



AFTER COVID:
FOOD INSECURITY, CLIMATE CHANGE, NEW CHALLENGES

A FOCUS ON LOCAL FOOD ACCESS & SUSTAINABILITY

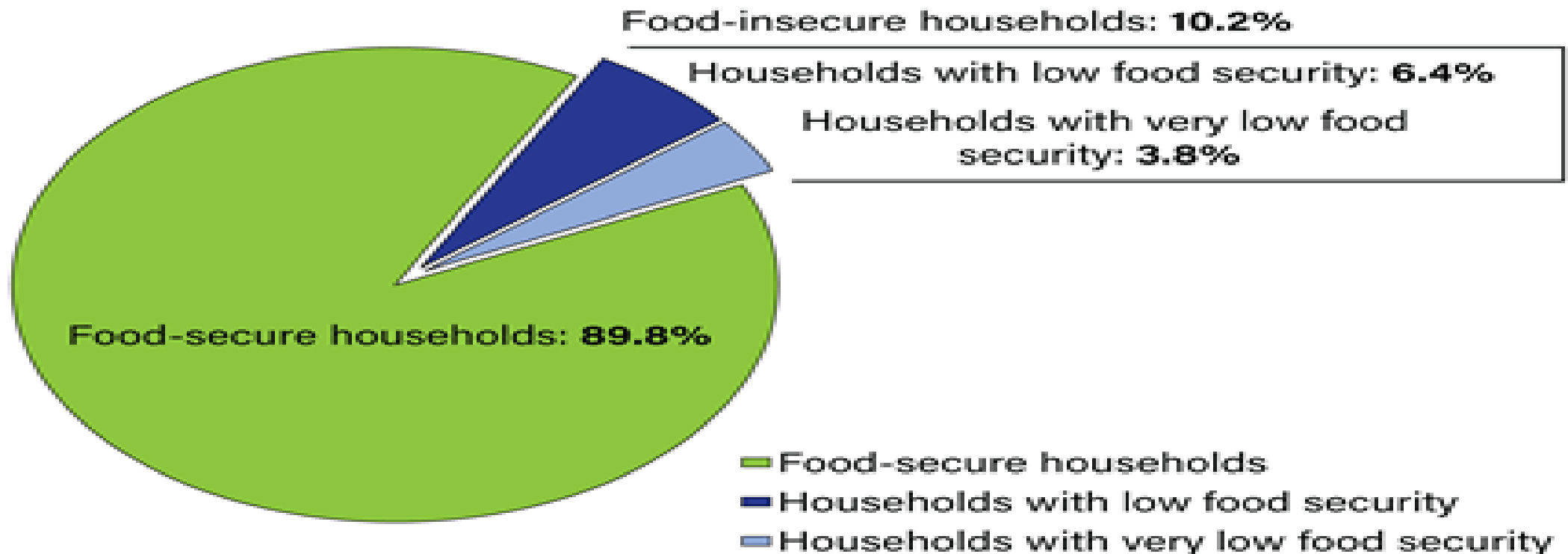
BEYOND GDP. -- OCTOBER 12, 2022

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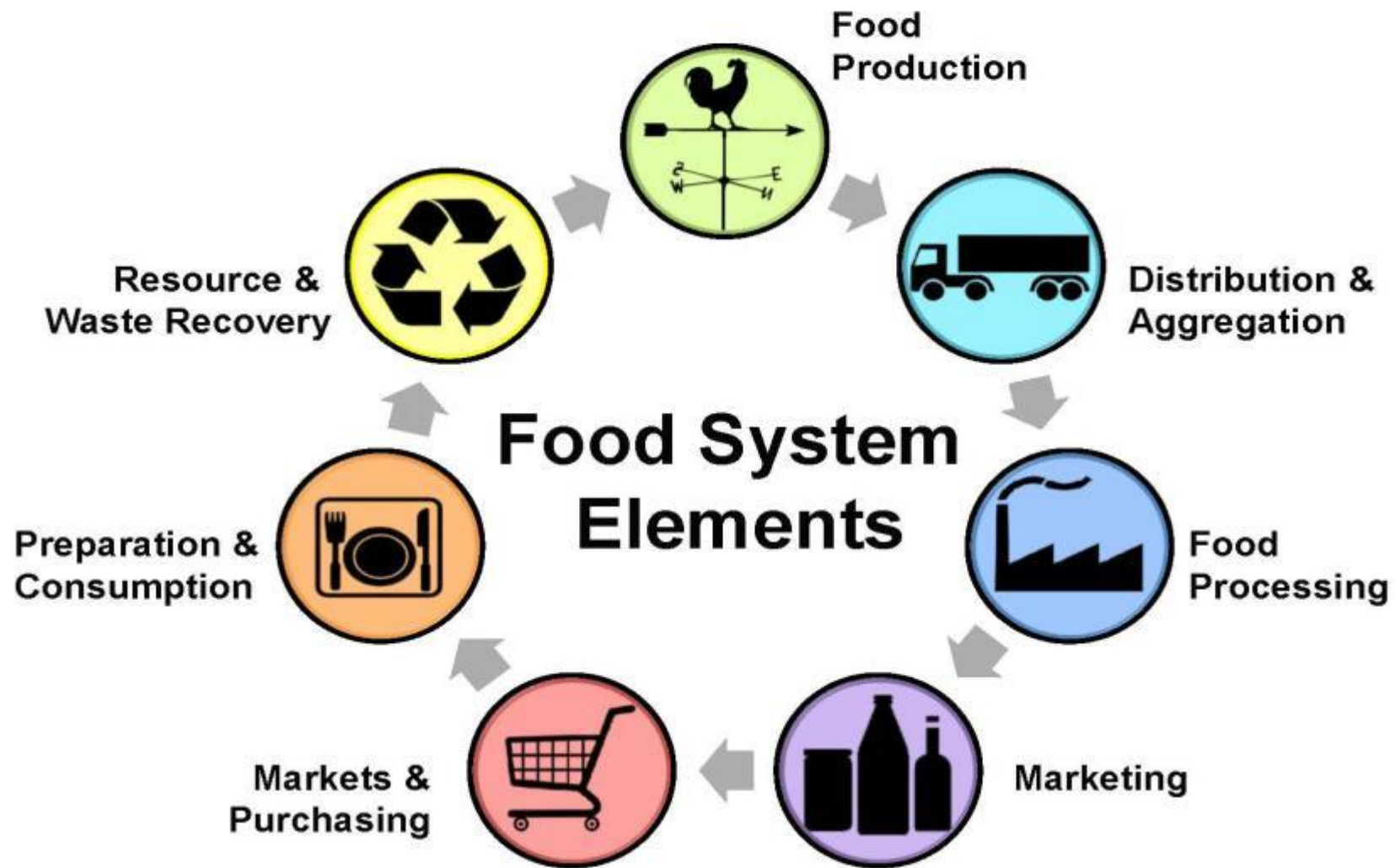
GRADUATE SCHOOL OF SOCIAL WORK, UNIVERSITY OF DENVER

FOOD INSECURITY IS A HOUSEHOLD MEASURE

U.S. households by food security status, 2021



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2021 Current Population Survey Food Security Supplement.



Adapted by Christy Shi, Center for Environmental Farming Systems.

From: Wilkins, J. and Eames-Sheavly, M. Discovering the Food System; An experiential learning program for young and inquiring minds. Cornell University, Departments of Nutritional Science and Horticulture. <http://www.discoverfoodsys.cornell.edu/>

NEFF'S KEY FOOD SYSTEM CHALLENGES [2015]

PUBLIC HEALTH CHALLENGES

- **FOOD INSECURITY**
- **FOOD SAFETY GAPS**
- **LACK OF HEALTHY FOOD ACCESS, AFFORDABILITY**
- **OBESITY & DIET-RELATED DISEASE**
- **ANTIBIOTIC RESISANCE**
- **CHEMICAL CONTAMINANTS**
- **LACK OF WORKER PROTECTION(S)**
- **SOIL, WATER, AIR CONTAMINATION**
- **VULNERABILITY TO TERRORISM**

ENVIRONMENTAL (& FUTURE FOOD SECURITY) CHALLENGES

- **CLIMATE CHANGE**
- **SOIL DEPLETION**
- **WATER SCARCITY**
- **PEAK OIL & PEAK PHOSPHOROUS**
- **BIODIVERSITY LOSS**
- **FARMLAND LOSS**
- **FISHERIES COLLAPSE**

ADDITIONAL FOOD SECURITY CHALLENGES

- **LOSS OF SMALL & MID-SIZED FARMS**
- **AGING FARMERS**
- **LACK/LOSS FOOD RESERVES**
- **LACK/NO PLANNING FOR FOOD SECURITY CRISES**

NEFF'S KEY FOOD SYSTEM CHALLENGES [2015] CONTINUED

SOCIAL CHALLENGES

- **CORPORATE/MONOPOLY CONCENTRATION & CONTROL**
- **HIGH, VOLATILE FOOD PRICES**
- **CHALLENGING LIVELIHOODS OF FARMS & WORKERS IN FOOD SYSTEM**
- **POLICY GAPS FOR GENETICALLY MODIFIED ORGANISMS**
- **LOSS OF RURAL COMMUNITY**

WHAT'S MISSING?

WHAT FACTORS WERE HEIGHTENED WITH COVID & GROWING CLIMATE CHANGE?

FOOD INSECURITY WAS HIGHER THAN 10.2%* FOR THE FOLLOWING:

(*10.2% = NATIONAL AVERAGE FOR FOOD INSECURITY)

- All households with children (12.5%).
- Households with children under age 6 (12.9%).
- Households with children headed by a single woman (24.3%) or a single man (16.2%).
- Women living alone (13.2%) and men living alone (12.3%).
- Households with Black, non-Hispanic (19.8%) and Hispanic reference** persons (16.2%) [**a household reference person is an adult household member in whose name the housing unit is owned or rented].
- Households with incomes below 185% of the poverty threshold (26.5%) [the Federal poverty level was \$27,479 for a family of four in 2021].

Table 1 Adverse impacts of the COVID on local food systems' actors and expected direct effects on their food security
From: [Resilience of local food systems & links to food security – Review of important concepts in COVID-19 & other shocks](#)

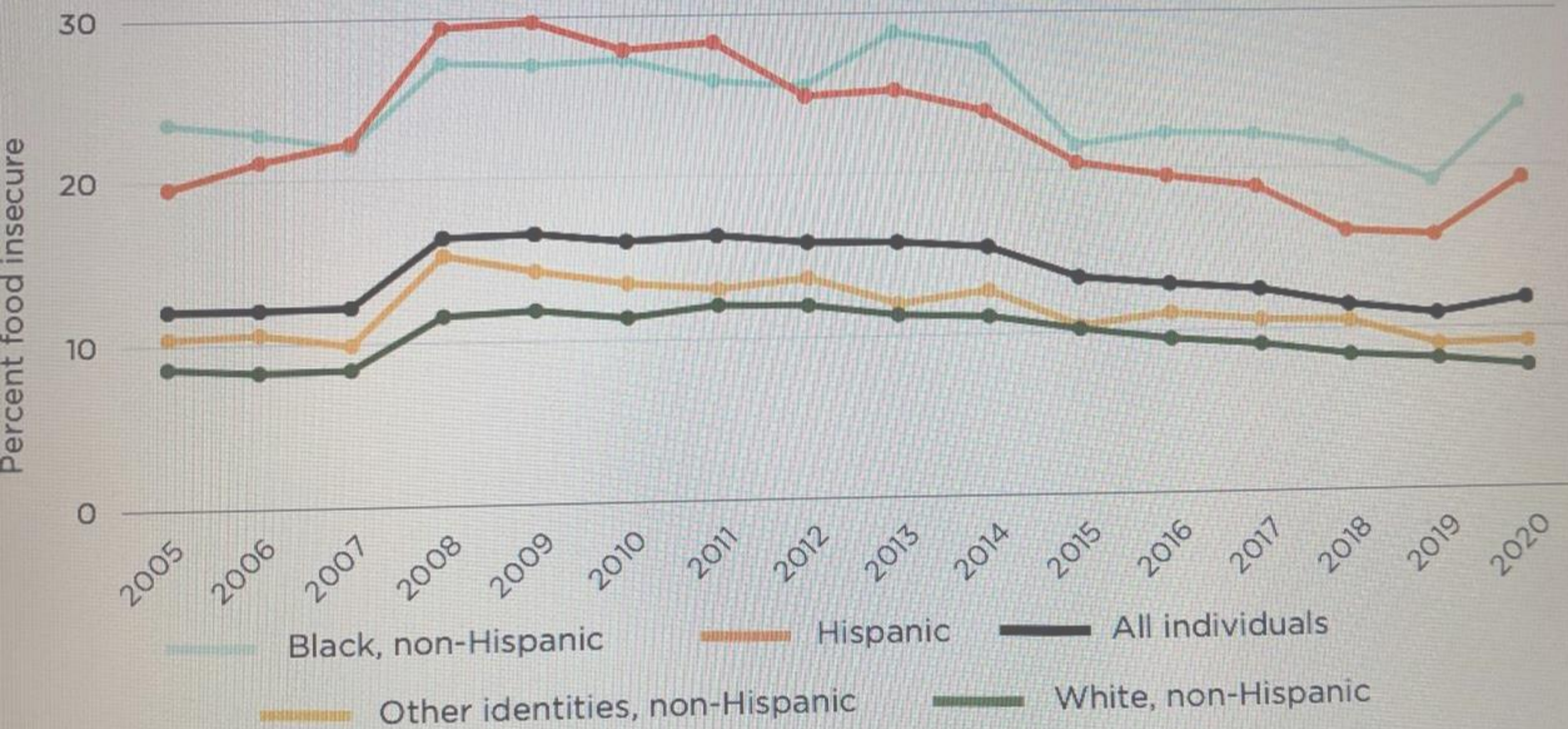
Actors	Adverse impacts reported	Expected <i>direct</i> effect on actors' food security	Subsequent <i>indirect</i> effect on other actors' food security
Producers (e.g. family-based farming/dairy enterprises)	<ul style="list-style-type: none"> ▪ Disruption in input supply chain (e.g. fertilizer) and/or subsequent increase in input prices ▪ Reduction in demand of certain products (excess supply) leading to drop in farm-gate product prices ▪ Reduction in labour/workers availability (due to mobility restriction, increase in public transport costs, or fear of exposure to virus) 	<ul style="list-style-type: none"> ▪ Drop in profitability affecting producers' income, purchasing power and access to traded food 	<ul style="list-style-type: none"> ▪ Reduced food availability for retailers, vendors and eventually consumers; disruption or reduced stability of food availability
Transporters (small to medium-sized enterprises)	<ul style="list-style-type: none"> ▪ Transport affected by local or national mobility restrictions and lockdowns (e.g. time when they are allowed to travel on road) ▪ Increased risk of exposure to the virus 	<ul style="list-style-type: none"> ▪ Drop in profitability affecting transporters' income, purchasing power and access to traded food 	<ul style="list-style-type: none"> ▪ Reduced food availability and food access for retailers, vendors and consumers; disruption or reduced stability of availability and access
Processors (formal or informal micro, small or medium-sized enterprises)	<ul style="list-style-type: none"> ▪ Reduction in demand of certain items (excess supply) leading to decline in business profitability ▪ Shift in food suppliers (with potential drop in quality / stability of food traded) 	<ul style="list-style-type: none"> ▪ Drop in profitability affecting processors' income, purchasing power and access to traded food 	<ul style="list-style-type: none"> ▪ Increase in risk of food safety issues for consumers
Retailers (formal or informal micro to small enterprises)	<ul style="list-style-type: none"> ▪ Substantial increase in input costs leading to decline in business profitability ▪ in food suppliers (with potential drop 	<ul style="list-style-type: none"> ▪ Drop in business, reduced income affecting retailers' purchasing power and access to traded food 	<ul style="list-style-type: none"> ▪ Disruption of food supply chain ▪ Increase in risk of food safety issues for consumers

Table 1 Adverse impacts of the COVID on local food systems' actors and expected direct effects on their food security (cont'd)

From: [Resilience of local food systems & links to food security – Review of important concepts in COVID-19 & other shocks](#)

Actors	Adverse impacts reported	Expected <i>direct</i> effect on actors' food security	Subsequent <i>indirect</i> effect on other actors' food security
<p>Vendors (e.g. street vendors, workers in small formal or informal food outlets and shops)</p>	<ul style="list-style-type: none"> ▪ Temporary loss of job or income due to lockdown and mobility restriction or (partial or total) closure of open air market ▪ Policy violence against informal street vendors ▪ If still operating, increased risk of exposure to the virus ▪ Decline in demand (due to drop in consumers' purchasing power (see below) leading to fall in business profitability 	<ul style="list-style-type: none"> ▪ Drop in business, reduced income affecting vendors' purchasing power and access to traded food 	<ul style="list-style-type: none"> ▪ Disruption of food supply chain affecting food availability ▪ Shift of consumers to more expensive food outlet (e.g. supermarkets)
<p>Consumers including member of the other groups of actors of the food system (who are also consumers), and non-food system actors.</p>	<ul style="list-style-type: none"> ▪ Temporary loss of job and income due to lockdown and mobility restrictions ▪ Increased in costs related to food purchase (cost of transportation, cost of delivery, price of food) ▪ Disruption in access to food outlets of choice (lockdown affecting consumers mobility and access to food supply outlets) ▪ Disruption in food supply chain ▪ Loss of access to cheap, close-by, convenient food supply outlets (e.g. 	<ul style="list-style-type: none"> ▪ Reduced income/wages affecting consumers' purchasing power and subsequently access to food, with possible degradation in food quality (e.g. shift to cheaper, less nutritious food), or reduction in food purchase ▪ Reduction in stability of access to food ▪ Increased risk of exposure to unsafe food ▪ Forced shift to more expensive food outlets (e.g. supermarkets) leading to further fall in purchasing power 	<ul style="list-style-type: none"> ▪ Reduced demand for certain food items leading to reduction in income for vendors, retailers, and eventually producers

Figure 1. Food Insecurity Among Individuals by Race/Ethnicity, 2005-2020



Source: USDA Economic Research Service

Note: the category of "Other identities, non-Hispanic" includes individuals who identify as Native American, Asian

Table 3. Food insecurity among Asian-American individuals by Asian group (2016-2020)

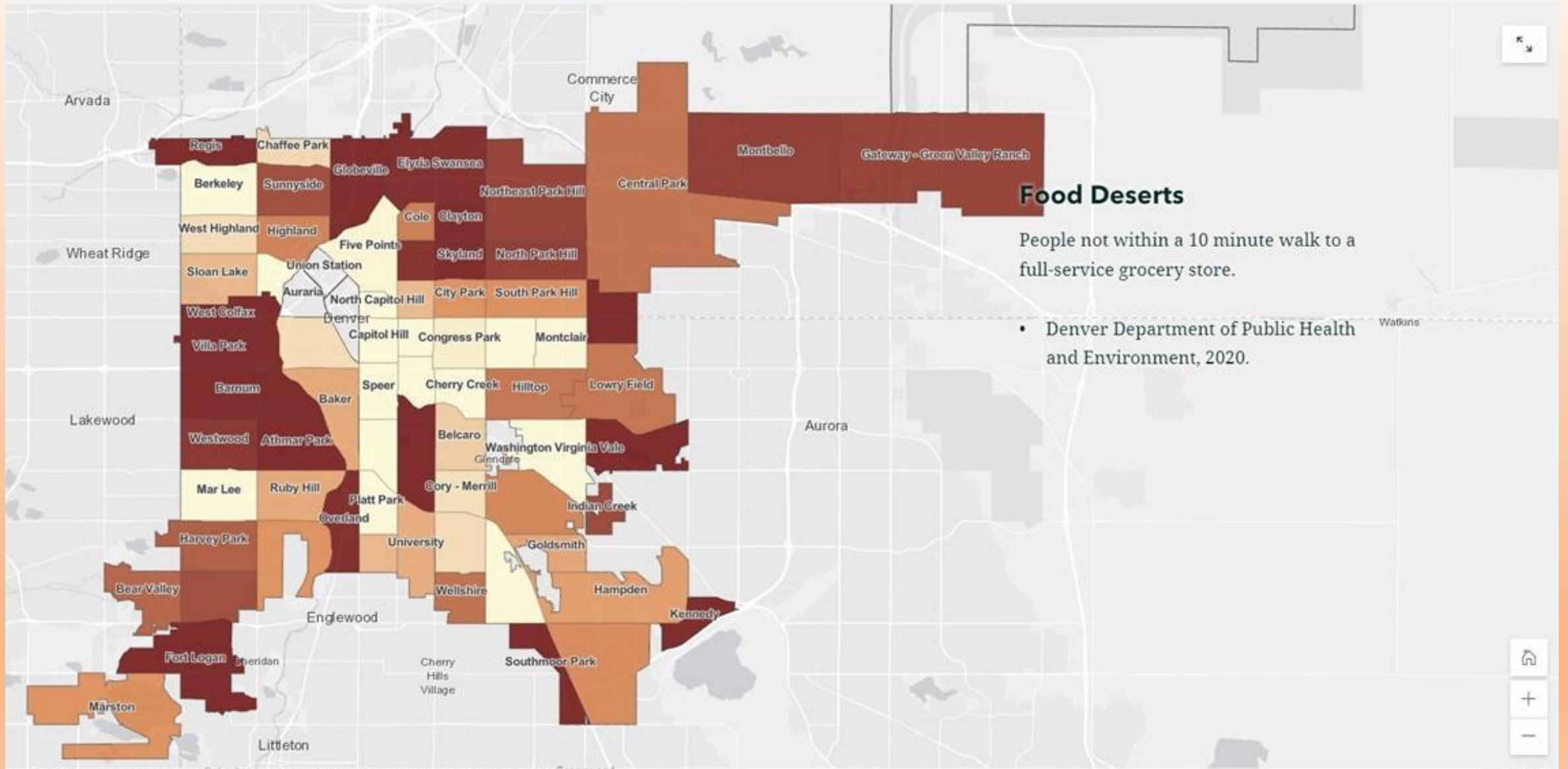
Asian Group	Food Insecurity
Asian Indian	3.6%
Chinese	2.3%
Filipino	8.9%
Japanese	3.5%
Korean	4.8%
Vietnamese	7.4%
Reporting other Asian identity	12.6%

Note: Individuals who identify as Asian (only) are asked to further self-identify from among the options shown in this table.

Source: Calculations by Dr. Craig Gundersen for Feeding America, using a five-year average (2016-2020) from the Current

HUNGER FREE STATISTICS FOR COLORADO [APRIL 2021]

- **1 in 5 Colorado households (21%)** consider hunger a top concern;
- **1 in 3 (33%) Coloradans are food insecure**, meaning they lack reliable access to nutritious food, with people of color and households with children facing even higher levels of hunger;
- **43% non-white and Latinx individuals** are now struggling to put food on the table, compared to 29% of white Coloradans;
- **Almost half of households with children (44%)** are struggling to have regular access to nutritious food;
- **1 in 5 adults in Colorado (20%)** reported having to cut back or skip meals because there wasn't enough money to buy food. Among non-white or Latinx households that rose to 26%;
- **1 in 6 children (16%)** are not getting adequate nutrition because there is not enough money for food;
- **45% of Coloradans** identified the high cost of healthy food as a problem for their household



Food Deserts

People not within a 10 minute walk to a full-service grocery store.

- Denver Department of Public Health and Environment, 2020.

DATA POINTS FOR THE CITY & COUNTY OF DENVER [HFDK, 2020]

HEALTH EQUITY

AT RISK RANK

North, Far Northeast, South, and Southwest areas of Denver have higher At-Risk Ranks¹

CHILD WELL-BEING INDEX

Obstacles faced by children vary greatly between Denver neighborhoods^{3,4}

COVID-19 CASES

Black, Hispanic/Latinx, and Native Hawaiian or Pacific Islanders have higher percentage of COVID-19 positive cases compared to White or Asian Coloradans⁵

MINORITY POPULATIONS

At-risk neighborhoods correlate with higher minority populations^{3,6}

CHILDREN IN IMMIGRANT FAMILIES

37% of Denver's children in 2017, at risk neighborhoods correlate with higher percentages of children in immigrant families^{3,4}

CHILDREN OF COLOR

At-risk neighborhoods correlate with high percentages of children of color^{3,4}

OTHER LANGUAGE HOUSEHOLDS (BESIDES ENGLISH)

At-risk neighborhoods correlate with high percentages of Language Other Than English Spoken in Home^{3,4}

AGE UNDER 18

At-risk neighborhoods correlate with high percentages of people under the age of 18^{1,2}

SINGLE PARENT FAMILIES

At-risk neighborhoods have high percentages of single-parent families^{1,2}

LOCATIONS OF FOOD STORES, BY TYPE

At-risk areas, especially North Denver, have fewer full-service grocery stores¹²

LOCATIONS OF FOOD PANTRIES

Some neighborhoods with high At-Risk- Ranks lack food pantries within walking distance¹³

CASE STUDY: FOOD TO POWER, COLORADO SPRINGS

<https://static1.squarespace.com/static/5fc5cd5723a909340d35f06b/t/62b1db4c4baf93056700f87e/1655823182665/FTP+Annual+Report+2021-FINAL>

HISTORY: *Food to Power began in 2013 as Colorado Spring Food Rescue. Self-described as an “organism with a mission,”*

*they quickly moved from simply “rescuing food,” to wanting to transform the entire food system. “Our mission is to transform every aspect of our food system into co-powerment and equity. **From food, to power.”***

STRATEGIC GOALS (2022-2023):

Goal #1 Through & beyond the COVID19 pandemic, Food to Power will provide community-based food access, education and production programs for families, youth, and the general public.

Goal #2 Food to Power will have the human and financial resources necessary to fulfill its mission of cultivating a healthy, equitable food system in the greater Colorado Springs community.

Goal #3 Food to Power will open & begin operating programs at the Hillside Hub.

ACHIEVEMENTS

- ✓ They have opened Hillside Hub, operating classes, a pay-what-you-can grocery with no qualifying identification needed;
- ✓ At the Hillside Hub they are next door to a Black Church, involving elders in all their food-focused activities and a healing garden for the indigenous community involving medicinal herbs, and rituals;
- ✓ Over the last 7 years, F2P has built grassroots participatory relationships with > 40 partners, who helped redistribute over 6 million dollars worth of nutritious foods throughout the community;
- ✓ Their work has fed food insecure families AND reduced waste going into the landfills, thereby helping promote environmental justice WHILE FEEDING poor and working families with dignity and choice