can switch to 160 meal plan if they choose.

Dining services working with student orientation to communicate meal plan options.

Take Home Messages

1. Do not reinvent the wheel! Seek out existing data, researchers, or others on campus passionate about supporting food insecure students.
1. Be prepared to take the lead, but do not be afraid to delegate.
1. Goals. Goals. Goals. This is how you keep your team on track.
1. Food insecurity is a complex issue. Focus on short-term goals that can provide immediate support, but also push for long-term structural change that will prevent food insecurity in the future.



**Do it for the Gram:
Utilizing Instagram to
implement a student-
informed food
security campaign**

Zubaida Qamar, PhD, RD

Assistant Professor (Nutrition/Dietetics)

San Francisco State University

@savorandsucceed



Context

- 41.6% of CSU students indicated varying levels of food insecurity (Crutchfield and Maguire, 2016)
- California State University (CSU) Basic Needs Report
 - Increase awareness, access, and utilization of on-campus resources for students
- San Francisco State University
 - Commuter student population, urban campus
 - 47%-49% students report varying levels of food insecurity
- Food Resources available
- Many students not aware of resources
 - 85.2% of students not aware of food pantry (Crutchfield and Maguire, 2016)
 - 40.3% of students never heard of CalFresh (Crutchfield and Maguire, 2016)



Awareness Campaigns

- Public Health focused campaigns have varying effectiveness with regards to behaviors and knowledge (Anker et al., 2016)
- Visually appealing messages are shown to be more effective in delivering the targeted message (Zhaomeng et al., 2020)
- Effective campaigns utilize formative research to enable resonance with the messages and images for the target population (Funderburk et al., 2019)

Savor and Succeed Campaign development



- Systematic approach
- Student Input and feedback
 - Campaign name pilot-tested with students
 - @savorandsucceed
 - Story vs. post format
 - Pilot-tested with 7 students and 1 staff member for revisions
 - Feedback incorporated
 - Three rounds of revisions for posts/stories

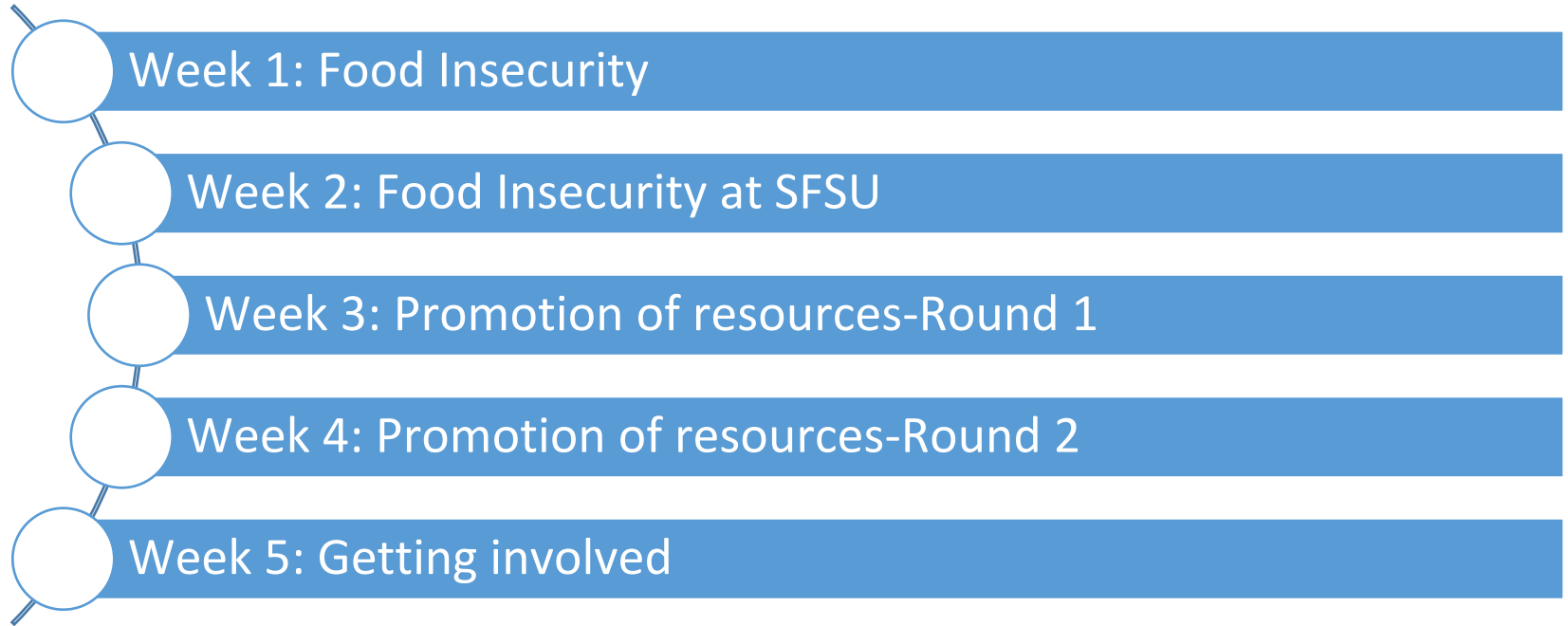
Savor and Succeed

Campaign development

- Recruitment
 - Tabling, Chalking
- Campaign materials
 - 3 posts/week
 - Relevant story content
 - Handouts
- Partnership with Health Promotion and Wellness (HPW) Center



Timeline for the campaign



Data from Instagram

- Engagement Data
 - Views, Shares, Likes, Comments, Reach, Impressions
 - Followers vs. Unfollowed
 - Polls
 - Profile visits
 - Website Clicks

Thank you for the feedback! 🙏



Have you seen our messages around campus?

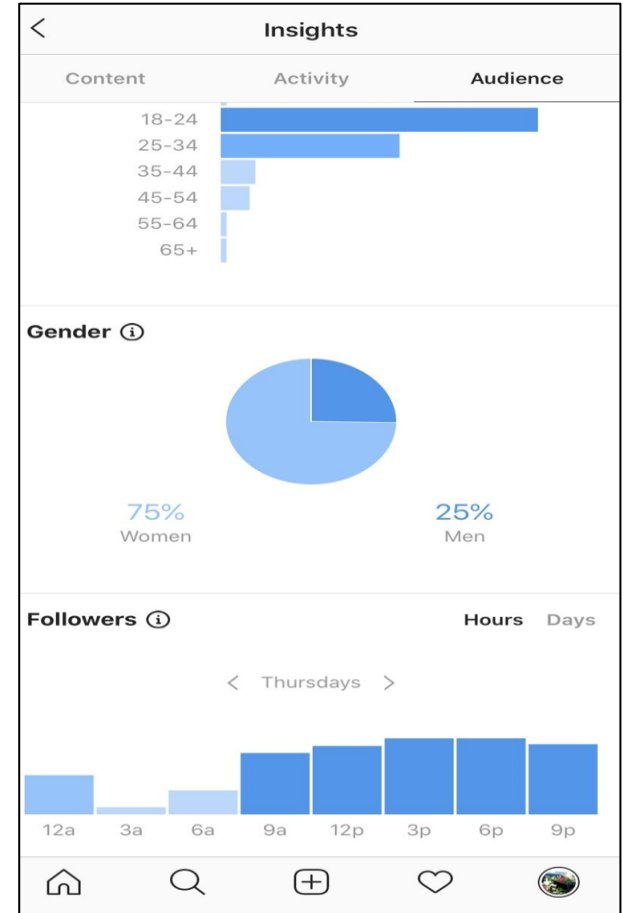
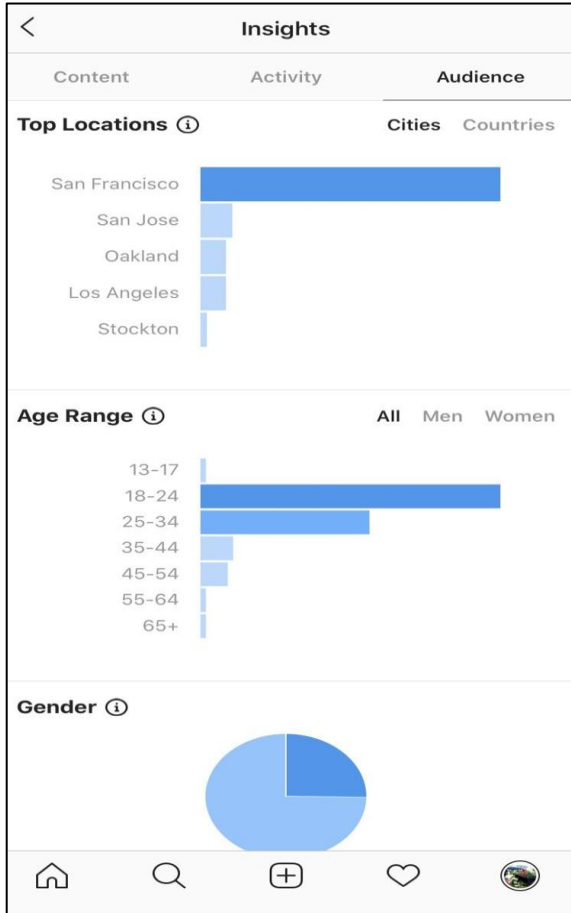
YES ●

77%

NO

23%

Demographics Data from Instagram



Post Analytics @SFStateCares by HPW

- Likes= 204
- Reach= 2090
- Impressions= 3082
- Shares= 25
- Saves= 17

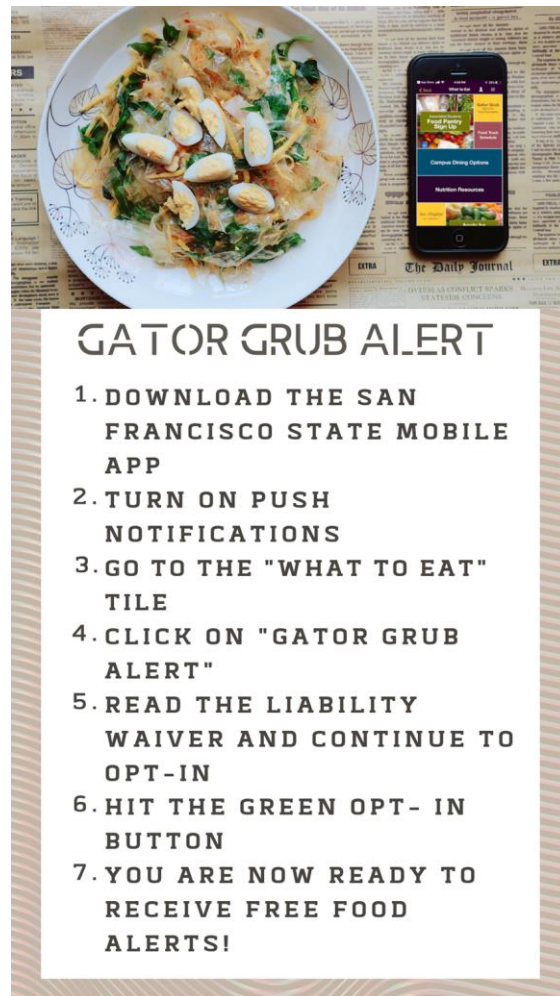
21% OF SFSU STUDENTS
HAVE SKIPPED A MEAL
TO SAVE MONEY*



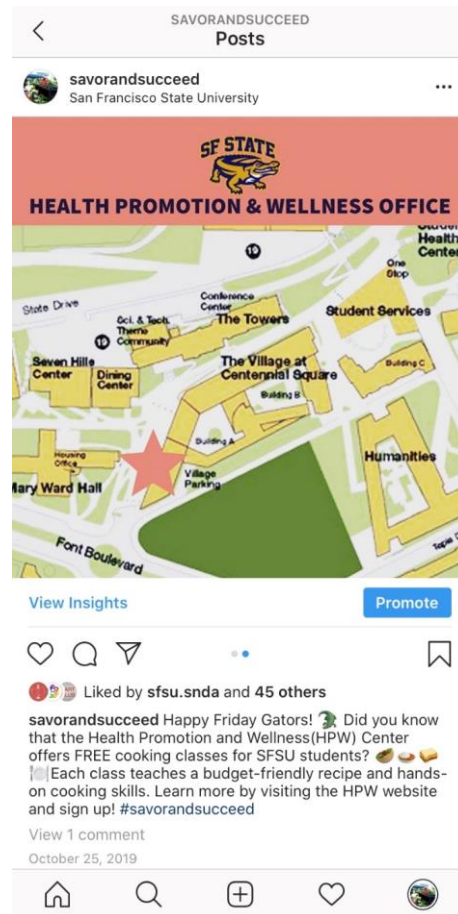
You're not alone

Story Analytics @SFStateCares by HPW

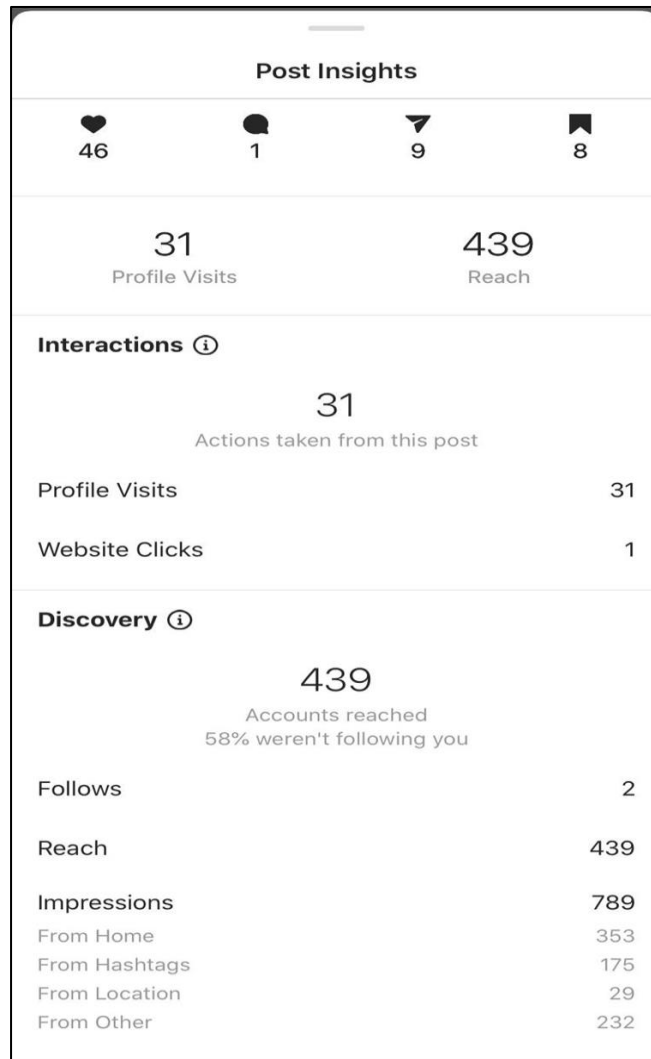
- Views = 622
- Reach= 622
- Impressions= 800
- Shares= 2



Sample post and Engagement data



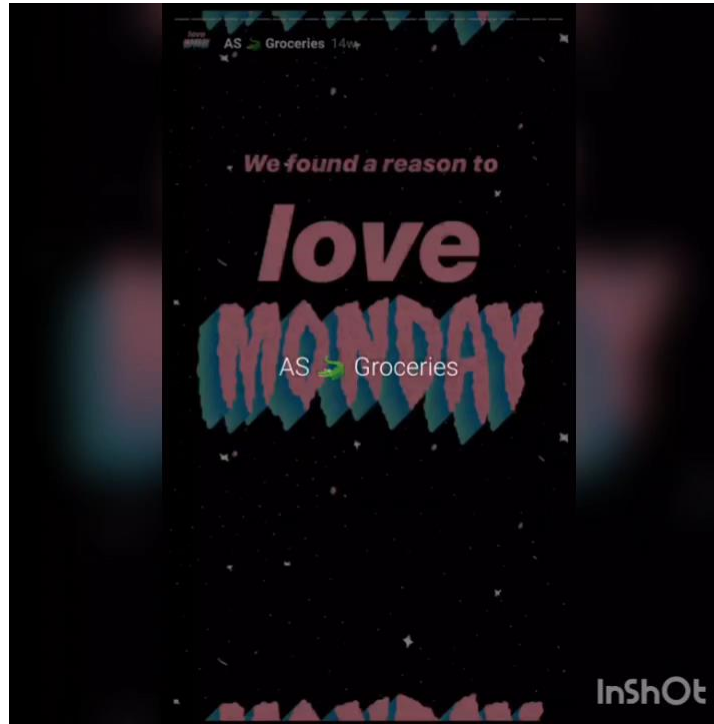
Engagement Analytics



Story Highlight-Food Pantry

- How to utilize the Food Pantry

<https://www.instagram.com/stories/highlights/17874251239471970/>



Lessons Learned

- Account from scratch vs. using established accounts with larger audience
 - Partnerships are important
 - SFSU main account
- Constant engagement and posting new content often
- Takes a lot of work to create content
 - Account monitoring





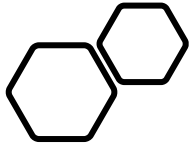
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**Thanks to Bianca and
Yahaira from
[@savorandsucceed](https://www.instagram.com/savorandsucceed)**

Lessons Learned

- Utilize hashtags for greater reach
- Fun project for the students
- Need creative minds
- Pilot-test everything and analyze feedback received
 - Student community vs. researchers/publishing
- Rest your hand if managing account from cell phone
- Walk the talk: Support related efforts
 - World Kindness Day



Partners

- Health Promotion and Wellness Center
- SNDA
- AS Environmental Resource Center
- SF State Dining Services
 - Sodexo
- AS Women's Center



Conclusions and Next Steps

Instagram seems to be an effective medium for exposure to prevalent issue of food insecurity on campus and for promotion of available resources.

Results have implications in developing large scale intervention studies to understand the effectiveness of social media for nutrition education and awareness purposes

Data Analysis for social media data, surveys and focus group will guide future interventions

Acknowledgements



Partners

The SF Build/NIH grant

Student team members

Instagram



Contact

Zubaida Qamar, PhD, RD

- Email: QZ@SFSU.EDU

- Follow the campaign
[@savorandsucceed](https://www.instagram.com/savorandsucceed)



Wolves in the Kitchen: Fostering Food Literacy Through General Education Curriculum

Megan Patton-Lopez, PhD RD
Western Oregon University
Assistant Professor



History of Food Insecurity at Western Oregon University

HE471 Program Planning Students Identify Campus Food Security as Concern

Students develop formative research project to assess food insecurity on campus.

Online survey (n=354)
59% food insecure

2012

Community Food Security Assessment

Online survey (n= 567), student focus groups (n=3), key informant interviews with faculty/ staff.

Listening forum with Academic Affairs Staff



2019-20

2011

2018-19

Campus Food Pantry Established

Organized and implemented by Student Government.

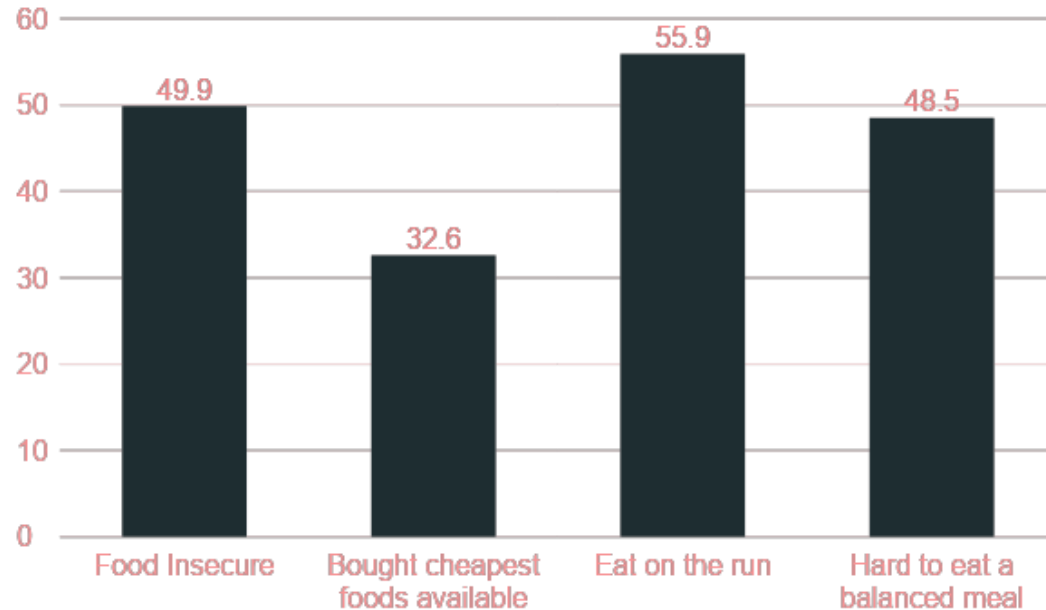


Wolves in the Kitchen Food Literacy Program

10 week food literacy curriculum imbedded within a general education health promotion course.

Community Food Assessment Findings

Student experiences of food insecurity, May 2019 (n=567)



Food Literacy among Emerging Adults



- Young adults (ages 18-25) are transitioning from adolescence to adulthood (emerging adults)
- Experiencing changes in physical activity and food-related behaviors while also adapting to life away from home (Worthy et al, 2010).
- Emerging adults often lack knowledge, skills, and resources required for basic food preparation (Byrd-Bredbenner, 2004; Larson et al., 2006; Clifford et al., 2009).
- A lack of food management skills can also increase risk for food insecurity (Anderson and Swanson, 2002; Alaimo, 2005; Mercille et al., 2012)

Theoretical Framework

Household risk factors	Household food security status	Food acquisition and coping strategies	Potential Short-term individual outcomes	Potential long-term individual consequences
Education	Food secure	Self-reliant	Distorted eating practices	Impaired physical and psychological health
Environment	Food insecure	Informal bartering	Diminished nutritional quality of diet	Poor nutrition status
Time		Formal institutions	Hunger	Functional impairment
Food skills or capabilities			Psychological suffering	Decreased academic achievement

Alaimo, K. (2005) Food insecurity in the United States: An Overview. Topics in Clinical Nutrition 20(4): 281-298. Gaines A. et al (2014) Examining the role of financial factors, resources and skills in predicting food security status among college students. International Journal of Consumer Studies 38(4): 374-384.

Wolves in the Kitchen Food Literacy Education Program

Objectives

Identify personal, family, and cultural values/ practices related to food.

Describe the importance of dietary diversity to health and wellbeing.

Discuss perceived barriers that influence current eating habits and foods consumed.

Develop, implement and evaluate a 7 day meal plan that incorporates fruits, vegetables and whole grains.

Describe 3 resource supports on campus for food insecure students.

Topics

Dietary culture, practices and habits

Dietary diversity

Mindful eating

Role of media and food advertising

Food insecurity & healthy food access

Personal cooking skills and practices

Healthy meal planning

Food insecurity and impacts on health/ academics

Environmental impacts of our food choices

Activities

Dietary/ Food Culture Interview and Reflection

Assess personal 24 hr diet recall for dietary diversity

Mindful eating journal for 7 days and reflection/ goal setting.

Salad in a Jar

Health Meal Challenge Competition-Campus Dining

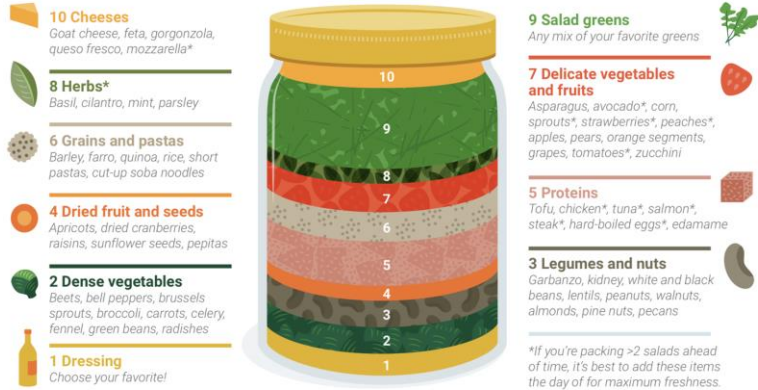
7 Day Meal Plan & Evaluation

Food pantry tour

Recipe testing and photo journal with reflection

Example of lesson: Preparing Healthy Meals for On-the Go

You want to always start with dressing at the bottom, so most ingredients remain fresh and untouched by dressing. After the dressing base, simply layer ingredients by order of sog-resistance, meaning heartier ingredients that can withstand dressing go in first. Here's an easy guide to help you build your mason jar salad:



"I thought that this opportunity was amazing! I am new to putting salad in a jar and have often struggled with what portion sizes are supposed to look like when you make a salad," the student wrote. "My biggest take away is that eating healthy does not have to be difficult and time consuming. It took five minutes to prepare a healthy meal and I was able to eat it on the go."



Feedback from students...

“My biggest take away from the activity is how easy it is to take food on the go. I had a habit of not eating throughout the day because I get so busy and do not have food with me, but the jar technique it will be easy to take food with me on the go”

“I think it was a good opportunity to try something new. For me, it was learning about using a jar for meals on the go, but there was also opportunity to learn about recipes and knife safety.”

“.... I want to make healthier decisions. I want to start meal prepping, and being more wise with the foods that I am putting into my body, and this activity has taught me a few ways how.”



Example: Food Hero Recipe Taste Test & Reflection

Reflection Questions

1. Why did you choose the recipe?
2. What did you like about the recipe (e.g. preparation method, amount of time to prepare, number of ingredients, final outcomes- taste)?
3. Were there any challenge with finding a recipe? Describe.
4. Were there any challenges preparing the recipe? Describe.
5. How often in the past week have you prepared a meal using multiple ingredients?
6. What recommendations and/or changes would you suggest for the website or recipe?



Partners

- WOU Dining Services
- Food Pantry Staff and Volunteers
- Division of Health and Exercise Science
- General Education Committee
- Student Affairs Staff
- Students



Lessons Learned

Students across academic disciplines increase the diversity of lived experiences and cultures related to food and dietary practices.

Students satisfaction with activities associated with hands-on and experiential lessons (food preparation; dining services health meal challenge; recipe testing).



Conclusions and Next Steps

Students are engaged and interested in food literacy.

Opportunities to make connections across campus to build a culture of food literacy.



Source: Pinterest

Contact

Megan Patton-Lopez, PhD, RDN

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Western Oregon
University
Community Health

What have we learned from our collective work?

Addressing food insecurity requires us to move beyond a food pantry- it is a multi-layered issue that requires a multi-disciplinary effort.

Need to understand the context of food insecurity on each campus.

Dynamic- responding to changes within the context (e.g. COVID-19).





Questions

What suggestions do you have
for nutrition educators, dietitians,
and faculty at Higher Ed
institutions for working with
campus- community partners to
build a culture of food security
on campus?

Collaborate with others outside of
your department

Patience and Perseverance

Be resourceful

What are key resources that you have used in your work that others may find useful if working in this area?

Data. Data. Data.

Leverage your network

Seek out campus resources
(people, space, services)



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Thank you!