

Supply Chain Disruptions: Impacts on Vulnerable Communities - A Workshop

SEPTEMBER 12, 2023

Panel 1: Community Voices: Disruptions and Challenges

- *Reverend James L. Caldwell, Founder, Director Coalition of Community Organizations*
- *Lynda Zambrano, Executive Director, National Tribal Emergency Management Council*
- *Martine Hippolyte, Director of Community Engagement, FRESHFARM*
- *Sherry Menor-McNamara, President & CEO, Chamber of Commerce Hawaii*
- *Benjamin Lyle Ruddell (Committee Member), Professor, School of Informatics, Computing, and Cyber Systems, Northern Arizona University*



Rev. James L. Caldwell
5901 Market St.
Suite 15310
Houston, TX 77020
(832) 231-9176
cocohoustonnow@gmail.com

Coalition of Community Organizations

Impact of Supply Chain Disruptions on Underserved Communities

Reverend James L Caldwell, Founder/Director, Coalition of Community Organizations

Fifth Ward, Houston, Texas

Supply chain disruptions can have significant and often disproportionate impacts on local communities, especially socially and climate vulnerable populations like those in Houston, Texas, during events like the COVID-19 pandemic or natural disasters. Here's an explanation of how these disruptions affect them:





Limited Access to Essentials

Underserved communities often have limited access to essential goods and services even during normal times.

Supply chain disruptions from the pandemic and Winter Storm power outage exacerbated this issue by causing shortages of basic necessities such as food, water, and medicine.

During the COVID-19 pandemic, for instance, supply chain disruptions led to shortages of items like personal protective equipment (PPE) and disinfectants, and FOOD making it harder for vulnerable individuals to protect themselves.

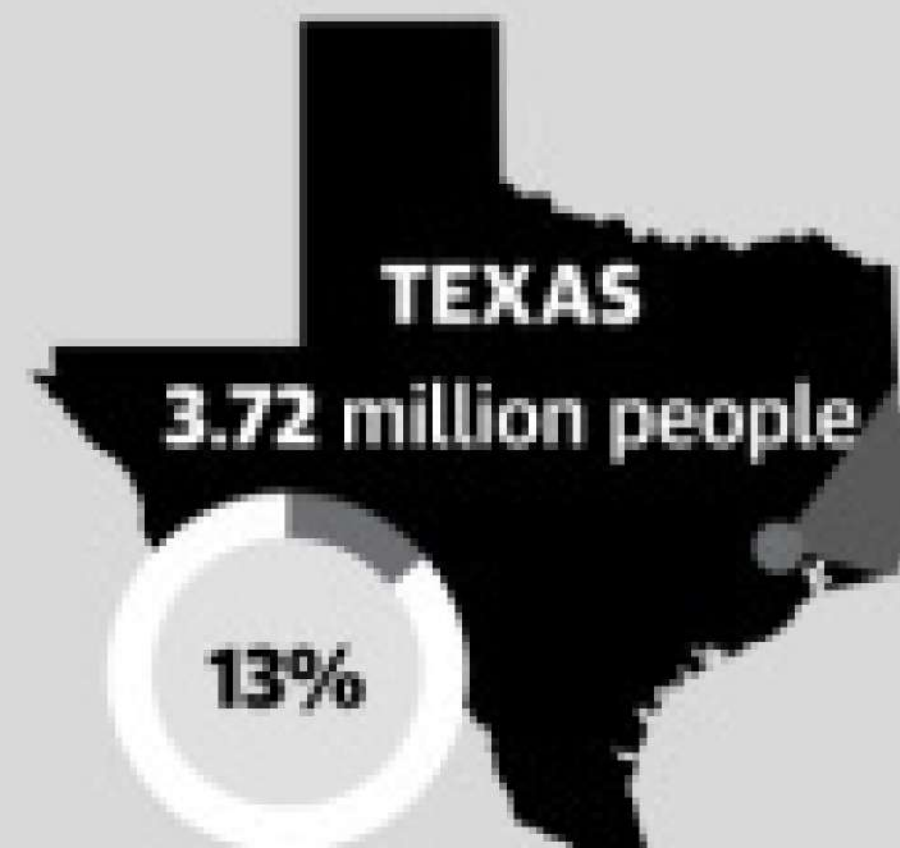
HUNGRY FOR HELP



In 2020, Fort Bend County had about 80,400 people who were considered food insecure, while Harris County had 1.04 million, per the National Food Security Survey. Local food bank officials said the pandemic has further exacerbated the issue.

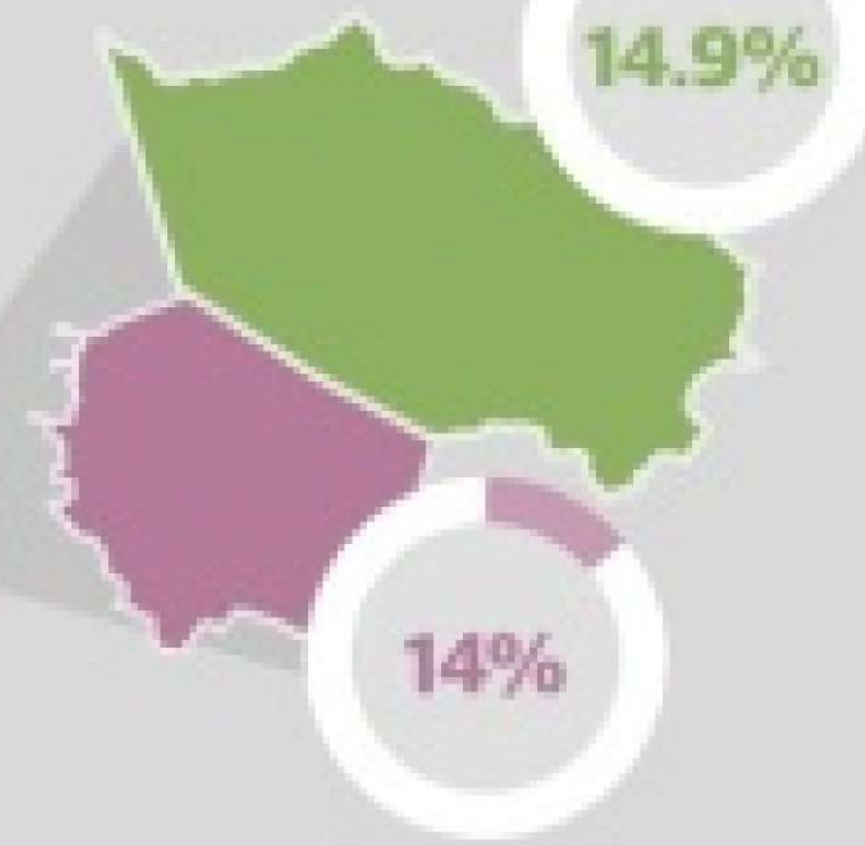
Food insecurity is defined as a lack of consistent access to enough food for an active, healthy life.

FOOD INSECURITY RATE IN 2020



TEXAS
3.72 million people

13%



14.9%

**HARRIS
COUNTY**

**1.04M
people**

**FORT BEND
COUNTY**

**80,400
people**

14%





Economic Hardships

Supply chain disruptions resulted in job losses and reduced income opportunities, hitting underserved populations especially hard.

Many in these communities rely on hourly wage jobs or gig work, which were more precarious during disruptions and lockdowns.

Business closures and layoffs during the pandemic left many in Fifth Ward without stable incomes, making it difficult to meet basic needs.

Fifth Ward

Many residents lost their jobs. Our income dropped dramatically. Luckily, the stimulus check from the government was there to help us out. However, this was not the case for some of my neighbors, friends and many others in the community. For them, the check was not enough to pull them out of the dreadful financial situation the pandemic introduced into their lives. This is when Fifth Ward saw its biggest challenges, as residents struggled meeting basic needs like rent and food. Out of desperation, business owners asked for loans due to a huge drop in sales. So many businesses were in an unsustainable situation and were forced to file for bankruptcy. Those who could still work took on more hours, just so they could have enough to help themselves and their families



****Healthcare Inequities****

Black Texans already face health care disparities. The coronavirus made it worse.

When the outbreak began, testing posed the most immediate challenge to states, as a shortage of supplies, testing kits and processing backlogs created capacity problems.

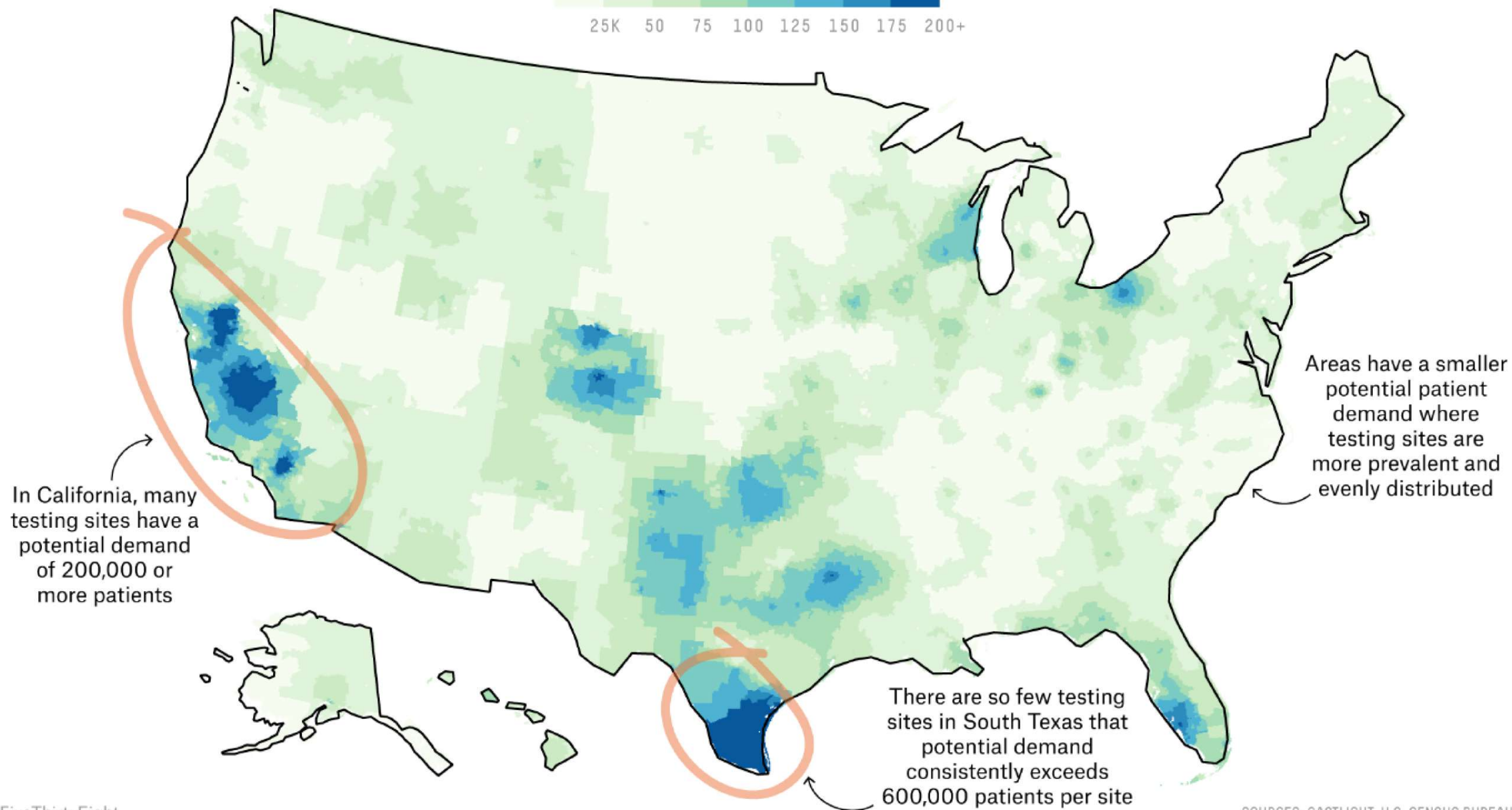
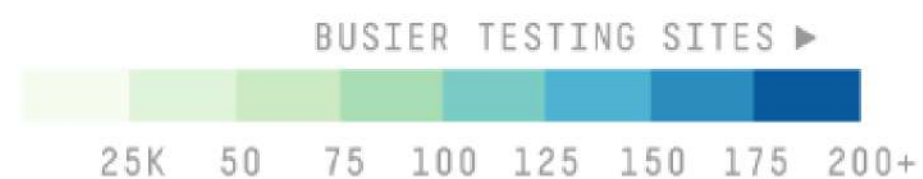
Access to healthcare services is already a challenge for underserved communities. Supply chain disruptions strained healthcare systems by limiting the availability of medical supplies, including ventilators, masks, and testing kits. This can lead to unequal access to healthcare and exacerbate health disparities.

In Texas, community activists and lawmakers are pushing for greater transparency on racial data. State Sen. Borris Miles, D-Houston, wrote a letter to Gov. Greg Abbott asking for increased testing in black communities in his district.

State Rep. Shawn Thierry, D-Houston, sent a letter to Abbott requesting the appointment of an emergency COVID-19 racial disparities task force.

Demand at COVID-19 testing sites depends on the community you live in

Census block group by average potential patient demand at nearby testing sites





****Education Disruptions****

Underserved students often lack access to digital devices and reliable internet connections for remote learning.

Supply chain disruptions in the production of educational technology and resources widened the education gap for these students, leaving them further behind their peers.

Supply chain disruptions created challenges for schools, including the availability of educational supplies, course materials, and equipment. These disruptions increased costs and limited the number of products and supplies reaching schools, especially in rural and high-poverty communities.

Parents may also see "**shrinkflation**", where they receive less of the school supplies they have purchased in the past at the same cost they paid last year.

Nutrition at school was impacted. District leaders and school board members can support food service programs by working with food service directors and increasing their involvement in the supply chain process to assist less-resourced schools.

The COVID-19 pandemic has highlighted the digital divide in Houston's Fifth Ward. In communities like the Fifth Ward, owning a device with internet access can be a challenge. To help bridge the digital divide, the **Harris County Public Library offered free Chromebooks and hotspots to Fifth Ward residents.**

NOTICE OF EVICTIION

Court Case No. 602-14

Address 100 WEST STREET, PINE

A Court Order has been issued requiring that all persons be removed from these premises. State Statutes direct that this final 24-hour notice of eviction be posted. If these premises are not vacated, the Court Services Bureau of North County Police Department is required to remove all persons from the premises.

Signed [Signature] I.D.# 9867 Date 7/27/21

NORTH COUNTY SHERIFF'S OFFICE
SHERIFF SERVICES BUREAU
(305) 555-0100

Housing Instability

Natural disasters during the pandemic worsened the housing instability for underserved populations like Fifth Ward.

Supply chain disruptions in the construction industry delayed repairs and rebuilding efforts, leaving vulnerable communities like Fifth Ward without safe and stable housing after Winter Storm Uri (Power Grid Outage).

Texas has one of the largest gaps in the nation between the number of households considered extremely low income and the number of available affordable homes. The state has a shortage of 864,338 affordable and available units for households living at or below 50% AMI.

The shortage of affordable and available rental homes for very low-income renters worsened by more than 164,591 units, or 24%, between 2019 and 2021.

Texas home prices have steadily increased due to rising housing demand and pandemic-related supply shortages.



****Transportation Challenges****

Limited access to transportation options made it difficult for underserved communities to access goods and services. Supply chain disruptions can, will, and did affect public transportation and the availability of affordable vehicles, making it even more challenging for residents to meet their daily needs.

Transportation issues affected a person's access to health care services. These issues resulted in missed or delayed health care appointments, increased health expenditures and overall poorer health outcomes.

Families could not obtain medical care due to transportation issues. Transportation issues in Fifth Ward include:

- **lack of vehicle access,**
- **inadequate infrastructure,**
- **long distances and**
- **lengthy times to reach needed services,**
- **transportation costs and**
- **adverse policies that affect travel**

Transportation also can be a vehicle for wellness. Developing affordable and appropriate transportation options, walkable communities, bike lanes, bike-share programs and other healthy transit options can help boost health.

****Psychological Stress****

Living in a state of constant vulnerability due to supply chain disruptions and their associated challenges can take a toll on the mental health of underserved populations. Anxiety and stress levels can rise, further compounding the difficulties they face.

While exacerbated by COVID-19, the current crisis reflects a longer standing issue in our mental health system.

Researchers, policymakers, insurance companies, service providers and families, see the lack of a coherent path from innovation to delivery in mental health services.

To use a metaphor from the manufacturing world, the mental health system lacks a coherent supply chain.

Until mental health policymaking solves its supply chain problem with fixes at each link, our children will continue to suffer.

****Psychological Stress****

Living in a state of constant vulnerability due to supply chain disruptions and their associated challenges can take a toll on the mental health of underserved populations. Anxiety and stress levels can rise, further compounding the difficulties they face.

The existing landscape of behavioral health has been further exacerbated by challenges across social, economic, and health care systems that should be addressed. These challenges include:

Fragmented, uncoordinated, inadequate, or underfunded health care and social service systems that make it difficult to fully address physical and behavioral health.

Reimbursement challenges as the landscape shifts to accommodate surging demand for virtual care and a growing need to show efficacy, quality, and value to regulators.

Limited number of behavioral health professionals, which constrains capacity to meet increasing demand.

Pervasive stigmas that keep behavioral health and related treatments from being normalized and universally encouraged.

Failure prioritize the drivers of health (e.g., healthy food, safe housing, good-paying jobs) to devise integrated approaches to behavioral health.

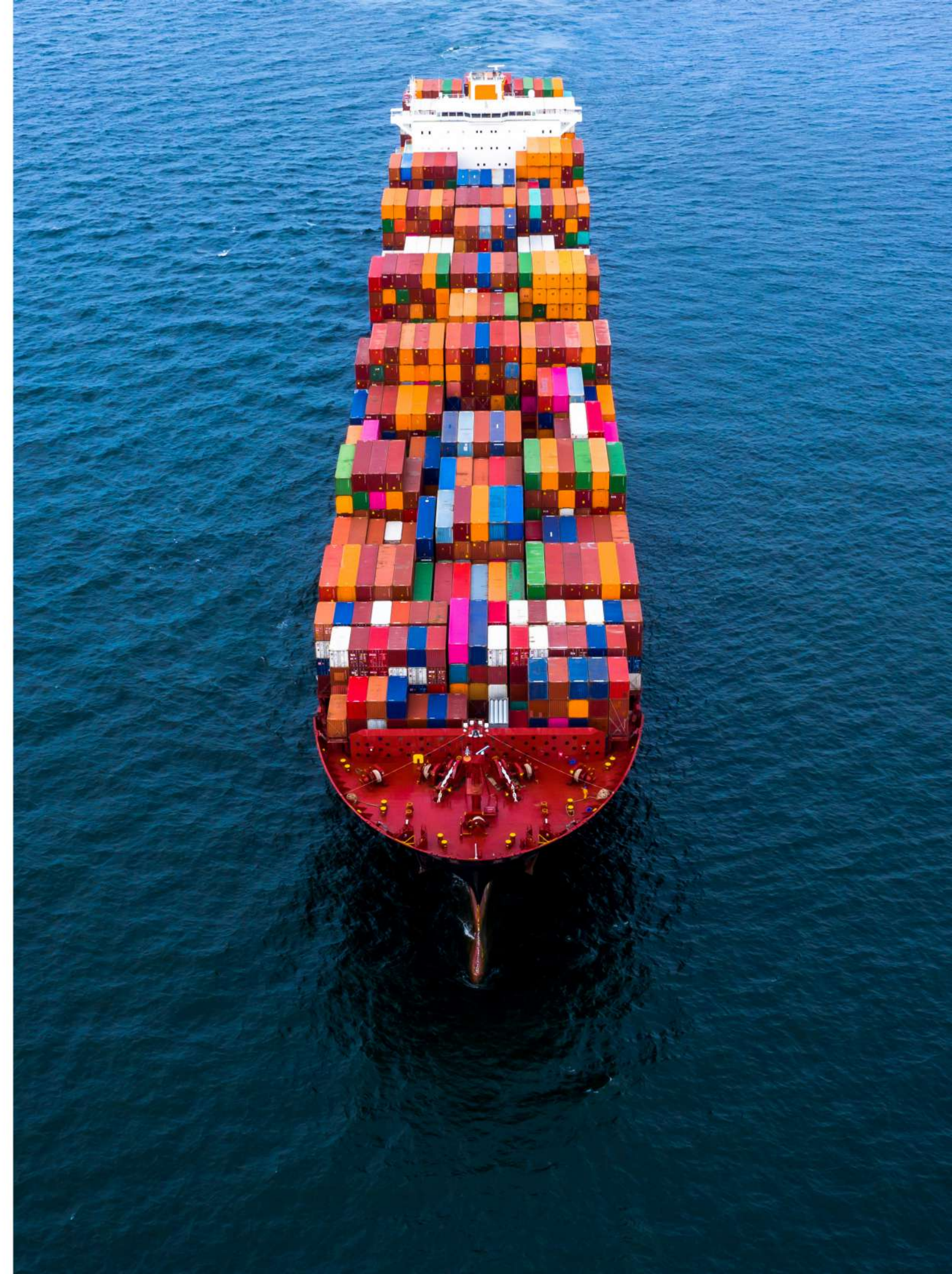
A digital divide that makes it difficult for low-income populations to access technology (e.g., internet and connected devices).

Regulatory barriers that keep clinicians from providing care across state lines.

Racial and cultural disparities in education, access, utilization, and cultural confidence in behavioral health care.

Supply Chain Disruptions: Impacts on Vulnerable Communities – Houston TX

- The pervasive effects of supply chain disruptions, underscored by the COVID-19 pandemic, climate change, and critical shortages of essential commodities such as food, infant formula, prescription drugs, and medical devices, reverberated through all communities in Houston.
- However, widespread evidence exists that these impacts were and are not evenly distributed.
- They are disproportionately intense and persistent among vulnerable populations.



In summary, supply chain disruptions exacerbate the vulnerabilities of underserved populations in Houston, Texas, by:

- 1) limiting access to essentials,
- 2) causing economic hardship,
- 3) exacerbating healthcare disparities,
- 4) disrupting education,
- 5) leading to housing instability,
- 6) creating transportation challenges,
- 7) and affecting mental health.

These communities often have fewer resources to cope with and recover from such disruptions, making it crucial to address their specific needs during times of crisis.





WELCOME TO

Fifth Ward

1865

By their fruit ye will recognize them

*The fruit of the righteous
is a tree of life*

*They will still bear fruit in old age
they will stay fresh and green*

*A good tree cannot bear bad fruit,
and a bad tree cannot bear good fruit.*

National Academies Workshop

Supply Chain Disruptions & Community Voices

Presented by: Martine Hippolyte
Director of Community
Engagement





FRESHFARM

nourishing our food future

Mission:

FRESHFARM builds a more equitable, vibrant, sustainable, and resilient food system in the Mid-Atlantic region by producing innovative solutions to solve critical problems in partnership with local communities and organizations. We create food access, economic development, and thriving communities through hands-on education, farmers markets, and food distribution programs.

FRESHFARM has two primary goals:

1. Promote a thriving food economy that prioritizes producers, consumers, and the environment.
2. Give all people and communities agency and knowledge to access nutritious, local food.



FRESHFARM
nourishing our food future

FOOD ECONOMY



Farmers Markets + Access

We have nearly 30 markets in DC, VA, and Montgomery County, MD. Our FreshMatch program provides a dollar-for-dollar match when use their federal nutrition benefits, like SNAP EBT, WIC, and Senior Food Benefits, to shop at market.

FOOD EDUCATION



FoodPrints

Comprehensive food education for students through growing, cooking, eating and support for academic learning.

Partner with 19 DCPS schools

FOOD RESILIENCE



Pop Up Food Hub

This program fosters economic opportunities for local growers, improves food access for those in need, and strengthens our regional food system by aggregating produce directly from farmers to communities.

Our Communities

Local Grower Community

2022 Farmers & Producers self-identification	
First -generation farmers	30%
BIPOC	29%
Immigrant and/or refugee	20%
Veteran	6%
LGBTQIA+	5%



Local Grower Community

PUFH Network	US Agriculture
Farms < 100 acres 69%	Average farm size is 444 acres
First -generation farmers 58%	Beginning farmers 27%
BIPOC-owned farmers 58%	BIPOC-owned farmers 5%





FRESHFARM

nourishing our food future

District of Columbia Community



- Approximately 21 year difference in life expectancy between residents in ward 78 and other wards
- Four DC neighborhoods have a total of 4050% of food retailers/full service grocery stores in the city where some neighborhoods have no full service grocery stores at all
- 36,000 households considered food insecure
- The highest median income in Ward 3 is \$200k vs in Ward 8 at \$25k
- In Ward 7 and Ward 8, average of 59% of a person's income spent on housing

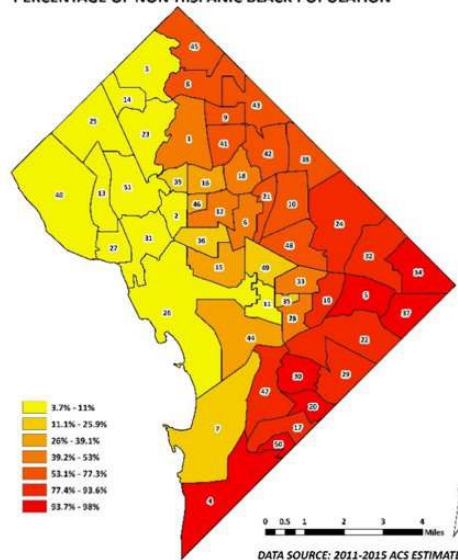


FRESHFARM
nourishing our food future

District of Columbia Community



DEMOGRAPHICS RACE AND ETHNICITY PERCENTAGE OF NON-HISPANIC BLACK POPULATION



Supply Chain Disruption Impact



Impact on Vulnerable Communities

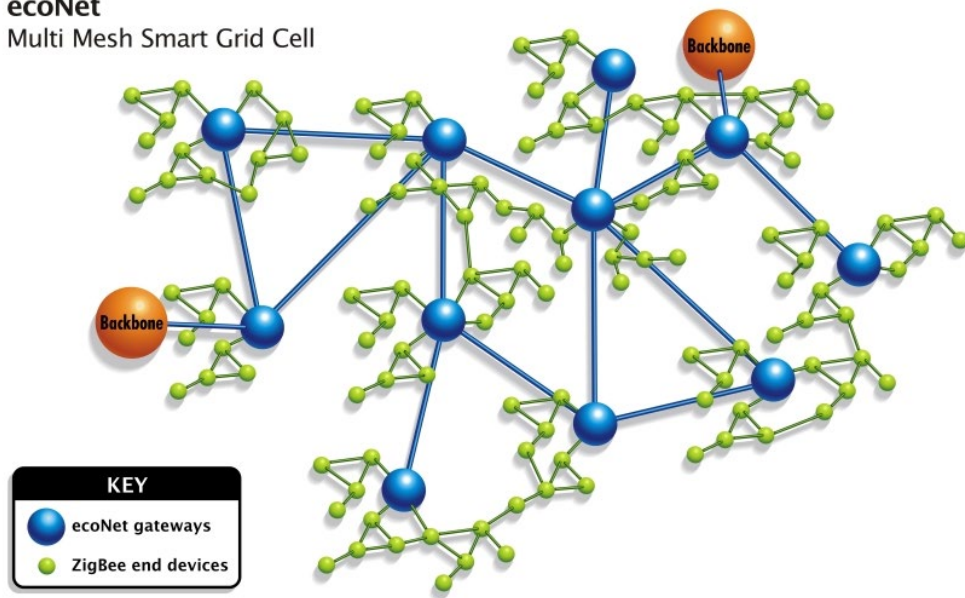
Supply chain disruptions disproportionately affect marginalized and historically excluded communities. These disruptions impact vulnerable communities directly and indirectly and cause:

- **Financial strain**
- **Confusion**
- **Mistrust**
- **Fear**
- **Burden on time**
- **Lack of engagement**

The Work

Pop-Up Food Hub Model

ecoNet
Multi Mesh Smart Grid Cell



Inspired in a Mesh Grid model, we see farmers markets as both, distributors and aggregators of food. This vision allows us to run a low-infrastructure, decentralized food distribution program that keep fresh local food affordable, while creating new revenue for family farms.



Engagement x Farmers Markets

- Providing market programming that supports the destigmatizing of federal nutrition benefits
- Providing education opportunities to support the maximizing of federal nutrition benefits
- Creating and facilitating a Food Navigator Training in partnership with the Department of Health to over 30 market managers that support those who use federal nutrition benefits



Education x Pop Up Food Hub

- Creating innovative tools to support those receiving childcare shares and family shares
 - **Generating a QR code** that leads families to information about produce identification, storage tips and recipe suggestions
 - **Embarking on video production project** to help families and early childcare staff navigate frequently asked about produce
 - **Providing trainings and technical assistance** to early childcare staff online and in-person





Peer Engagement & Education

- Recruiting, training and empowering Community Food Educators
- Learning from those with lived expertise to maximize impact
- Providing equitable continued learning opportunities for community members that generate excitement about growing, procuring and utilizing local produce





Early Education x FoodPrints

- FoodPrints provides **experiential food education** that builds positive relationships with fresh food to help sustain minds, bodies, and the world around us.
- We believe that sustained food education has the power to **improve long -term health, academic and environmental outcomes** .
- FoodPrints teachers are **embedded in public elementary schools** , providing accessible, direct programming to students, school staff and families.



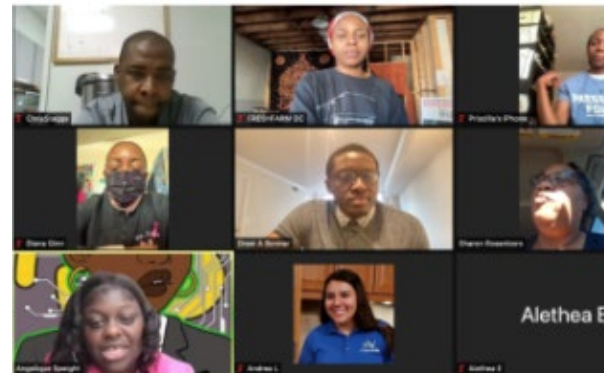
Curating Community Voice

Those closest to the problem are closest to the solution.



Coalition Building

- Intentional communication and meeting facilitation to build trust and rapport with community members
- Empowering, equipping and educating community members in human-centered meeting spaces
- Community voices influence and inform direct/indirect education opportunities and tools to support the procurement and utilization of fresh produce





To learn more about FRESHFARM go to:
freshfarm.org

Contact Martine Hippolyte at martine@ffm.org

National Academies Workshop - Supply Chain Impacts on Vulnerable Communities

By Chamber of Commerce Hawaii

Background

- ▶ Most isolated Population: 1.46 million (2020)
- ▶ Closest landmass is California, which is about 2,400 miles away
- ▶ 6 Major Islands: Oahu, Maui, Hawaii Island, Kauai, Molokai, and Lanai
- ▶ 10 Commercial Harbors
- ▶ 85-90% of food and fuel are imported
- ▶ Economic Drivers: Tourism, Military
- ▶ #1 Highest Cost of Living
- ▶ GDP: \$75.3m (2022)

Shipping

- ▶ Most shipping needs to be done on a just-in-time basis.
- ▶ Ocean transit time from the West Coast is about four days.
- ▶ Given the lack of warehouse space, businesses ordering goods to fulfill inventory needs typically factor in 8 to 10 days transit time from their source to their facility, so weather or mechanical problems can cause disruptions.
- ▶ Upon arrival on Oahu, shipments to neighbor islands adds another day or two of travel time.
- ▶ Hawaii's topography can also present logistical challenges.

How do supply chain disruptions impact local communities?

1. Increased Costs
2. Food Insecurity
3. Economic Impact
4. Tourism Industry
5. Infrastructure Challenges
6. Healthcare Access
7. Energy Supply

What are some recent examples of community disruptions?

1. Natural Disasters & Extreme Weather Events
2. Pandemics
3. Shipping and Transportation Issues
4. Fuel Supply Issues
5. Trade Disputes

Who will speak for a diverse vulnerable community's supply chain?

- ▶ Community-Based Organizations
- ▶ Government Agencies
- ▶ Elected Officials
- ▶ Chambers of Commerce & Business Associations
- ▶ Partnerships and Collaborations
- ▶ Community Members

Mitigation

- ▶ To mitigate the impacts of supply chain disruptions, Hawaii has been working on strategies to increase local food production, promote renewable energy sources, and diversify its economy.

Mahalo!

Contact:

Sherry Menor-McNamara, President and CEO of Chamber of Commerce
Hawaii

Smenor-mcnamara@cochawaii.org, (808) 380-2609

NATIONAL
ACADEMIES

Sciences
Engineering
Medicine

THANK YOU FOR
PARTICIPATING

Contact us at resilience@nas.edu

SEPTEMBER 12, 2023