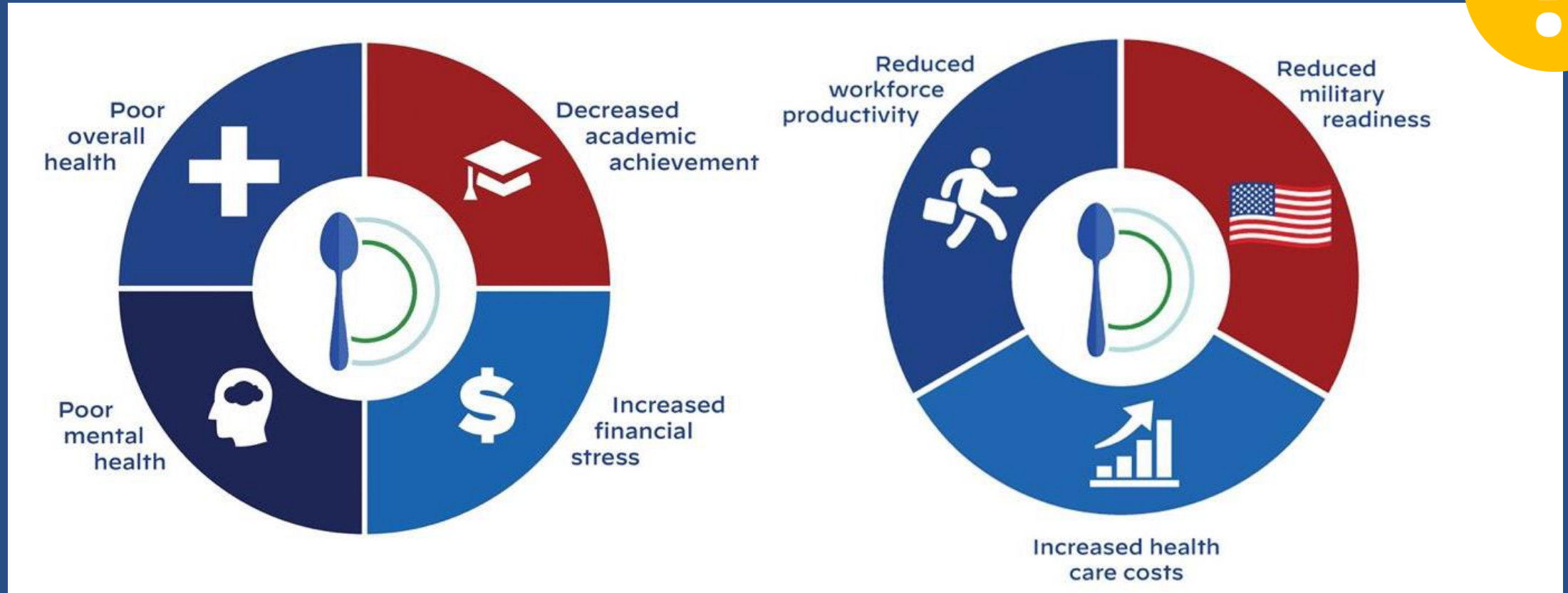


*Dean's Distinguished Lecture Series*

# **Advancing Nutrition Equity in the 21<sup>st</sup> Century**

# Advancing Nutrition Equity with Policy, Systems & Environmental Change

# What is the impact of food insecurity & diet-related disease in the U.S.?



Source: Biden-Harris Administration National Strategy on Hunger, Nutrition, and Health. September 2022.

# What factors contribute to food security?

## Availability

- Is healthy food available?
- Relative to other foods?



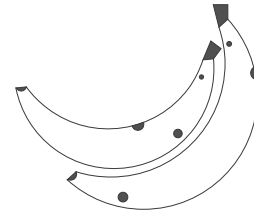
## Access

- Is it affordable?



## Adequacy

- Is it nutritious?
- Is it safe to consume?



## Acceptability

*“ Latino food in particular, it is tortillas, salsas, sometimes red meat or chicken. We have had to change our food for canned food, for sandwich bread.”*

Payán DD, Perez-Lua F, Goldman-Mellor S, De Trinidad Young M-E. Rural household food insecurity among Latino immigrants during the COVID-19 pandemic. *Nutrients*. 2022;14(3):2772.

## Agency

- What policies or processes exist?



Source: <https://www.torontomu.ca/foodsecurity/>

**Food/Nutrition Environments are Important**

**1 in 3 families  
who fed infants formula  
reported using 1+ deleterious  
formula-feeding practices  
during the COVID-19 pandemic**

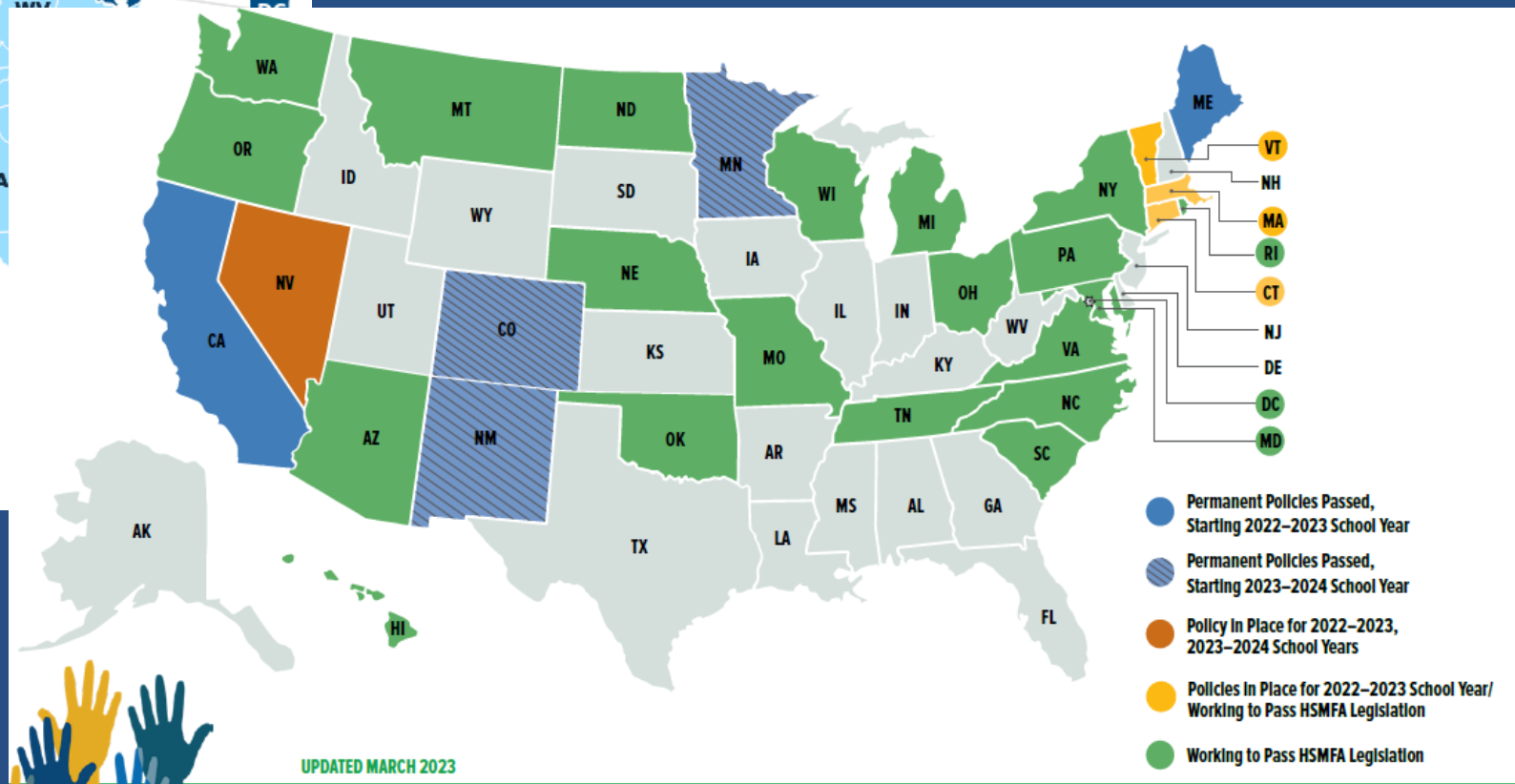
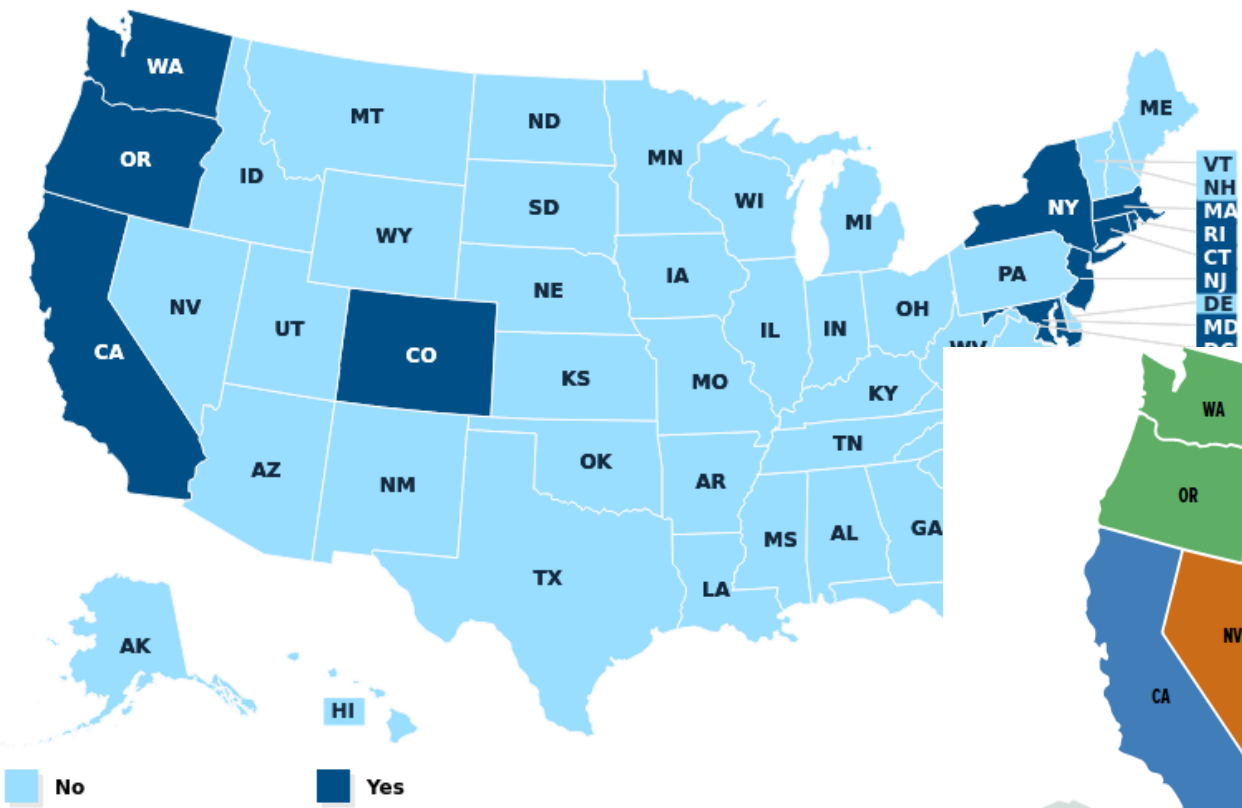
Marino JA, Meraz K, Dhaliwal M, Payán DD, Wright T, Hahn-Holbrook J. Impact of the COVID-19 pandemic on infant feeding practices in the U.S.: food insecurity, supply shortages, and deleterious formula-feeding practices. *Maternal & Child Nutrition*. 2023;e13498:1-14.

**Structural barriers exist to  
accessing school lunch meals in  
low-income communities (e.g.,  
long lines, administrative issues)**

Payán DD, Sloane DC, Illum J, Farris T, Lewis LB. Perceived barriers and facilitators to healthy eating and school lunch meals among adolescents: a qualitative study. *American Journal of Health Behavior*. 2017;41(5): 661-669.



# Shift from a patchwork of state laws to federal legislation



SOURCE: Kaiser Family Foundation's State Health Facts.

UPDATED MARCH 2023

Learn more at [www.FreeSchoolMealsforAll.org](http://www.FreeSchoolMealsforAll.org)





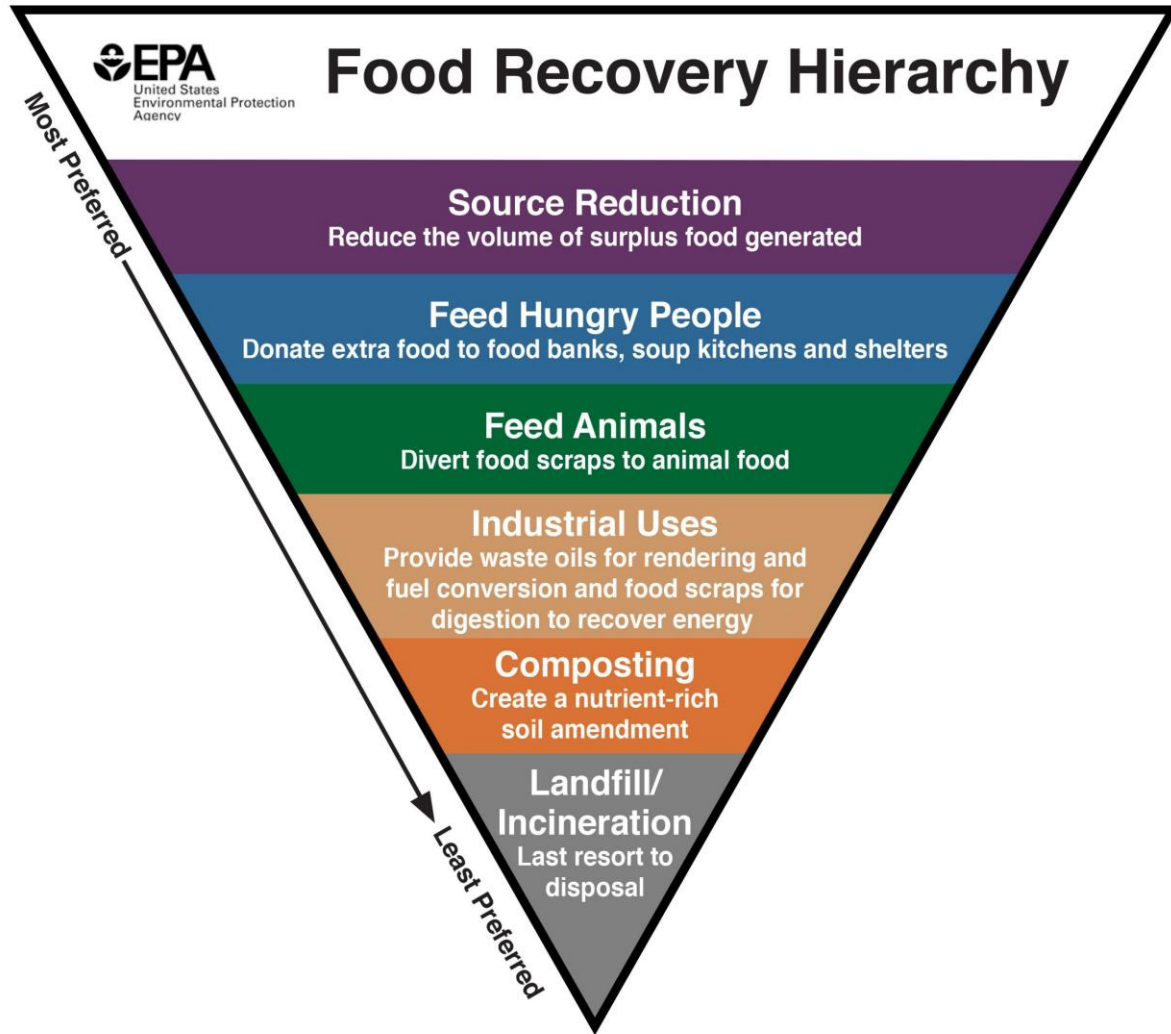
Let's Make This Real

Can You Think of Other Examples?



Photo: Erick Schmal // MexicanElite on [Instagram](#)

# The Path to Achieving Health Equity



## Environmental Impacts of U.S. Food Waste: EPA

What resources go into a year of food loss and waste in the U.S.?

\*excluding impacts of waste management, such as landfill methane emissions



**Greenhouse gas emissions** of more than 42 coal-fired power plants

**Enough water and energy** to supply more than 50 million homes

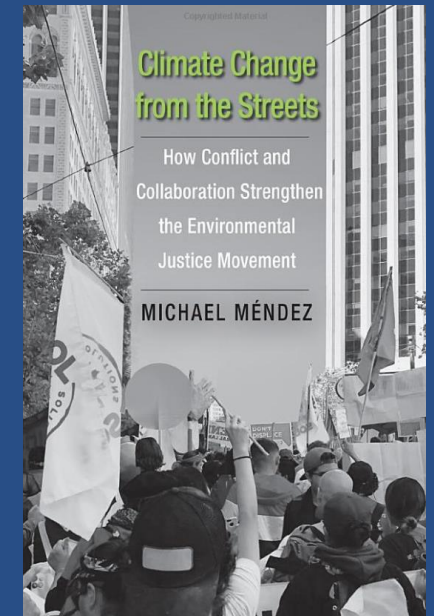
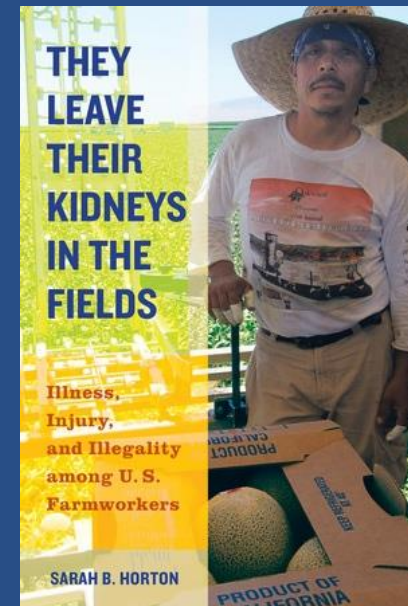


The **amount of fertilizer** used in the U.S. to grow all plant-based foods for U.S. human consumption

An **area of agricultural land** equal to California and New York

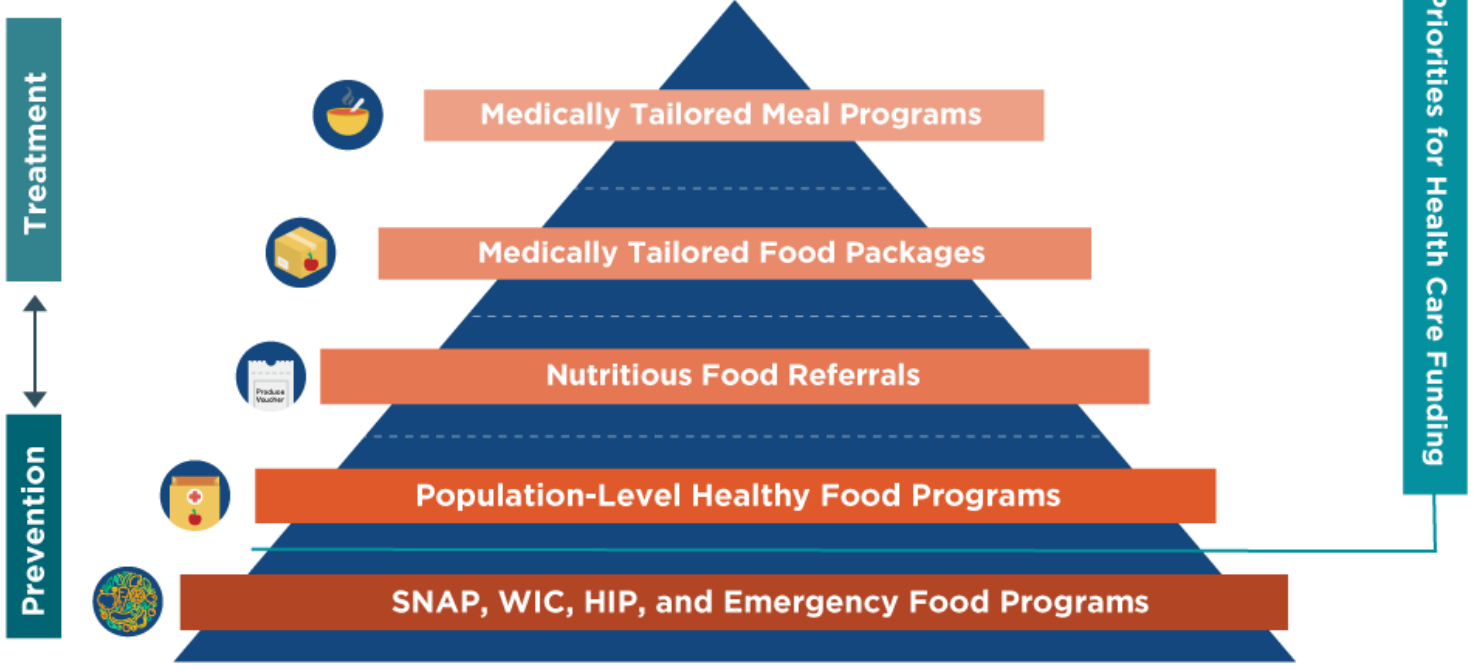


Learn more: [www.epa.gov/land-research/farm-kitchen-environmental-impacts-us-food-waste](http://www.epa.gov/land-research/farm-kitchen-environmental-impacts-us-food-waste)





# FOOD IS MEDICINE PYRAMID



Source: <https://abasto.com/noticias/northgate-gonzalez-market-celebrando-40-anos-de-exito-y-trabajo-duro/>

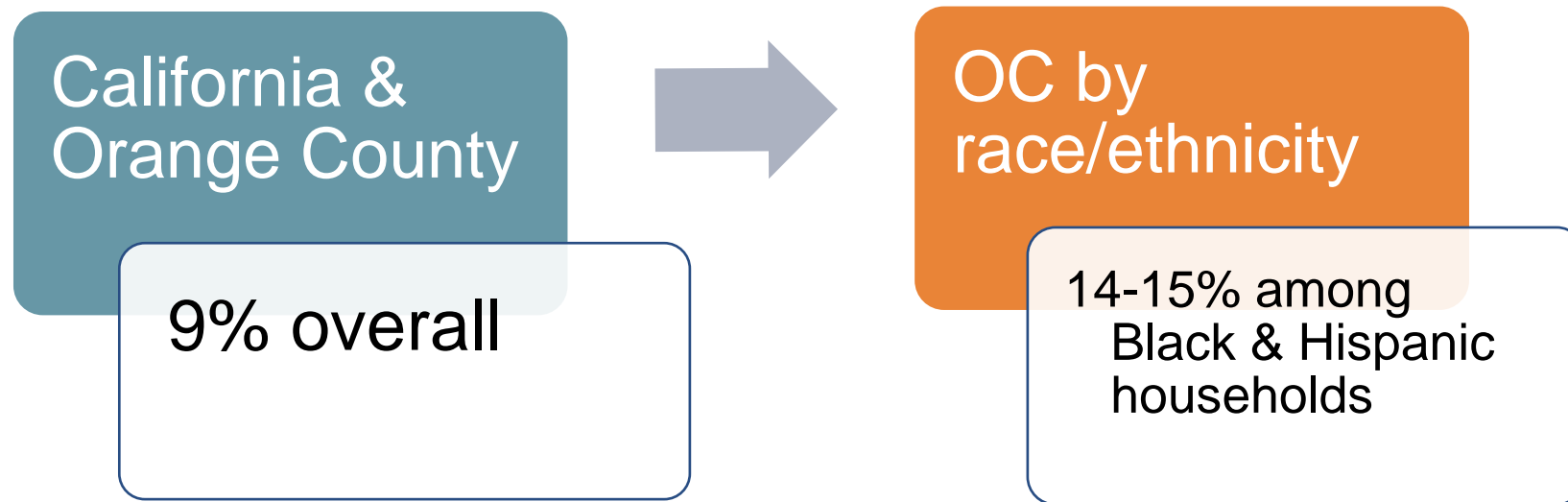
# Nutrition Equity in the First 1000 Days

Opportunities to Advance Maternal and Child Health

# Nutrition in the First 1000 Days

Period from conception until child is age 2 years

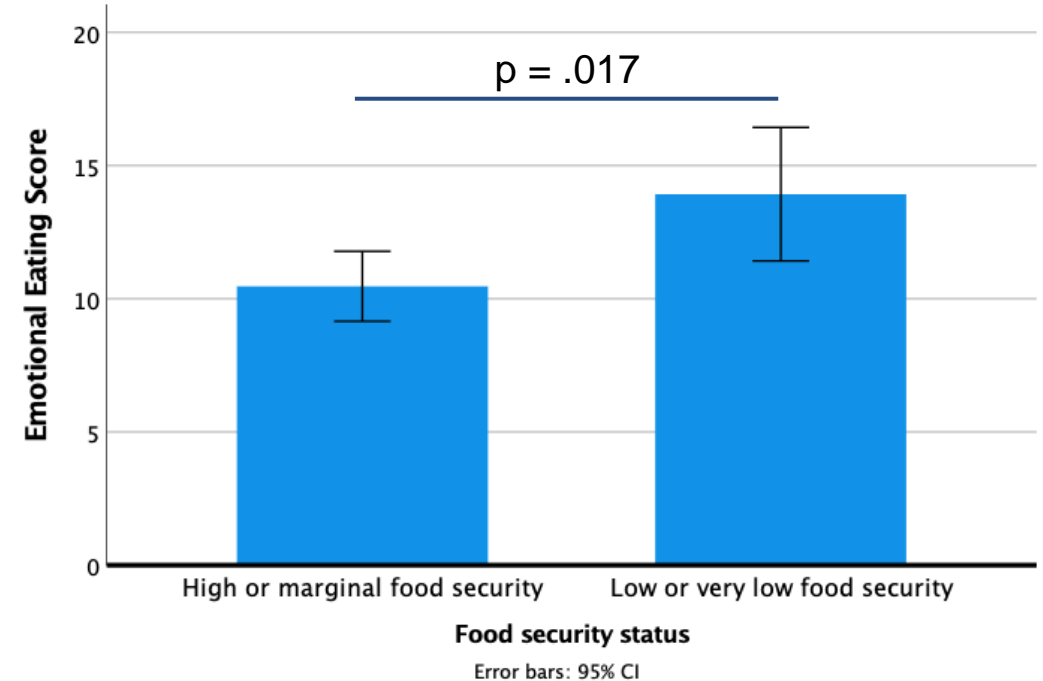
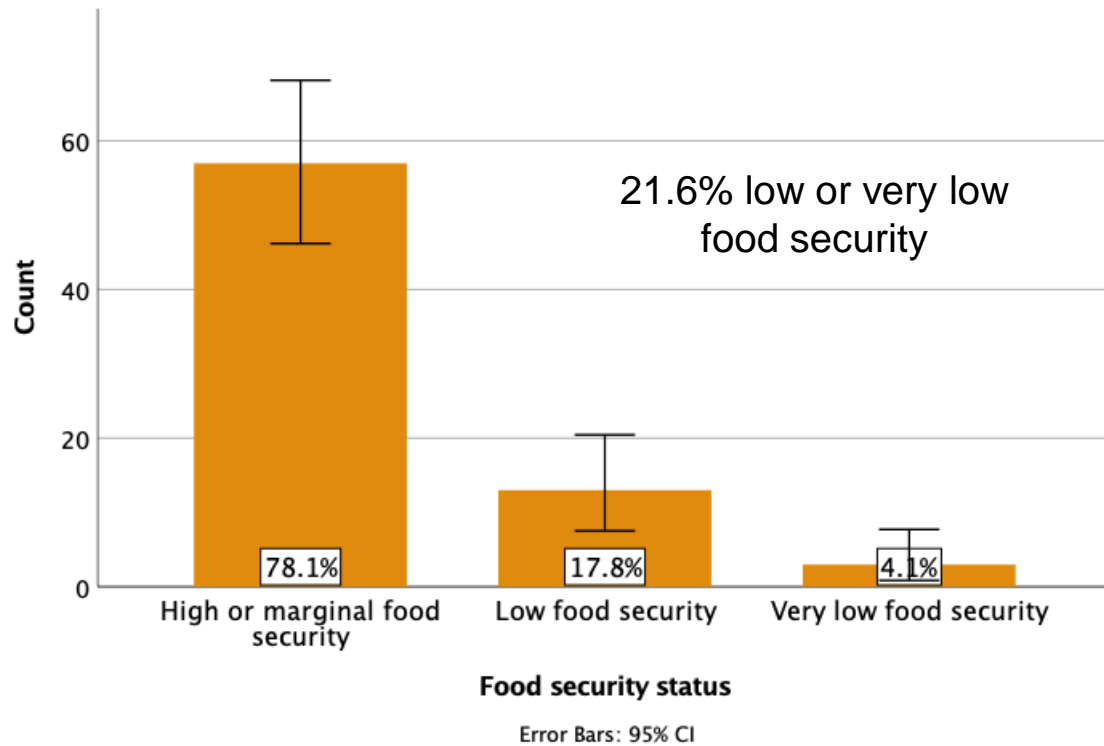
- Critical window of development
- Nutrition influences lifelong propensity for health and disease risk
- WIC and CalFresh support access to healthy food
- Persistent inequities exist for food insecurity



<https://map.feedingamerica.org/county/2020/overall/california/county/orange>

# Food Insecurity, Diet Quality & Eating Behaviors

Pregnant Moms in Orange County (n=74; 84% self-identified as Hispanic)



- No difference in diet quality (Healthy Eating Index-2015) according to food security status
- Higher tendency for emotional eating behavior among those with low/very low food security

# Need for Food Resources in First 1000 Days

Survey of n=147 providers and advocates from healthcare, childcare, community and governmental agencies across California, serve low-income families



## Knowledge & Skills

- Nutrition education
- Food use and management
- Point of purchase decisions



## Navigation & Advocacy

- Awareness and connection
- Support



## Access

- Access to healthy food
- Access to food resources



## Environment

- Home environment
- Community environment

# Need for Food Resources in First 1000 Days

## Perceptions Shared

“Information on how to cook in a healthful way. Education on how to select and store fresh fruits and vegetables and other whole foods.”

*Community Health Manager*

“...The back and forth between Medi-Cal managed care/ providers/WIC office adds undue stress on the client.”

*Community Health Manager*

“We are in a rural area and the cost of gas has become an increasing hardship when trying to access food resources.”

*Registered Dietitian*

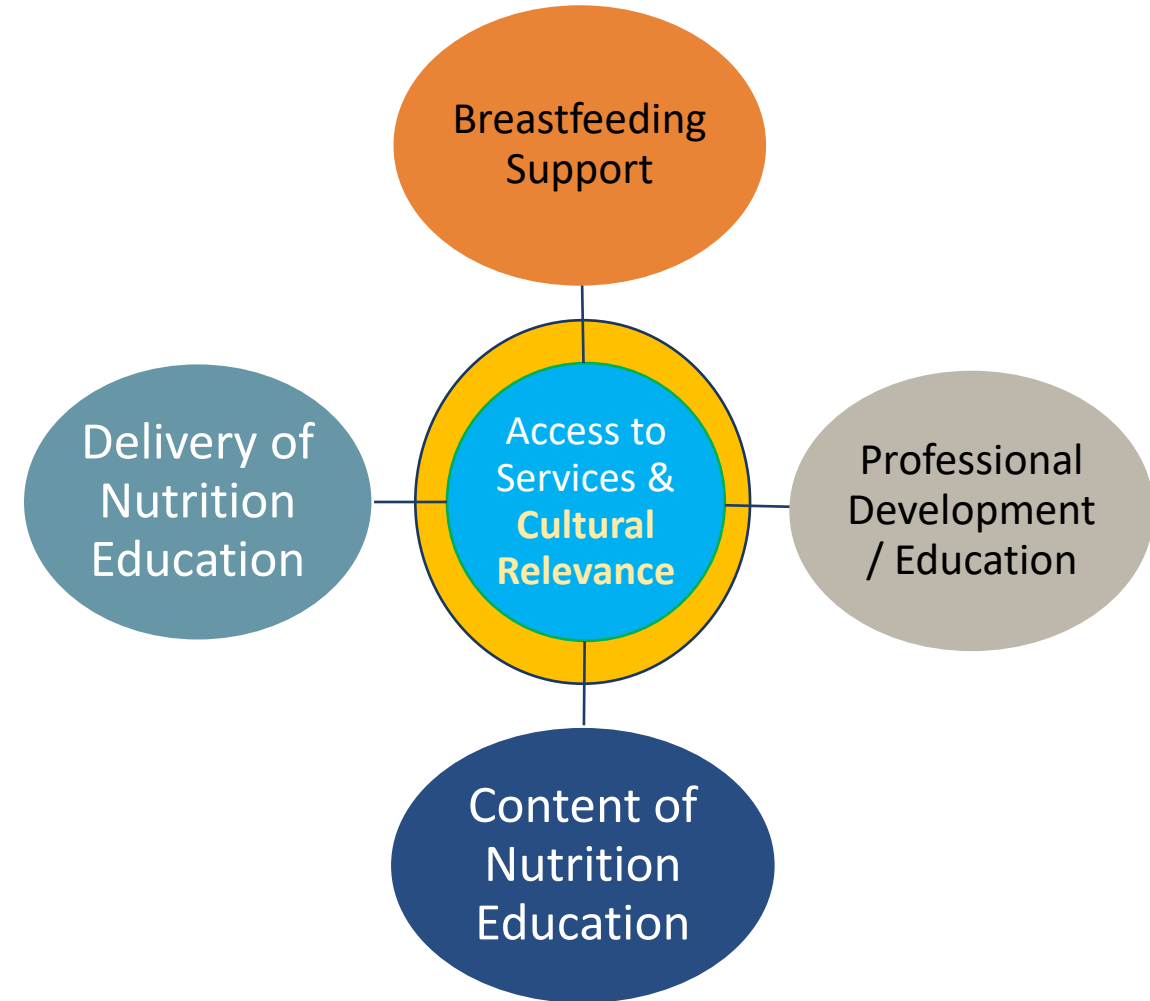
“Walkable, in neighborhood access to appropriate food.”

*Pediatrician*

# Nutrition Needs Assessment in First 1000 Days

## Overall Results

- 1) **Improved access** to nutritious food and diverse educational resources for low-income families
- 2) **Improved cultural responsiveness** in the delivery and content of nutrition education
- 3) **Resource navigation and support** to assist families in accessing resources and offering guidance responsive to parent/family needs
- 4) **Attention to social and structural determinants of health** to address competing challenges/priorities
- 5) **Simple, focused, consistent, and tailored** nutrition education messaging and resources
- 6) **Further professional development opportunities** on early life nutrition and key micronutrients for fetal and early child development



# Current Projects and Next Steps

Advancing nutrition equity in the first 1000 days

Develop simple, focused, consistent nutrition messaging

Disseminate culturally responsive nutrition education resources

Assess family needs and desires for food skills training

Deliver culturally responsive culinary nutrition training programs





# Community Engagement

Healthy Food Access at Northgate Gonzalez Market

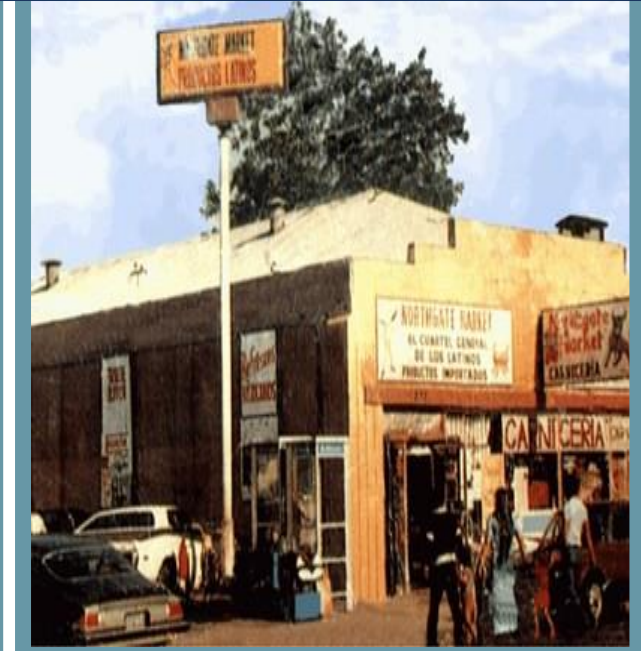


Family-Owned Hispanic Grocer



42

Grocery stores located in Southern California







EVERY VISIT HAS A STORY.™



650

Health & wellbeing events at our stores or within the community in 2022

## Cooking up Change Program



# Cooking up Change

A Healthy Schools Campaign (HSC) National Program



## Engage

with parents, teachers,  
school leaders and  
policymakers



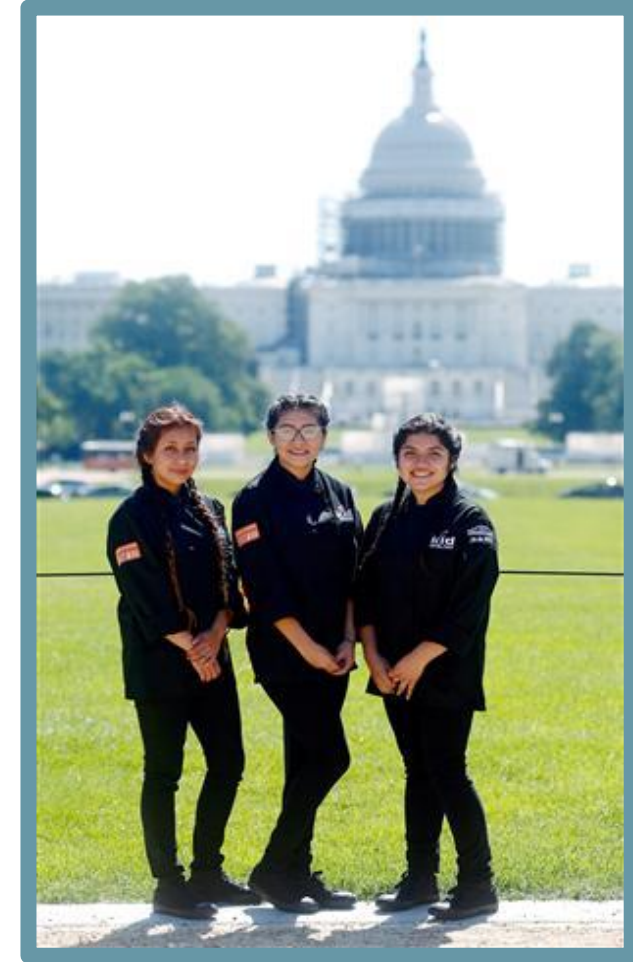
## Support

schools to address student  
health needs



## Publish

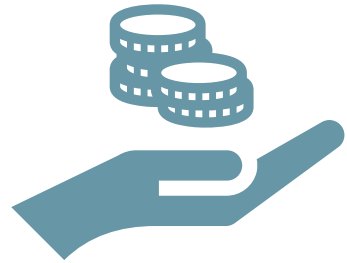
reports, policy  
recommendations  
and toolkits







EVERY VISIT HAS A STORY.™



# \$4 Million

Funded to communities through grants, vouchers/gift cards, free health screenings and food donations in 2022



## ¡Más Fresco! More Fresh Program



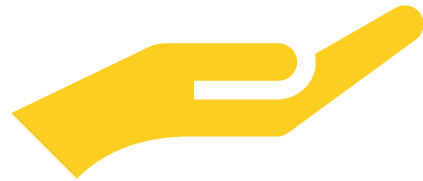
# ¡Más Fresco! More Fresh Program

Nutrition incentive program utilizing point-of-sale technology in a retail setting



## Promote

consumption of healthy foods, including fresh fruits and vegetables



## Support

community members experiencing health disparities, including food insecurity and diet related chronic disease



## Improve

nutrition and health status among program participants



**¡más fresco!**  
MORE FRESH

A Special Program for *CalFresh* Participants.

---

**Earn up to \$100/month to buy more fruits and vegetables.**

---


**Enroll Now!**  
[www.MasFresco.org](http://www.MasFresco.org)

Participants are randomly assigned to receive either \$2 or \$4 rebate dollars for each \$1 CalFresh EBT spent of fruits & vegetables at participating Northgate González Markets, up to \$100/month.

**Program Requirements**

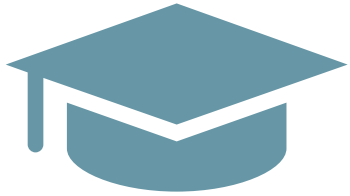
- Currently enrolled in CalFresh.
- 18 years of age or older.
- One participant per household.
- Shop at participating Northgate González Markets.

**For More Information**  
888-282-2711    [morefresh@ucsd.edu](mailto:morefresh@ucsd.edu)    [www.masfresco.org](http://www.masfresco.org)

  United States Department of Agriculture    







\$250,000

Distributed to scholarships from the González Reynoso Family Foundation in 2022

**UCI Public Health** **González Reynoso Family Foundation**

About ▾ Admission ▾ Degrees & Programs ▾ Departments ▾ Research ▾ News & Media ▾

[Home / News & Media](#)

**Northgate Gonzalez Market invests in future public health practitioners**

A graduate student scholarship was established to be awarded to a Santa Ana resident or graduate who plans to practice in that community



**Familia GONZALEZ REYNOSO FOUNDATION**

# **From Hunger to Health: The Road Forward to Nutrition Equity**

# Reaching People at the Right Moment

Focus on the first mile and the proactive lifestyle changes.

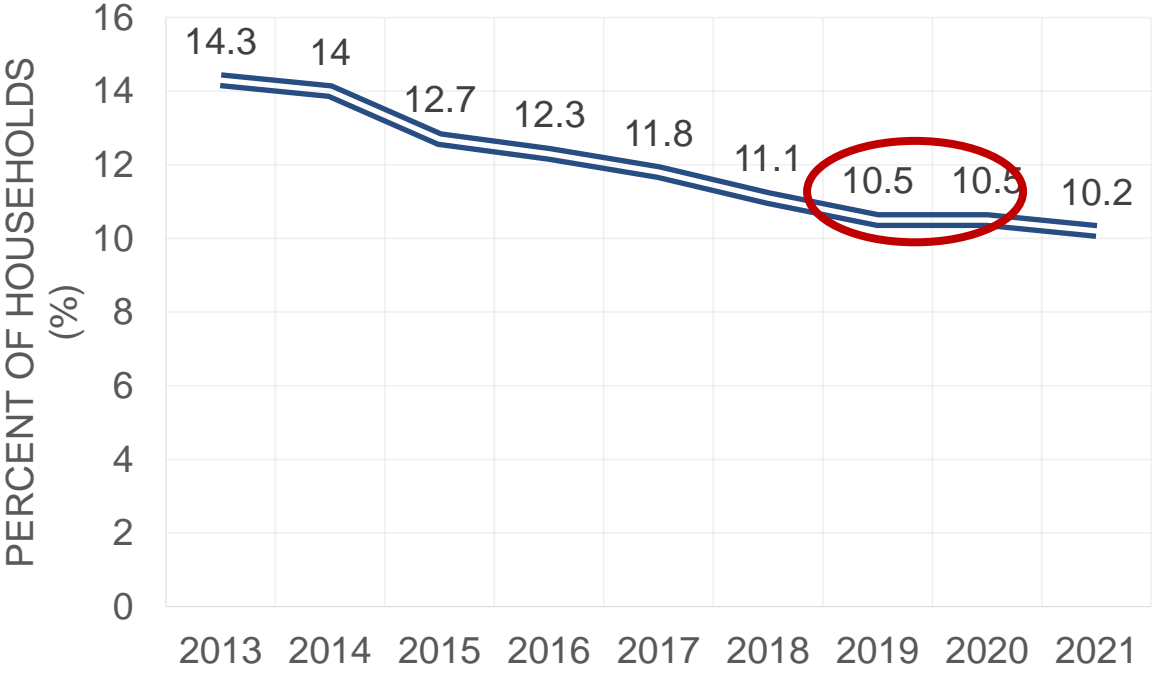
75%

healthcare spending goes toward the  
treatment of chronic diseases



# Food Security in the United States

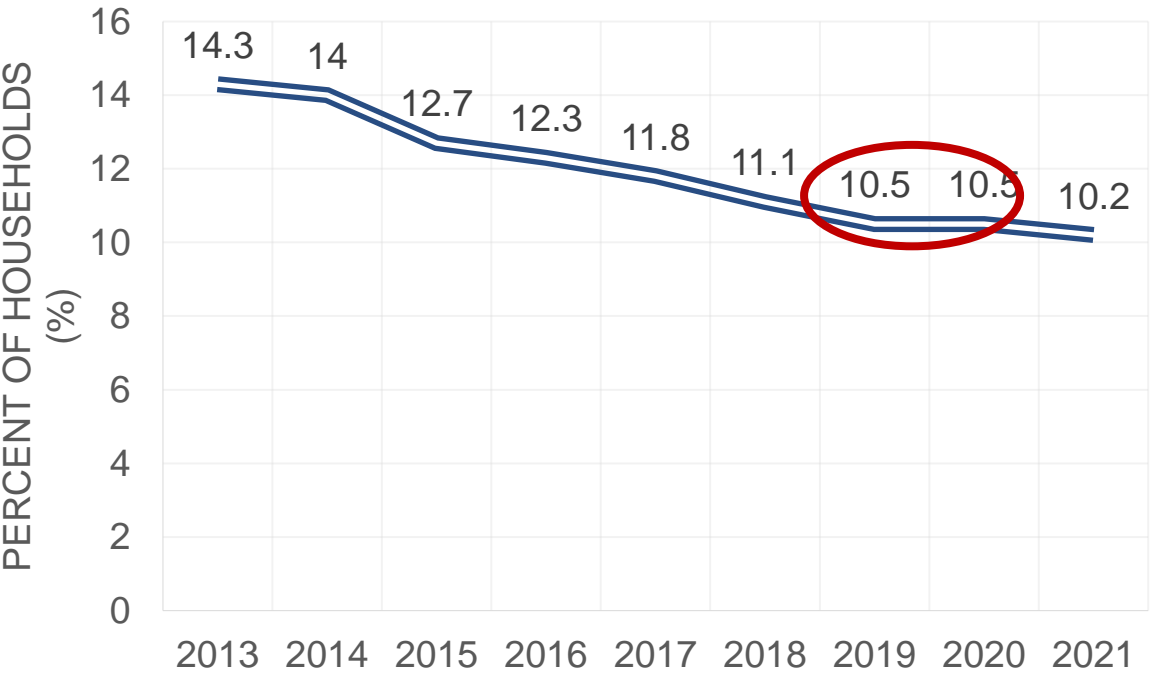
Trends in Food Insecurity in US Households, 2013-2021



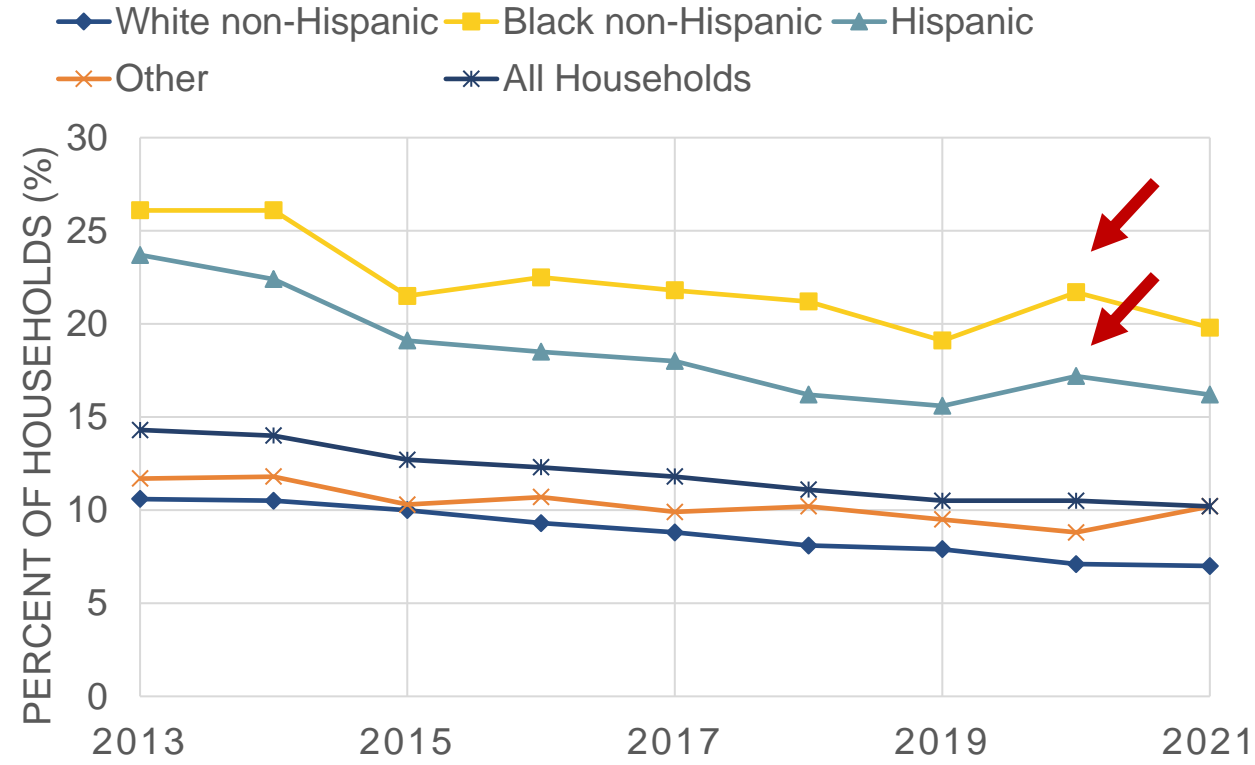
Calculated by USDA, Economic Research Service, using Current Population Survey Food Security Supplement data.

# Food Security in the United States

Trends in Food Insecurity in US Households, 2013-2021

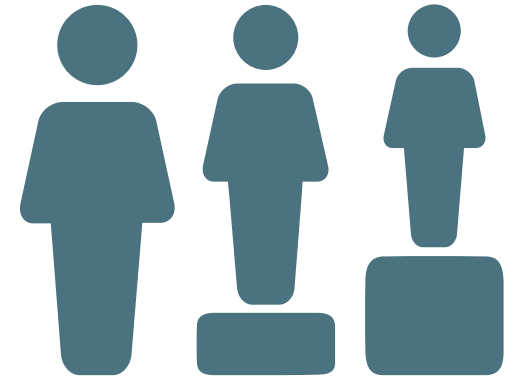
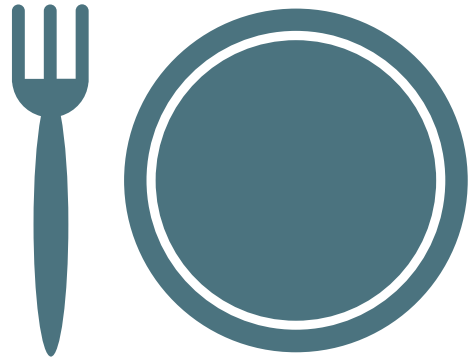


Trends in Food Insecurity by Race and Ethnicity, 2013-2021



Calculated by USDA, Economic Research Service, using Current Population Survey Food Security Supplement data.

# Nutrition Security



**Nutrition  
Security**

=

**Food  
Security**

+

**Diet  
Quality**

+

**Equity**

Consistent and equitable access to healthy, safe, affordable foods essential to optimal health and well-being.

# The White House Conference - 2022





# College Food and Basic Needs Security

1 in 3

college students experienced food insecurity before the pandemic

# College Food and Basic Needs Security



## What is the UCI Basic Needs Center?

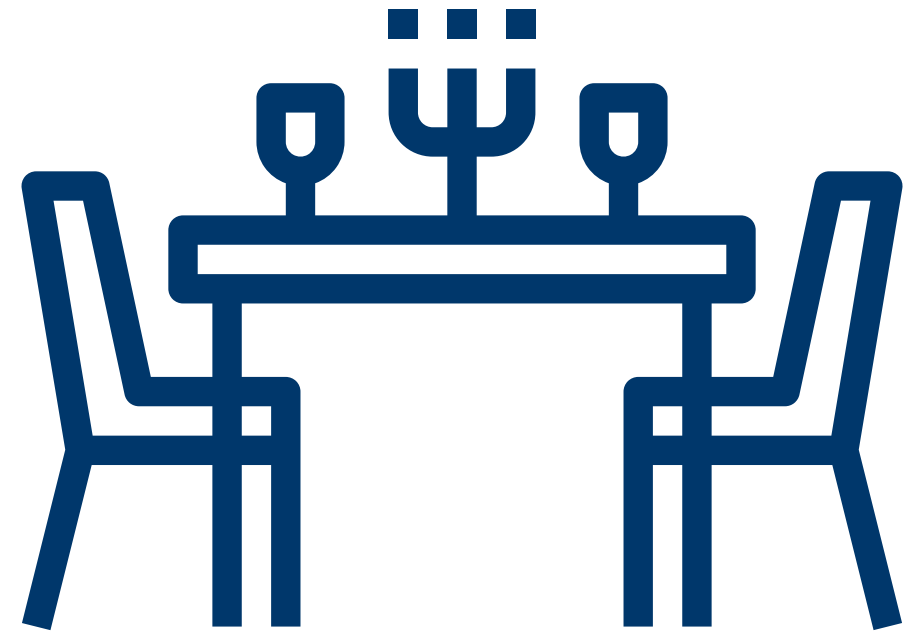
UCI Basic Needs Center offers a variety of services to UC Irvine students to help them meet their basic needs. From food pantry visits, CalFresh Application Assistance, to consultations with our social workers. We strive to offer support from a holistic approach.

[basicneeds.uci.edu](https://basicneeds.uci.edu)

# Giving New Partners a Seat at the Table

Cross-Sector Collaborations to Address Advance Nutrition Equity

Collaborating across sectors and disciplines, we can develop more **comprehensive and sustainable solutions** that address the **root causes of food insecurity**, such as poverty, inequality, and lack of access to healthy food options.



# Leveraging New Partnerships & Technology



# Moderated Discussion