



Addressing the Food Security Crisis in Washington

Discussion document

May 22, 2020



Executive summary

- Over the past four weeks, our team has worked to **build a perspective on the demand and supply for resources to support food insecurity in Washington state**
- The **landscape of food insecurity is rapidly shifting** as the COVID-19 crisis continues to impact people's livelihoods in Washington state and beyond
- **~2.2M individuals in WA may be food-insecure during the month of peak need in 2020**, driven by increases in unemployment and poverty:
 - Initial unemployment claims in Washington, as in other states, have risen to unprecedented levels, and may continue to shift up and down as businesses reopen in phases
 - The rate of poverty, although not yet measured directly, may also rise, as it has during economic downturns
- Accounting for supply-side funding, **the estimated gap which remains to fully address food insecurity could reach up to ~\$115M per month** during the peak months of the crisis
 - This estimate reflects data and assumptions about federal and state programs, as well as private assistance
 - Enhanced SNAP benefits (extension of 100% allotment to all beneficiaries) and greater cash donations to food banks account for the greatest share of supply change relative to pre-COVID-19 baseline
- Many **people who hold jobs that are vulnerable to disruption may be eligible for enhanced unemployment insurance benefits**, receiving an additional \$600 per week funded by Federal assistance. There are several considerations associated with this:
 - Depending on income bracket, this **benefit could more than replace lost wages for some people**, helping to offset the total number of individuals entering food insecurity
 - However, **not all people who become unemployed are likely to receive this benefit** – in past economic downturn situations, only 52-54% of unemployed people received unemployment insurance benefits
 - The **enhanced benefits are time-limited**, currently set to expire at the end of July 2020
- Consistent with previous versions of the model, the **gap between demand and supply may be greatest in August or December**, depending on the peak in unemployment claims and the timing of federal enhancements to unemployment insurance benefits
- **A visual reporting dashboard has been developed to display Census tract-level estimates** of potential increases in food insecurity and the associated funding gap to fully address the needs of food-insecure households
- There are a **range of mechanisms which could help to mitigate gaps and challenges**, some of which have already been implemented by Northwest Harvest, and many of which have been implemented by peers nationally. These include: enhancing supply of refrigerated storage capacity, providing cash transfers to people in need of assistance, expanding grocery and meal delivery using school buses and other innovative approaches, and converting restaurants and other underutilized food preparation spaces into community kitchens
- Our work over the past 4 weeks have highlighted that food insecurity was already a major issue facing many of WA's population, and the COVID-19 crisis will only intensify the magnitude of the problem. To resolve this will take a concerted joint effort across many stakeholders in the system, and its urgency and need is both critical and imminent

Our commitment

Why we were involved

Our Seattle office is committed to supporting social impact in our local community in a variety of ways. This has included:

- Working with local leaders to build a fact base around homelessness in King County
- Sharing insights with small business leaders about COVID-19 planning and response
- Partnering with local philanthropic efforts

In the context of the current crisis, we are passionate about supporting our community in ways that not only address the immediate challenges, but also build toward sustainable long-term impact

Our support on this project

Our team supported a critical need to rapidly build a perspective on supply and demand for resources to support food security in Washington

The engagement enabled us to build a greater understanding of the food security challenge as a whole, and the dire way in which COVID-19 is expected to exacerbate the situation

We are committed to continue to learn and share our perspective on the issue at hand, and be as helpful as possible beyond our formal engagement

Our joint team has been focused on developing three outputs



Food Security Model

Quantitative, Census tract-level model of current and future supply and demand for food assistance in Washington state to help understand the gap between the two



Food Security Dashboard

Graphical dashboard that visualizes model outputs at the statewide, county, and Census tract levels



Perspective on gaps and potential constraints

Narrative view on areas where existing resources and programs may not fully address community needs and opportunities to address gaps

Topics for today's discussion

▶ **Context for the food insecurity crisis in 2020**

▶ Factors used to estimate food insecurity

▶ Statewide perspective on food insecurity in Washington

▶ Census tract-level Food Security Dashboard

▶ Perspective on gaps and potential constraints in food supply

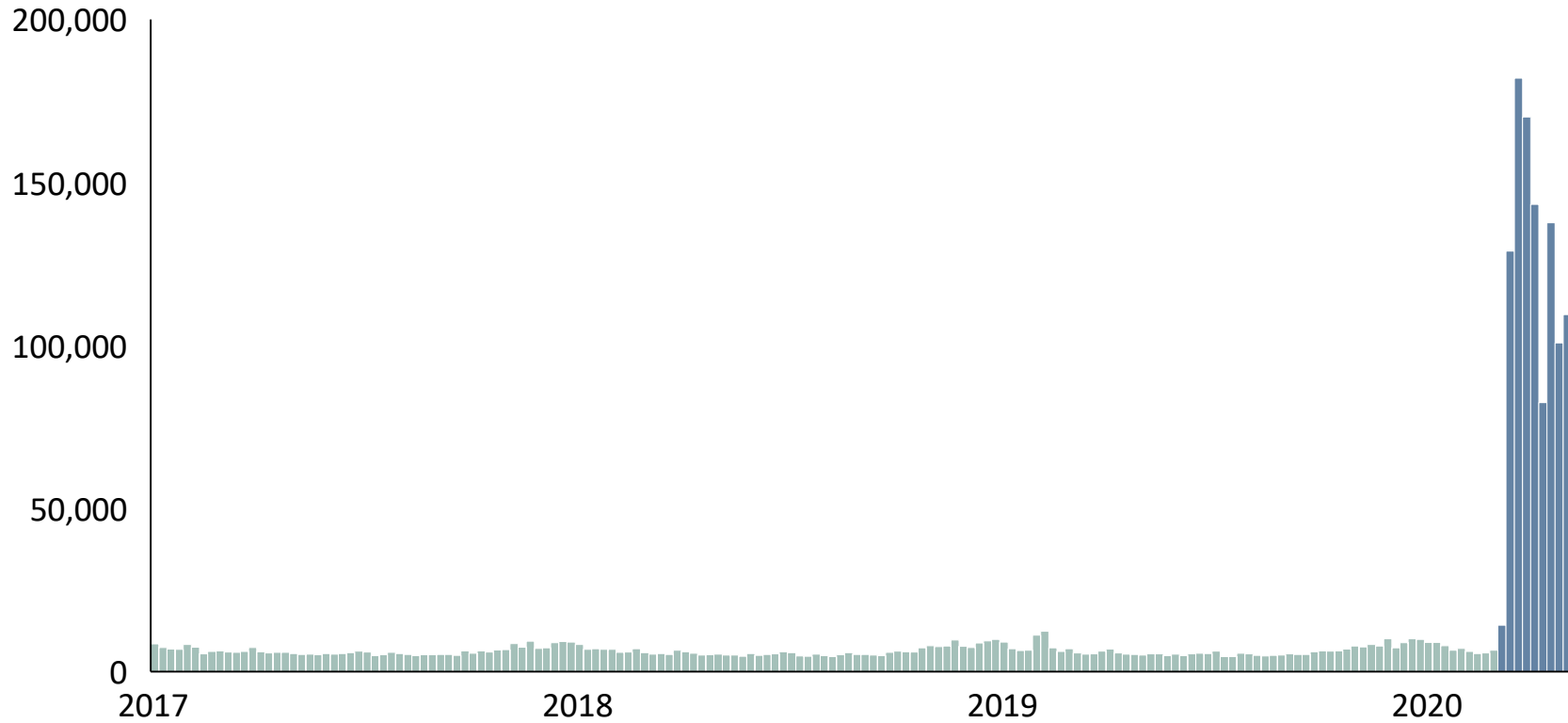


Unemployment in Washington continues to rise at unprecedented pace

Initial unemployment claims in Washington

Weekly count, 1/1/17 through 5/16/20

■ Claims since the week of March 8, 2020¹



>1,200,000

initial unemployment claims have been filed in Washington since March 8, 2020

~17x

as many people have filed for unemployment since March 8, 2020 vs. the previous ten-week period

1. Governor Inslee declared a state of emergency in response to COVID-19 on February 29 and issued limits on large events on March 11. The "Stay Home, Stay Healthy" order took effect on March 23.

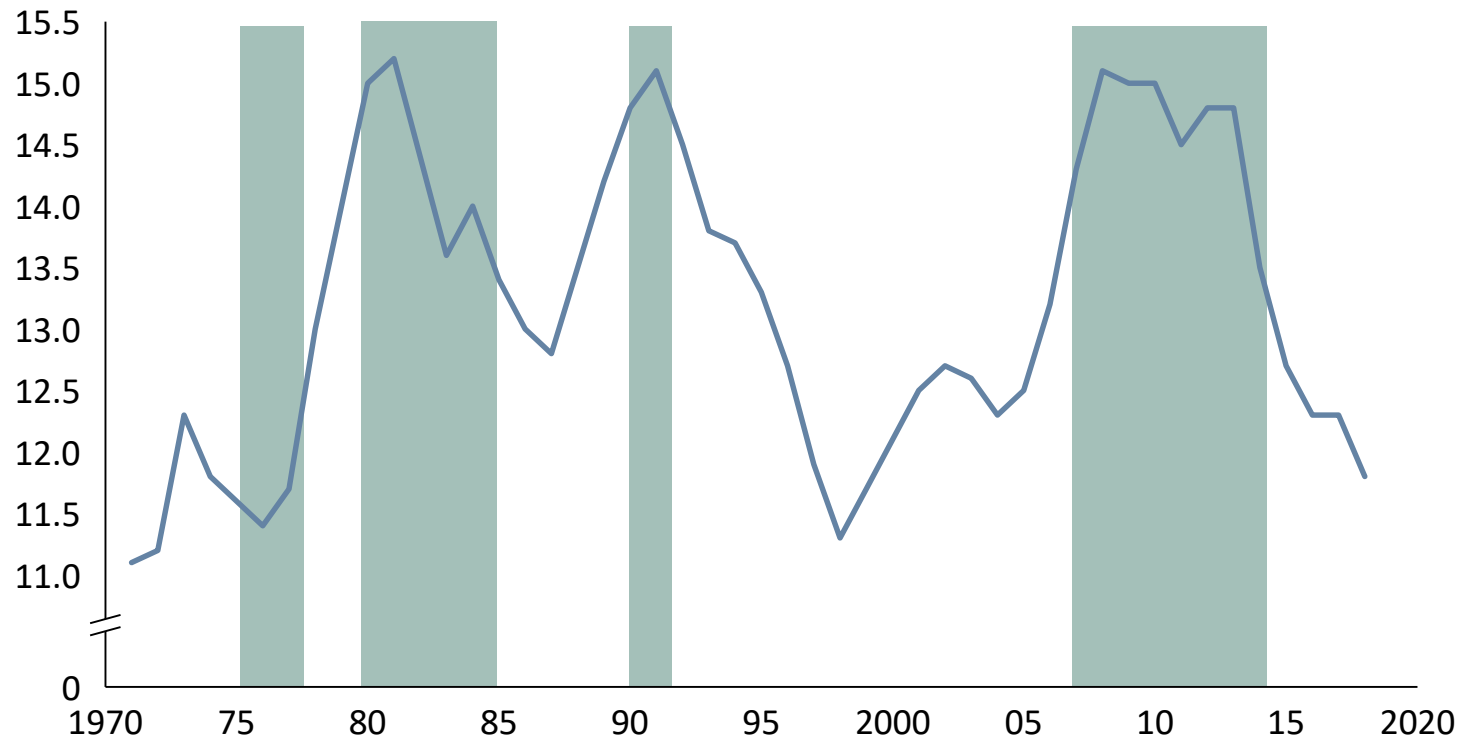
Source: Washington State Employment Security Department, through the week ending May 9, 2020. Claims from the week ending May 16, 2020 are based on U.S. Department of Labor figures and may be revised once Washington publishes its official count.

Elevated unemployment is associated with significant peaks in poverty rates

People in the U.S. living below the federal poverty threshold

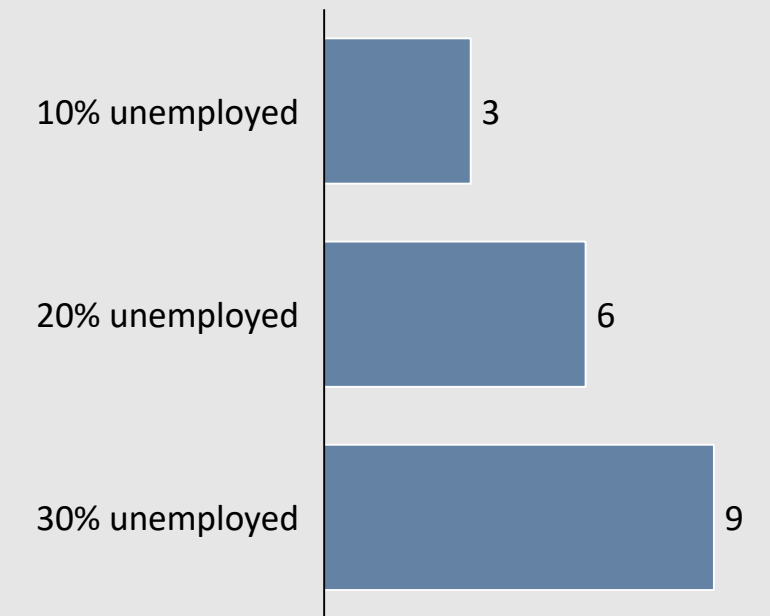
Percent, measured annually

■ Periods of elevated unemployment (>7%)



Projected changes in supplemental poverty measure (SPM) rates under quarterly increase in unemployment (Pre tax/ Transfer)¹

Percentage change, relative to baseline



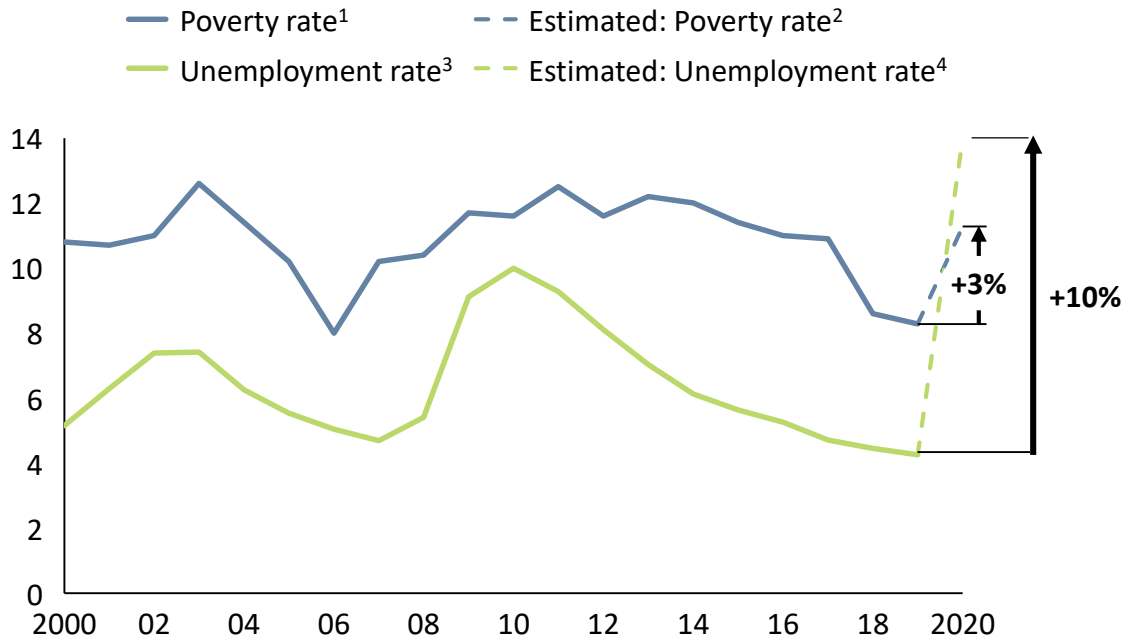
1. As estimated by the Center on Poverty and Social Policy at Columbia University

Source: United States Bureau of labor statistics, "Forecasting estimates of poverty during COIV-19 Crisis", Parolin & Wimer, Columbia University, April 16, 2020

While food insecurity in WA has declined in the past decade, COVID-19 is likely to lead to a significant increase in the food-insecure population

The leading indicators of food insecurity have steadily decreased in WA since the Great Recession...

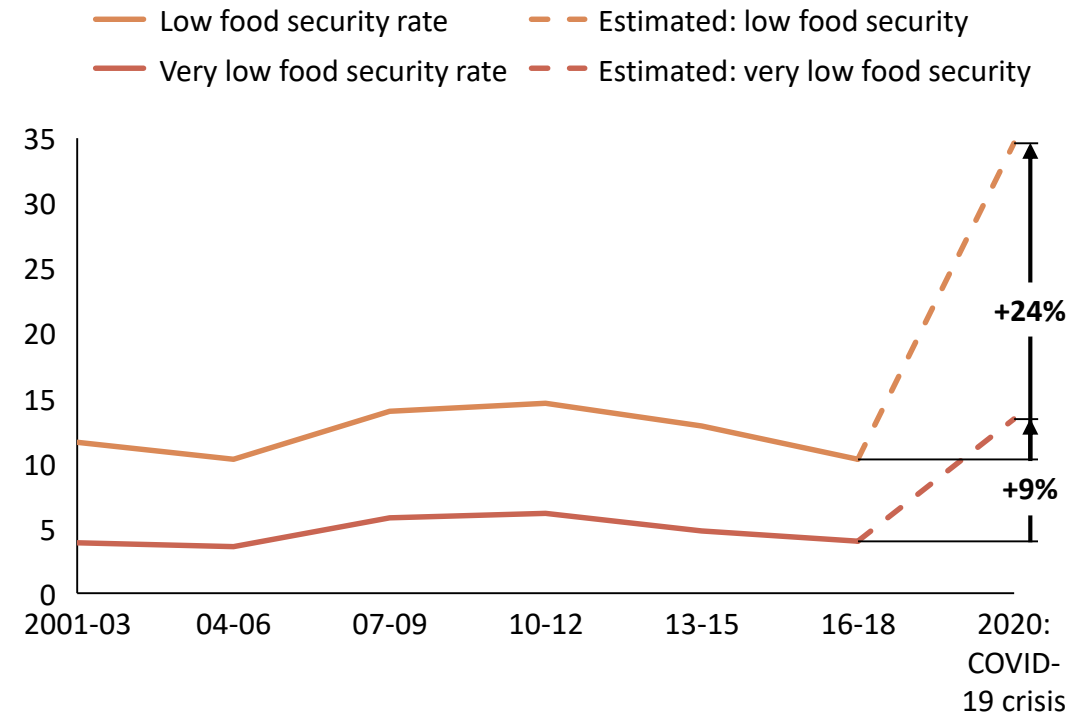
Poverty and unemployment in WA over time, 2000-2020
Share of population (%)



1. 2019 WA poverty rate projected based on 2010-2018 CAGR of -3.7%
2. Projected 3% change in poverty rate under 10% increase in unemployment rate, as estimated by the Center on Poverty and Social Policy at Columbia University
3. U-3 unemployment rate released by Bureau of Labor Statistics
4. National average projected by CBO at close of Q2 2020

...but this trend is likely to be abruptly reversed, with an additional 24% of the population likely to become food insecure

Food insecurity in WA over time, 2000-2020
Share of population by range of food insecurity (%)



Topics for today's discussion

Context for the food insecurity crisis in 2020

Factors and insights relevant to food insecurity

Statewide perspective on food insecurity in Washington

Census tract-level Food Security Dashboard

Perspective on gaps and potential constraints in food supply



National analysis indicates that unemployment and poverty are the two primary drivers of food insecurity

1

percentage-point increase in **unemployment rate**



is associated with a

0.52

percentage-point increase in the food insecurity rate

1

percentage-point increase in the **poverty rate**



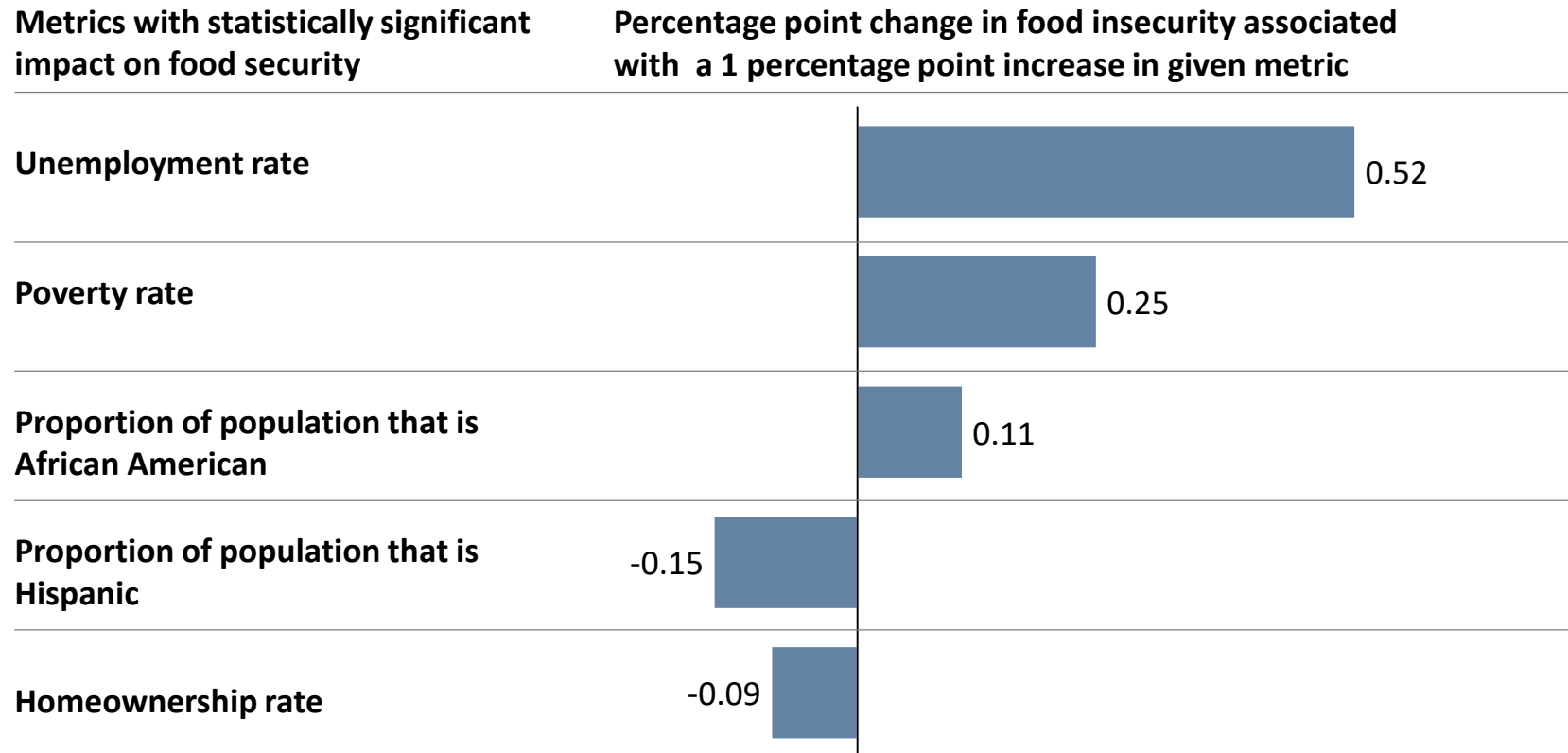
is associated with a

0.25

percentage-point increase in the food insecurity rate

Minority share of the population, homeownership, and median income are also relevant predictors

Systemic factors with statistically significant impact on food insecurity rates, based on Feeding America analysis of food insecurity across all counties in United States



Median income is also included by Feeding America as statistically significant, though quantitative relationship with food insecurity rates is not published

Choice of variables in Feeding America's correlation analysis is driven by existing literature on determinants of food insecurity, and restricted to variables that are available on both state and county level in ACS and CPS data sets.

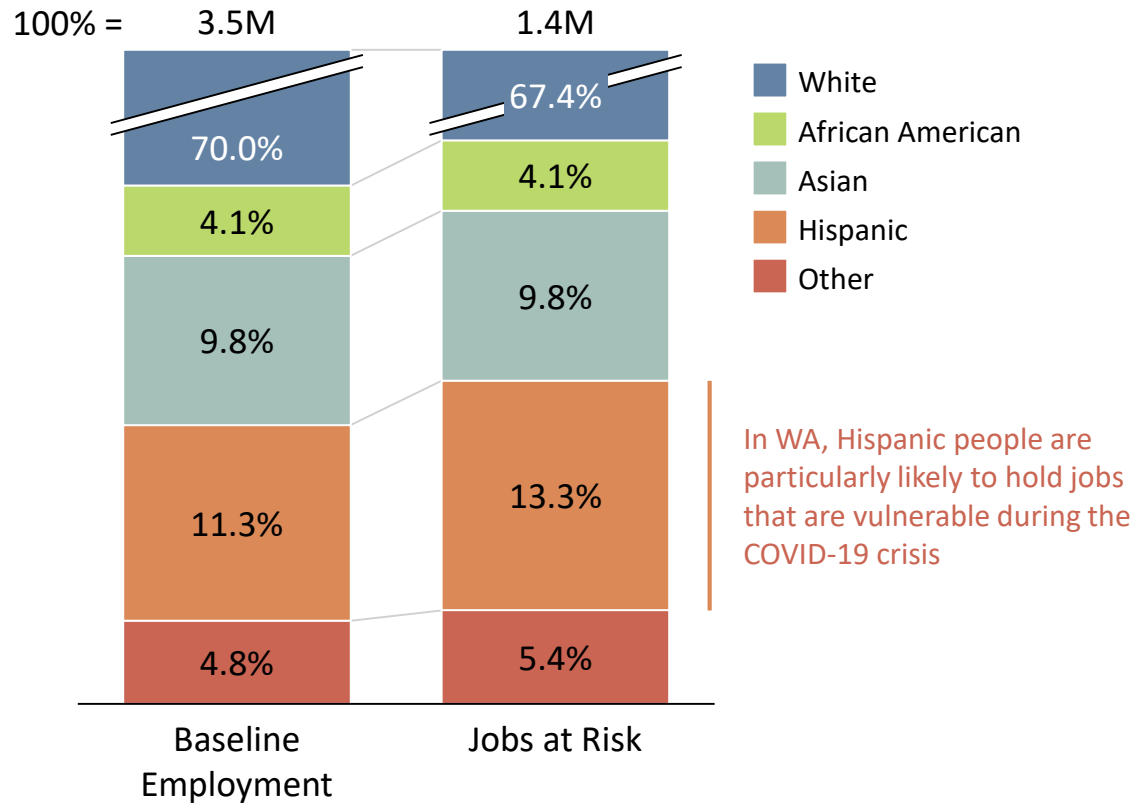
In addition, multiple research papers have established a correlation between food insecurity and the following variables:

- Rental burden
- Health insurance coverage
- Food and utility prices
- Financial literacy and financial assets
- Composition of household (e.g. households with single-parent or dependent family member)

WA jobs that are vulnerable during the crisis are disproportionately held by people of color and people without a bachelor's degree

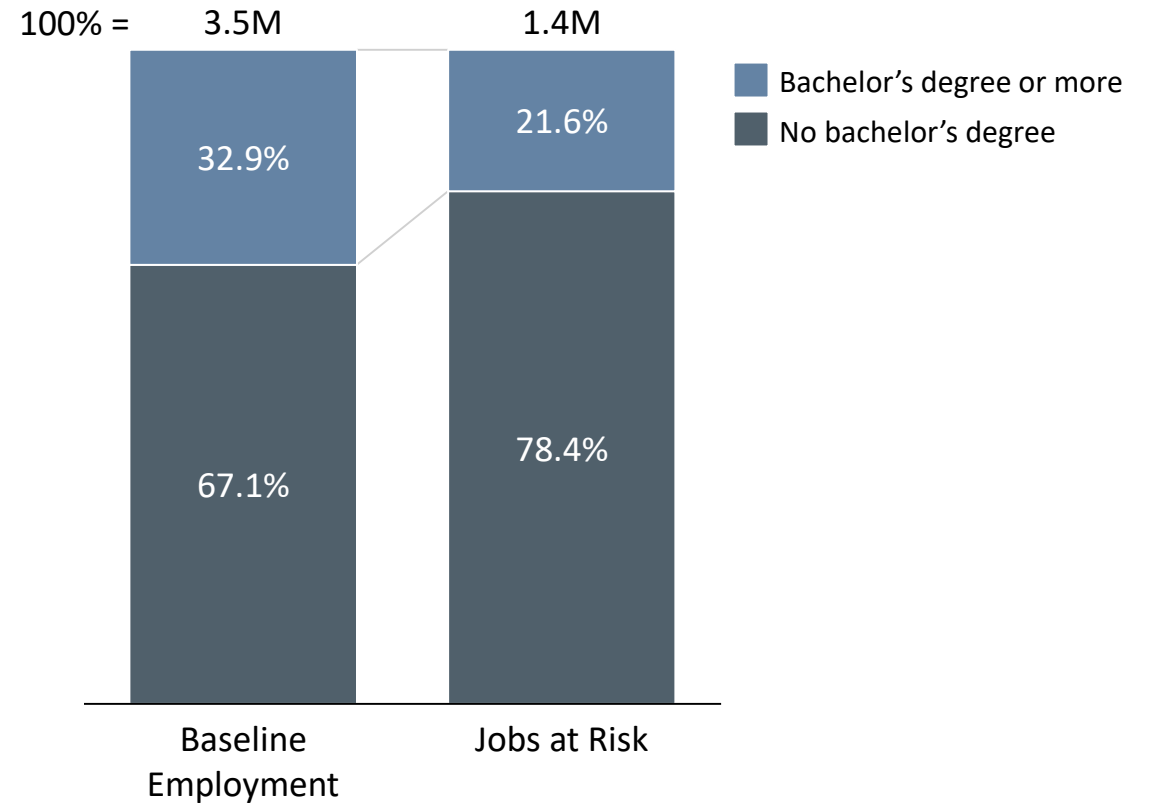
Jobs at risk by race and ethnicity

As reported in the American Communities Survey



Jobs at risk by educational attainment

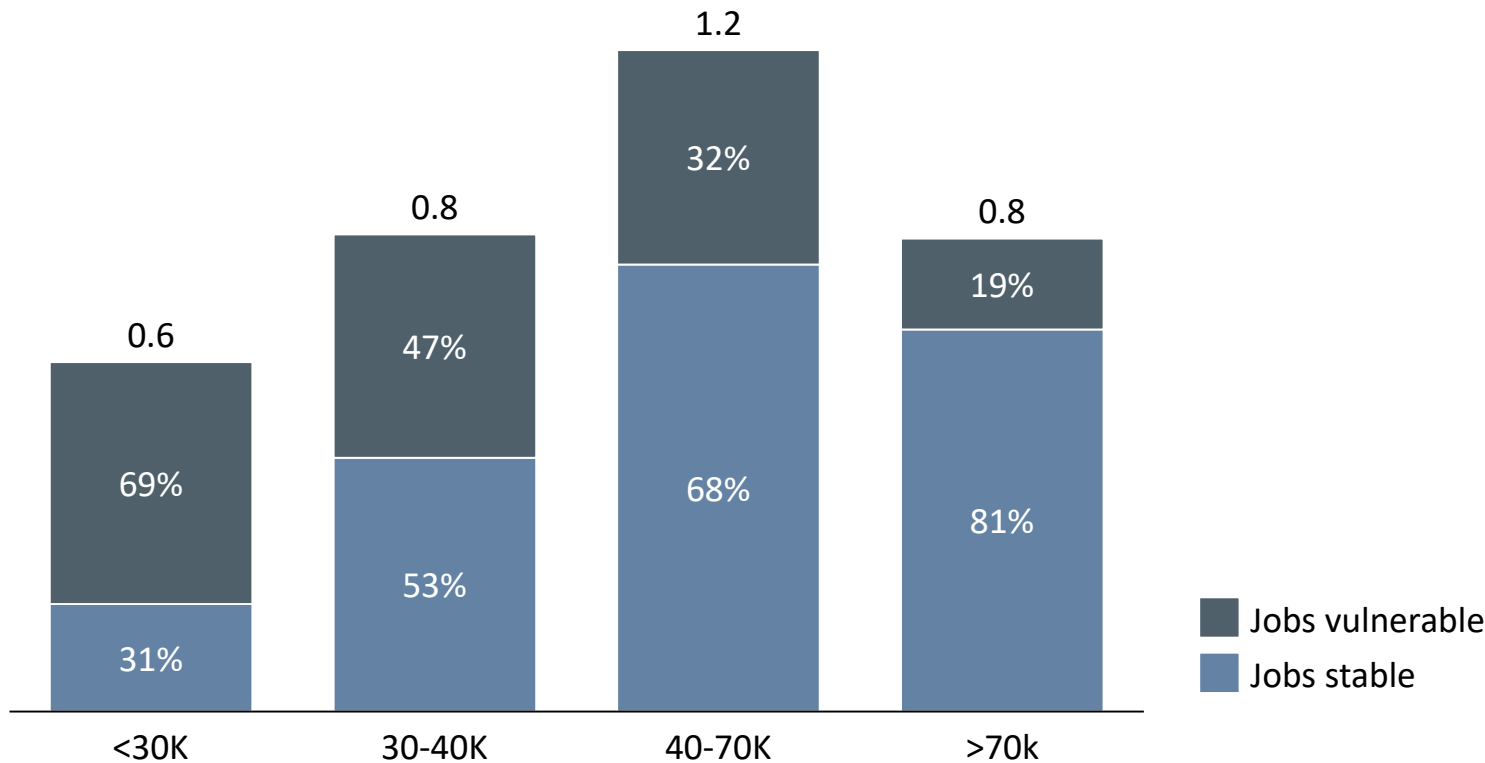
As reported in the American Communities Survey



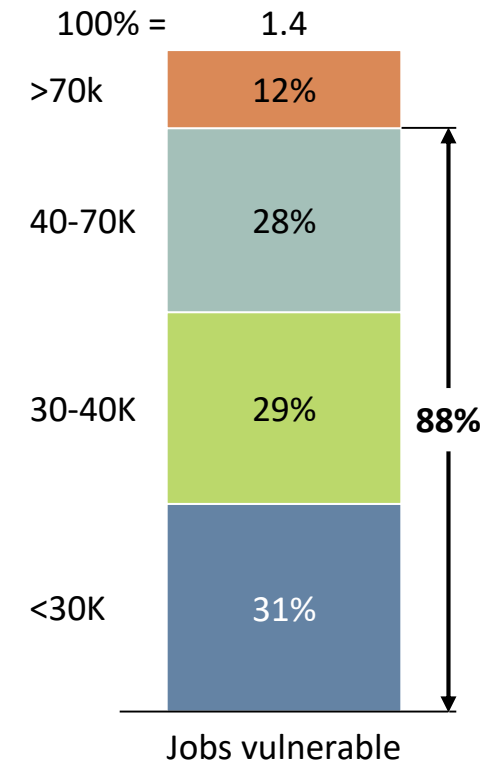
88% of people in Washington with jobs vulnerable to disruption in the current crisis have incomes below \$70k / year

Many people in this group may be eligible for unemployment benefits that replace most of their wages (or more)

Level of job vulnerability, by income band (M)



Share of vulnerable jobs, by income band (M)



Note: Vulnerable jobs are those predicted to be furloughed, laid-off, or otherwise unproductive (e.g., kept on payroll but not working) during periods of high social distancing

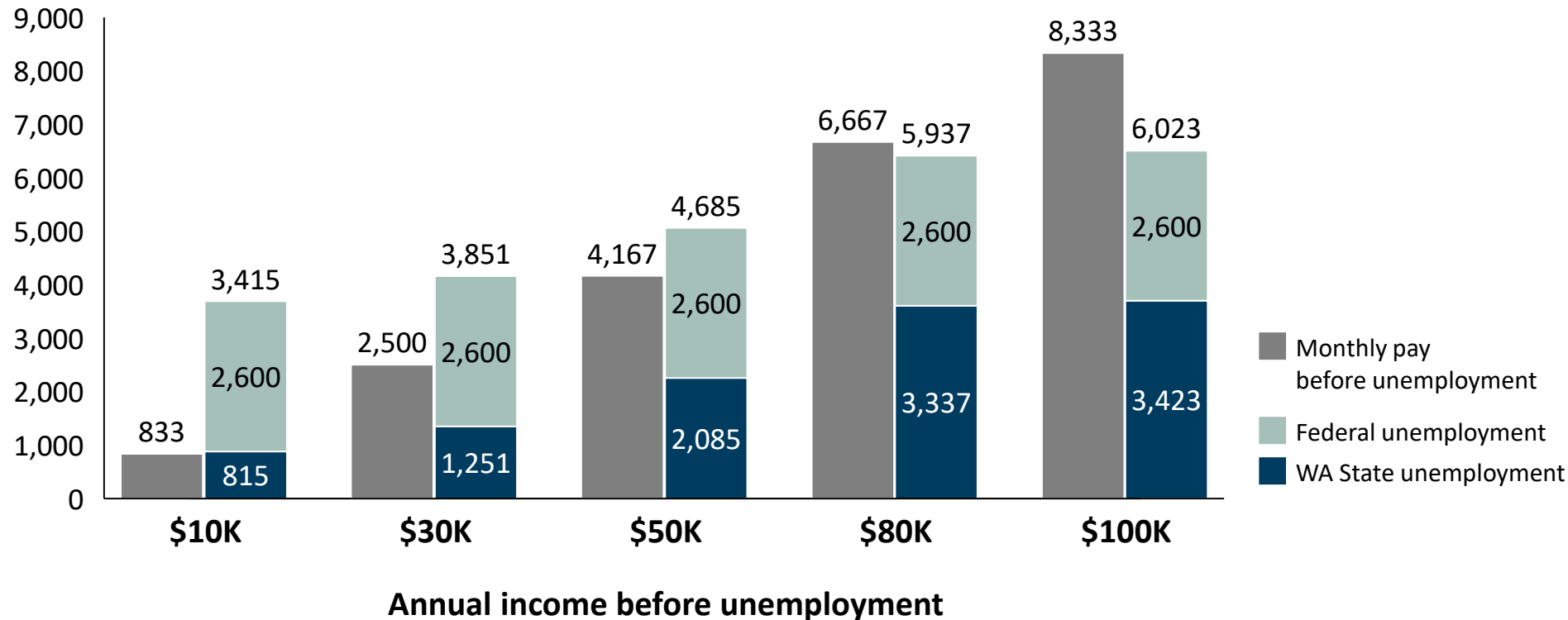
Source: LaborCUBE; McKinsey Global Institute, "COVID-19 and jobs: Monitoring the US impact on people and places," available online at <https://www.mckinsey.com/industries/public-sector/our-insights/covid-19-and-jobs-monitoring-the-us-impact-on-people-and-places>

Enhanced unemployment benefits under the CARES Act may reduce the share of newly unemployed people who are food insecure

In current expected scenario of four months of federal unemployment insurance increase of \$600

Monthly income, before and after unemployment

\$ per month



\$62.5K

Initial salary at which enhanced monthly benefits would no longer fully replace wages

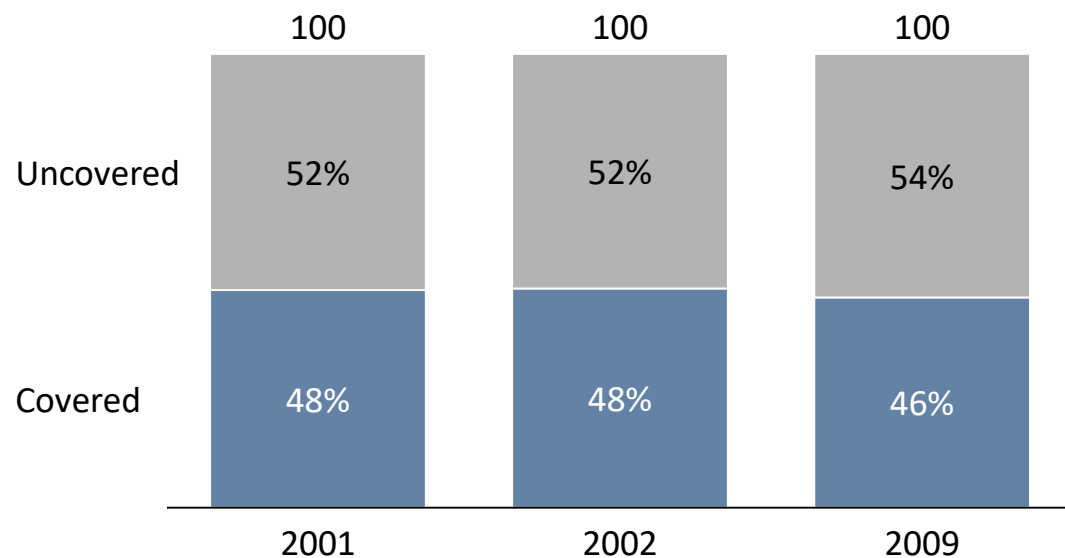
~1.2M
(~80%)

Individuals with vulnerable jobs for whom enhanced benefits would breakeven with salary

However, these benefits will not fully address all needs

Roughly 50% of unemployed individuals in WA receive unemployment insurance (UI)...

Unemployment insurance coverage in recession years, %



Note: % of unemployed covered by UI tends to go up in recession years

Source: Federal Reserve Bank of St. Louis Economic Data, U.S. Department of Labor press release on pandemic unemployment compensation

...and enhanced UI is a limited-time measure

■ Duration of UI benefits in existing law



Topics for today's discussion

Context for the food insecurity crisis in 2020

Factors used to estimate food insecurity

Statewide perspective on food insecurity in Washington

Census tract-level Food Security Dashboard

Perspective on gaps and potential constraints in food supply



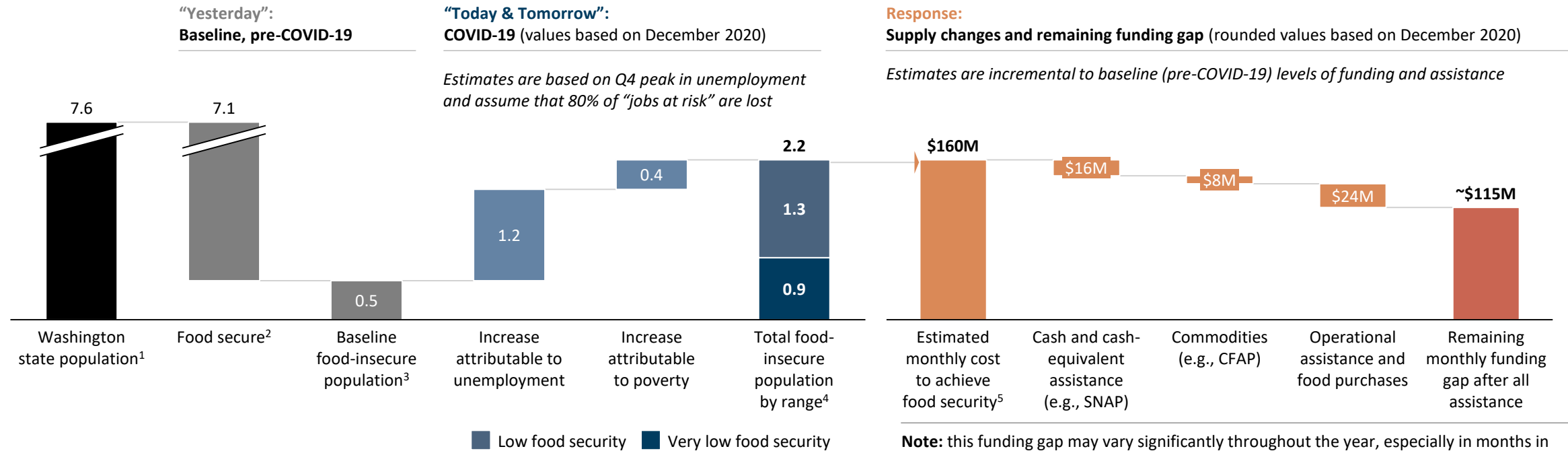
The Food Security Model indicates that up to \$115 million per month could be required to address food insecurity during the peak of the current crisis

Estimate is incremental to existing programs, including SNAP, TEFAP, and EFAP

Estimate as of May 20, 2020, based on information available at the time; subject to change pending further assumption validation

Population by range of food security

Millions of people



Note: this funding gap may vary significantly throughout the year, especially in months in which enhanced unemployment insurance benefits are available under the CARES Act

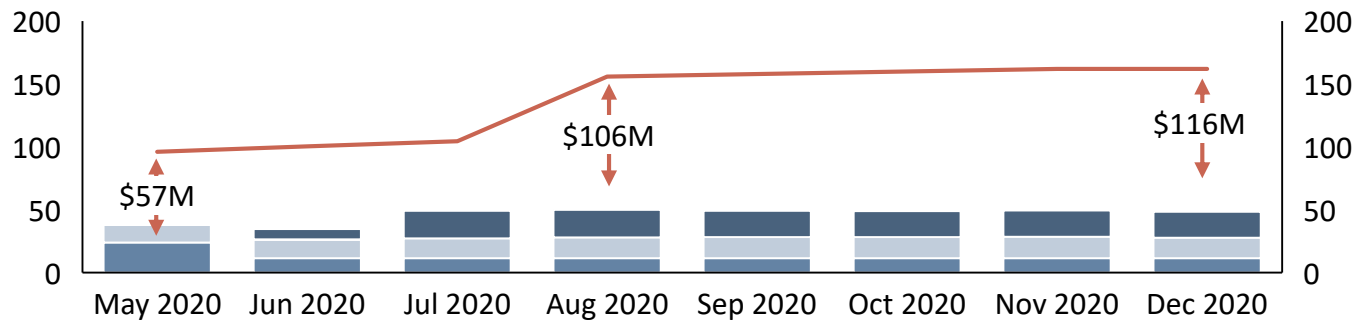
1. U.S. Census Bureau, 2019
2. Includes independently Food Secure individuals as well as individuals who are Food Secure after receiving assistance
3. US Dept of Agriculture, based on 10.3% rate of food insecurity (low and very low food security), and 4.0% rate of very low food security last measured in 2018. This estimate may undercount certain groups, including immigrants and tribal populations.
4. Based on estimated impact of observed change in unemployment and estimated change in poverty on food security, using coefficients from Feeding America, “Map the Meal Gap 2019.” Assumes enhanced unemployment insurance benefits expire at the end of July 2020
5. Cost to achieve food security is based on Feeding America, “Map the Meal Gap 2019,” Table 4: Breakdowns of Weekly Cost to be Food Secure in 2017, adjusted to 2020 dollars using CPI-U; assumes that the average food-insecure person experiences food insecurity for 7 out of 12 calendar months, and that all people who become food insecure during the 2020 crisis remain food insecure in the month of peak need. Shock based on Q4 peak unemployment scenario and 80% JAR becoming unemployed

The gap between demand and supply may peak in August or December, depending on economic scenario

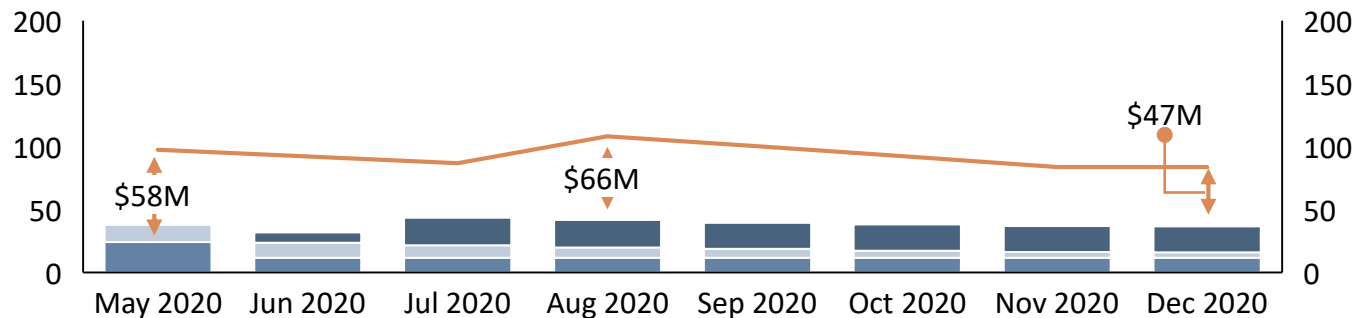
Preliminary

Estimated supply and demand for food assistance in Washington, \$M

Q4 Peak Scenario



Q2 Peak Scenario



1. Includes SNAP, TANF, CEAP
2. Includes TEFAP, CFAP, and student meals
3. Includes changes to EFAP distribution

Expiration of enhanced unemployment insurance in any scenario is likely to lead to an increase in spike demand for food assistance

In a Q4 peak scenario, expect an average gap of ~\$90M monthly, as opposed to an average gap of ~\$55M monthly in a Q2 peak scenario

Cash assistance on a per-individual basis makes up the bulk of current expected supply increases

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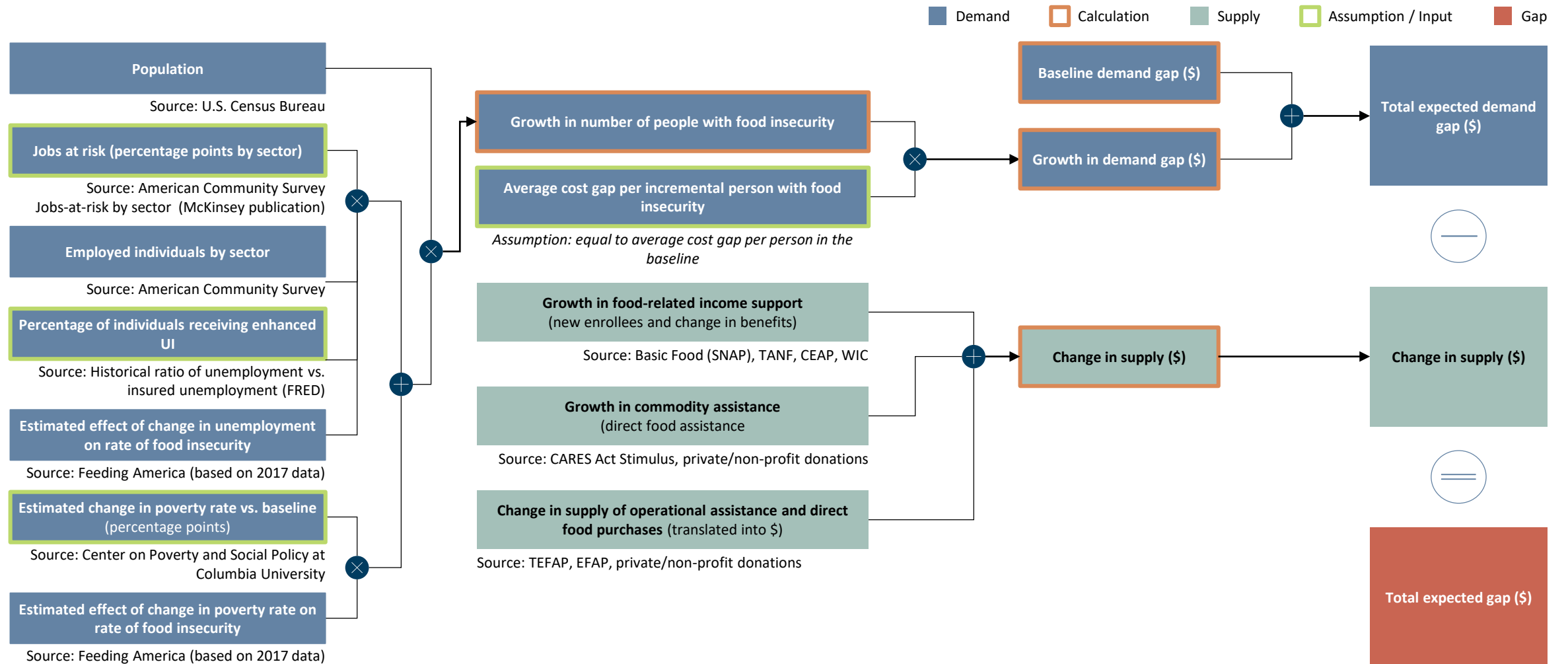
Census tract-level Food Security Dashboard

Perspective on gaps and potential constraints in food supply



The Food Security model estimates scenarios for the level of food insecurity in Washington based on economic conditions

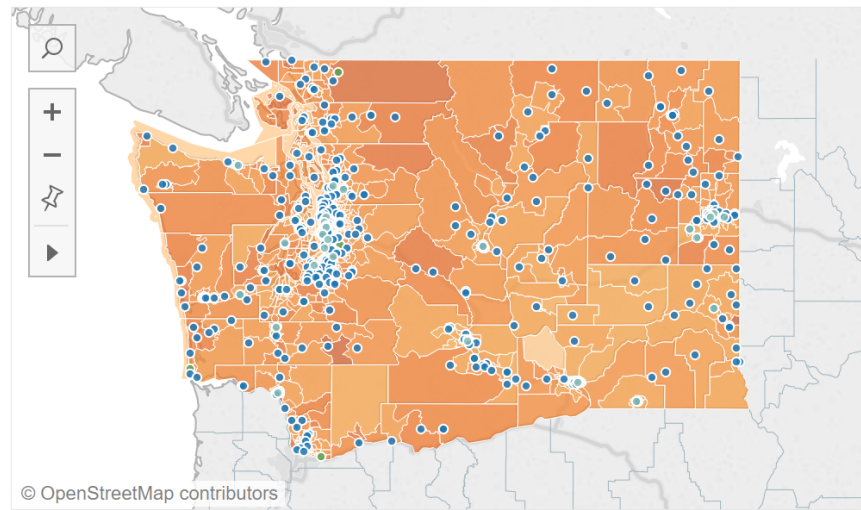
The model is designed to be flexible and can be updated based on new information and updated assumptions



The Food Security Dashboard displays various Census tract-level insights on the distribution of food insecurity in Washington

Scenario: Q4 Peak | County Name: (All) | Spending gap per food-insecure person: \$74 | Month(s) to count for spending gap: Dec

Food Insecurity Rate as of December 2020



Demographics

in the selected geography, as of the 2018 American Community Survey

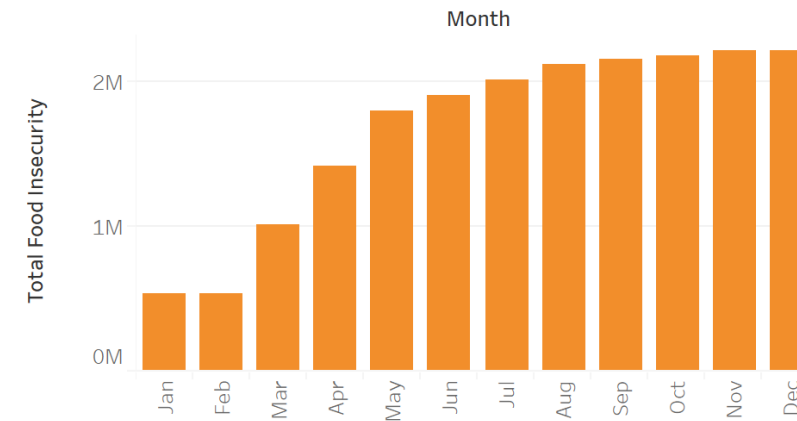
Share of people below federal poverty level	13%
Share of households receiving food stamps	13%
Share of people 25 and older with a bachelor's degree or higher	35%
Share of people 5 and older who speak English less than very well	8%

Total Spending Gap

to address food insecurity the selected geography for months selected above

\$163,600,000

People experiencing food insecurity in the selected geography



The dashboard updates automatically based on the selected economic scenario (Q2 or Q4 peak in unemployment)

This example shows the statewide funding gap in December 2020 under a “Q4 peak” scenario – these inputs can be changed using the selectors in the top row

Sources: U.S. Census Bureau, WA Employment Security Department, Bureau of Labor Statistics, U.S. Dept. of Agriculture, Feeding America, Urban Institute, Columbia University Center on Poverty and Social Policy. These estimates include an adjustment for communities that may be undercounted in the Census, including Native American, Hispanic and Latinx, Asian, and African American communities; this adjustment adds ~18,000 individuals to the count of food-insecure people statewide. All estimates are based on information available as of May 19, 2020, and are subject to revision.

The dashboard can flexibly “drill down” to specific geographies within Washington, providing relevant details for local audiences

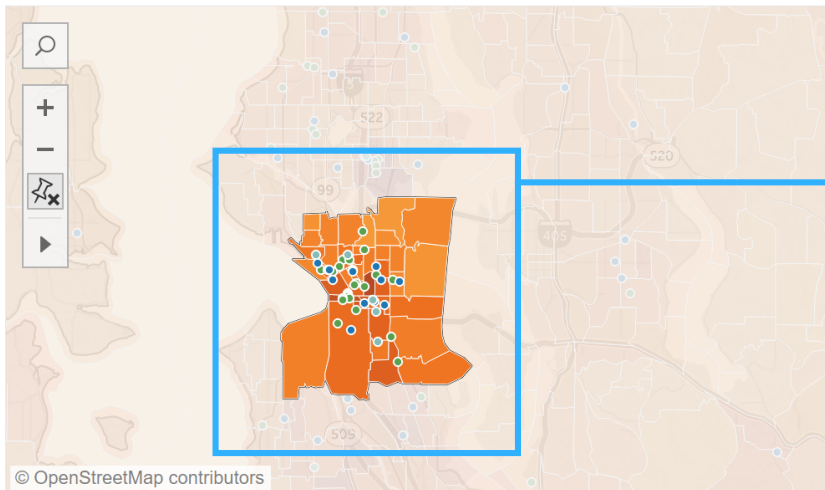
Scenario: Q4 Peak | County Name: (All) | Spending gap per food-insecure person: \$74 | Month(s) to count for spending gap: Dec

Food Insecurity Rate
as of December 2020

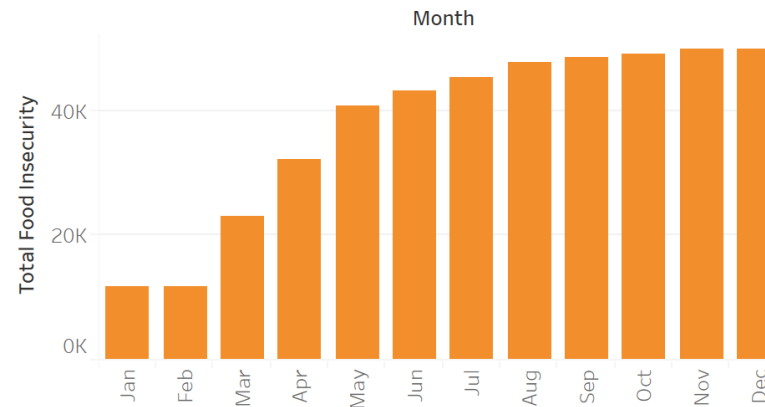


Total Spending Gap
to address food insecurity the selected geography for months selected above

\$3,700,000



People experiencing food insecurity in the selected geography



Selecting a subset of Census tracts updates the estimated spending gap and graph of the number of people experiencing food insecurity

Demographics

in the selected geography, as of the 2018 American Community Survey

Share of people below federal poverty level	11%
Share of households receiving food stamps	9%
Share of people 25 and older with a bachelor’s degree or higher	67%
Share of people 5 and older who speak English less than very well	7%

Sources: U.S. Census Bureau, WA Employment Security Department, Bureau of Labor Statistics, U.S. Dept. of Agriculture, Feeding America, Urban Institute, Columbia University Center on Poverty and Social Policy. These estimates include an adjustment for communities that may be undercounted in the Census, including Native American, Hispanic and Latinx, Asian, and African American communities; this adjustment adds ~18,000 individuals to the count of food-insecure people statewide. All estimates are based on information available as of May 19, 2020, and are subject to revision.

The dashboard also provides Census tract-level demographic insights from the American Community Survey

Scenario: Q4 Peak | County Name: (All) | Spending gap per food-insecure person: \$74 | Month(s) to count for spending gap: Dec

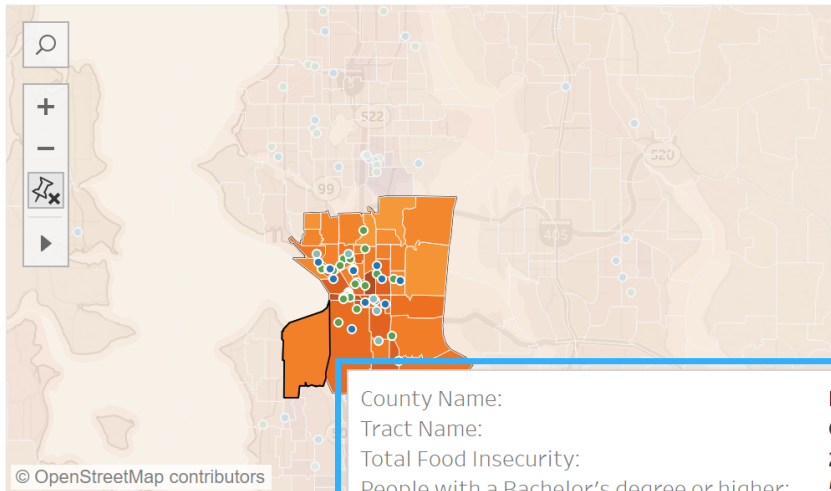
Food Insecurity Rate
as of December 2020



Total Spending Gap
to address food insecurity the selected geography for months selected above

\$3,700,000

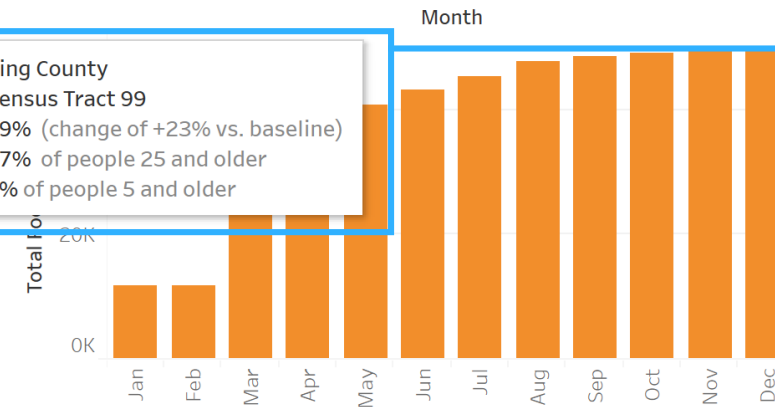
People experiencing food insecurity
in the selected geography



Demographics

in the selected geography, as of the 2018 American Community Survey





Share of people below federal poverty level	11%
Share of households receiving food stamps	9%
Share of people 25 and older with a bachelor's degree or higher	67%
Share of people 5 and older who speak English less than very well	7%



“Hovering” over a Census tract provides additional detail about potential local change in food insecurity, along with additional demographic insights

Sources: U.S. Census Bureau, WA Employment Security Department, Bureau of Labor Statistics, U.S. Dept. of Agriculture, Feeding America, Urban Institute, Columbia University Center on Poverty and Social Policy. These estimates include an adjustment for communities that may be undercounted in the Census, including Native American, Hispanic and Latinx, Asian, and African American communities; this adjustment adds ~18,000 individuals to the count of food-insecure people statewide. All estimates are based on information available as of May 19, 2020, and are subject to revision.

There are some potential scenarios where food insecurity could deviate significantly from currently modelled scenarios

Scenarios:	Likely impact on food insecurity:	Potential modelling solution:
<p>Virus resurgence</p> <p>A second peak in COVID-19 case triggers a second shutdown, creating a second peak in unemployment, poverty, and food insecurity</p>		<p>Create a new unemployment scenario that reflects a likely result of resurgence (Tab: “Modelling Scenarios”)</p>
<p>Discovery of a vaccine ahead of expected timeline</p> <p>Discovery of a vaccine on an accelerated timeline would greatly increase confidence in a return-to-work, blunting the spike in unemployment</p>		<p>Create a new unemployment scenario that reflects a likely result of renewed confidence in return-to-work (Tab: “Modelling Scenarios”)</p>
<p>Significant return-to-work with reduced hours</p> <p>If many people return to work on a reduced-hours basis and lose eligibility for enhanced unemployment insurance, expect food insecurity to rise</p>		<p>Assume a higher coefficient of impact of the effect of unemployment (Tab: “Modelling assumptions”), while accurately reflecting observed shape of unemployment (Tab: Modelling Scenarios)</p>
<p>Major strategy / policy change in stimulus for unemployment</p> <p>If the structure of unemployment stimulus support changes significantly (e.g., toward a paycheck recovery program), this may affect the magnitude of unemployment across the state (in either direction, depending on the strategy)</p>		<p>Create a new unemployment scenario that reflects change in return-to-work patterns (Tab: “Modelling Scenarios”)</p>

Topics for today's discussion

Context for the food insecurity crisis in 2020

Factors used to estimate food insecurity

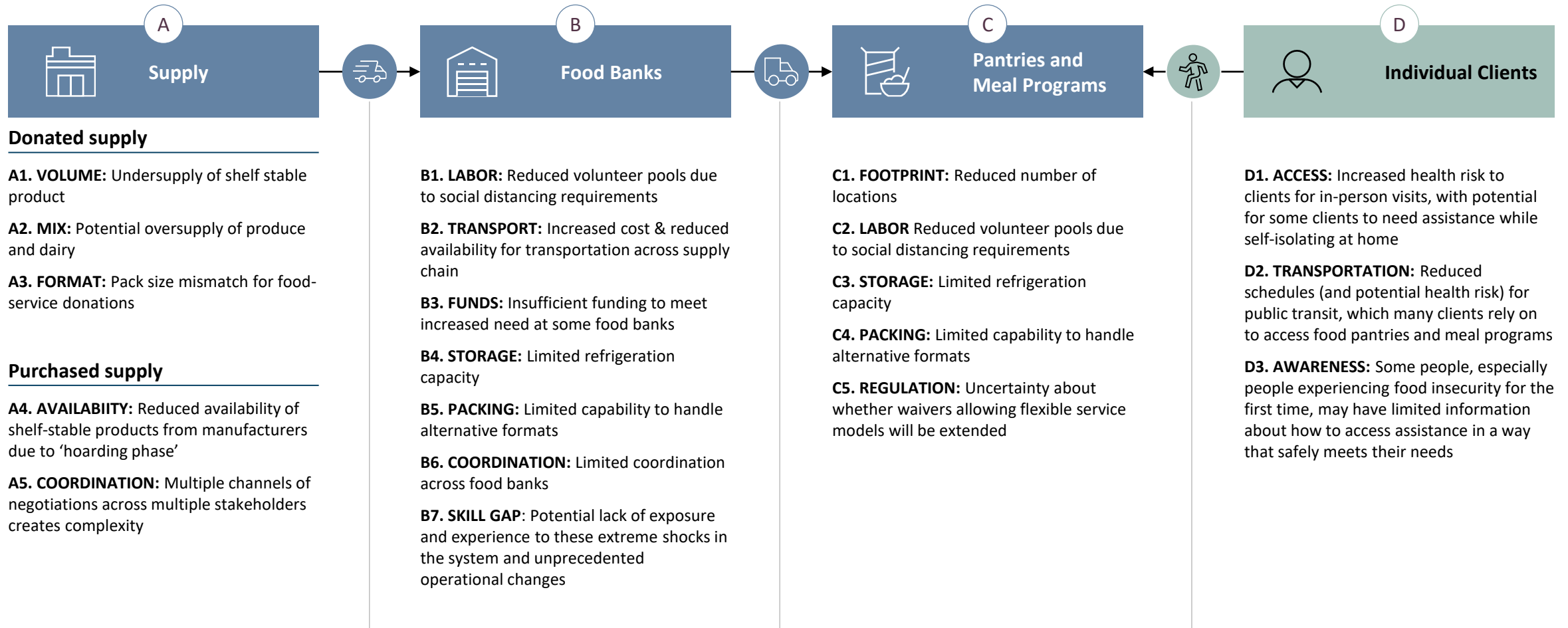
Statewide perspective on food insecurity in Washington

Census tract-level Food Security Dashboard

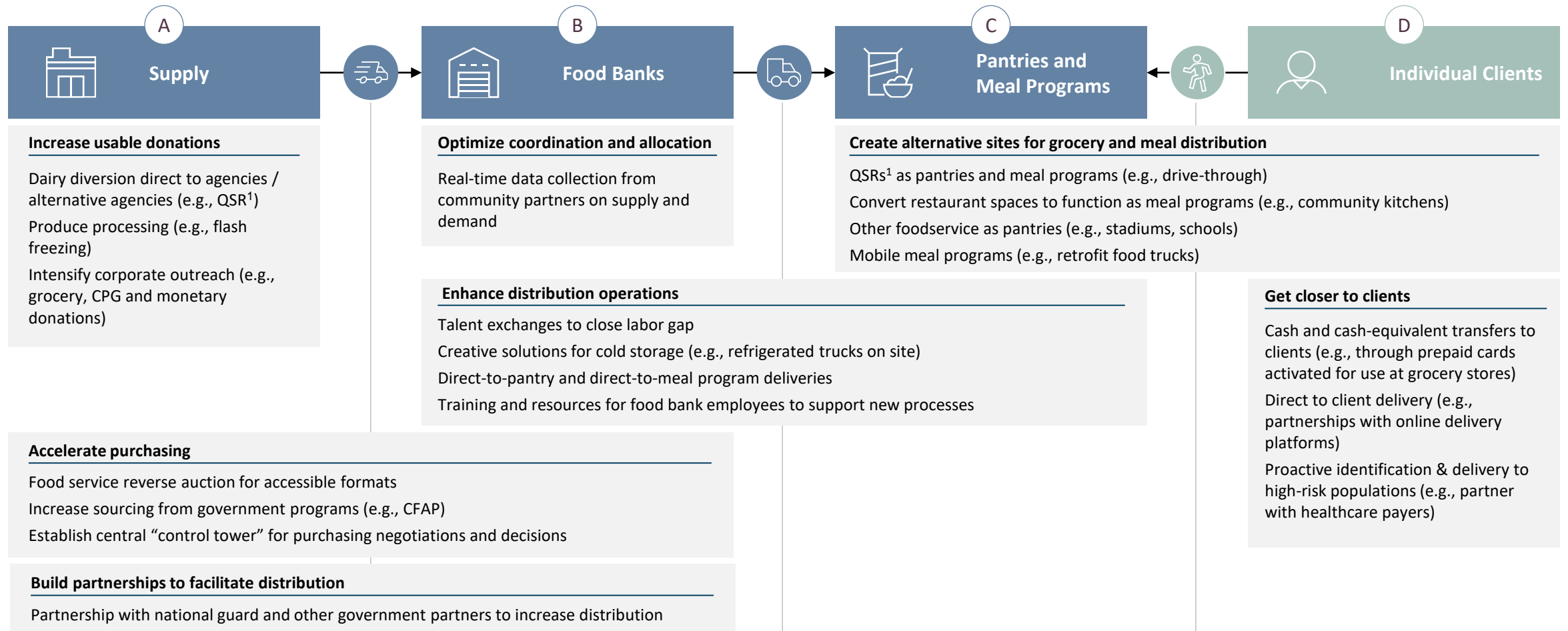
Perspective on gaps and potential constraints in food supply



As a result of COVID-19, the food assistance supply chain is suffering from several challenges



There are a variety of measures that could help address supply constraints; Northwest Harvest already implementing several of these



1. Quick Service Restaurants

Thank you!

Appendix – Supporting information

Scenarios for the Economic Impact of the COVID-19 Crisis

GDP Impact of COVID-19 Spread, Public Health Response, and Economic Policies

Scenarios B (“Q2 Peak”) and E (“Q4 Peak”) are the default cases for the Food Security Model

Virus Spread & Public Health Response

Effectiveness of the public health response in controlling the spread and human impact of COVID-19

Rapid and effective control of virus spread

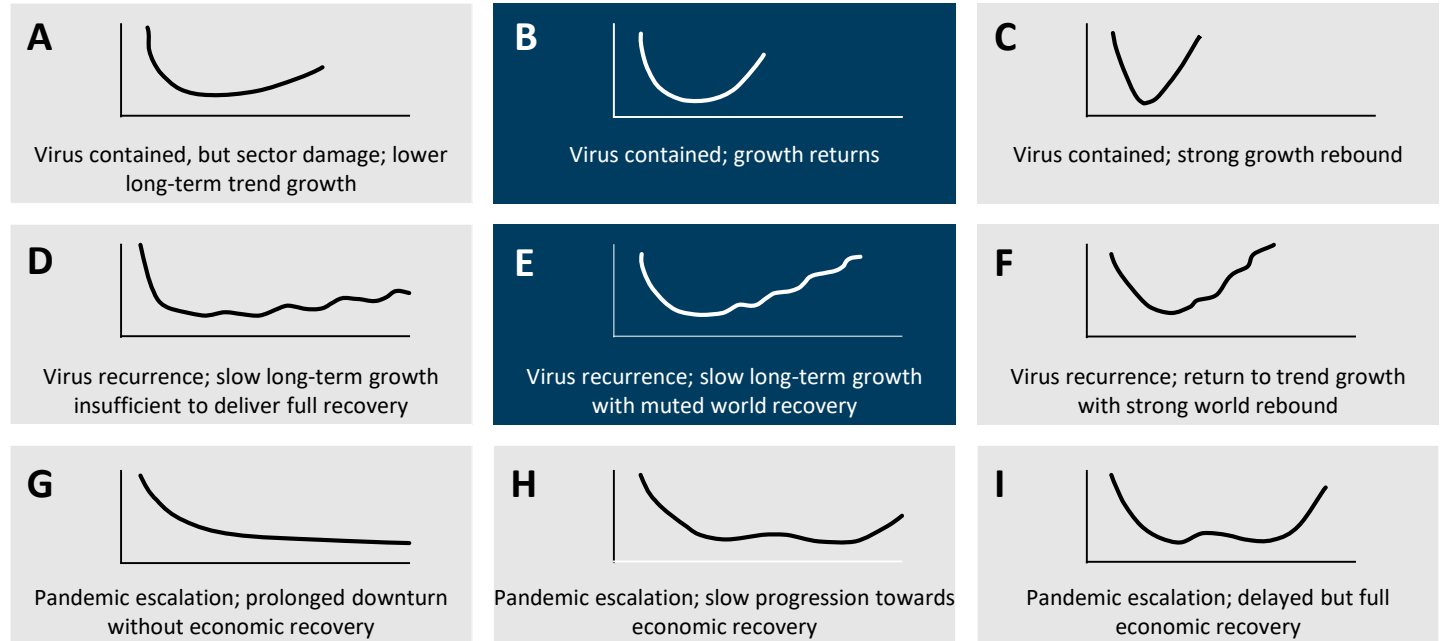
Strong public health response succeeds in controlling spread in each country within 2-3 months

Effective response, but (regional) virus recurrence

Initial response succeeds but is insufficient to prevent localized recurrences; local social distancing restrictions are periodically reintroduced

Broad failure of public health interventions

Public health response fails to control the spread of the virus for an extended period of time (e.g., until vaccines are available)



Ineffective interventions

Self-reinforcing recession dynamics kick-in; widespread bankruptcies and credit defaults; potential banking crisis

Partially effective interventions

Policy responses partially offset economic damage; banking crisis is avoided; recovery levels muted

Highly effective interventions

Strong policy responses prevent structural damage; recovery to pre-crisis fundamentals and momentum

Knock-on Effects & Economic Policy Response

Speed and strength of recovery depends on whether policy moves can mitigate self-reinforcing recessionary dynamics (e.g., corporate defaults, credit crunch)

Executive expectations about the shape of coronavirus crisis

Survey of 2,079 global executives; % of respondents

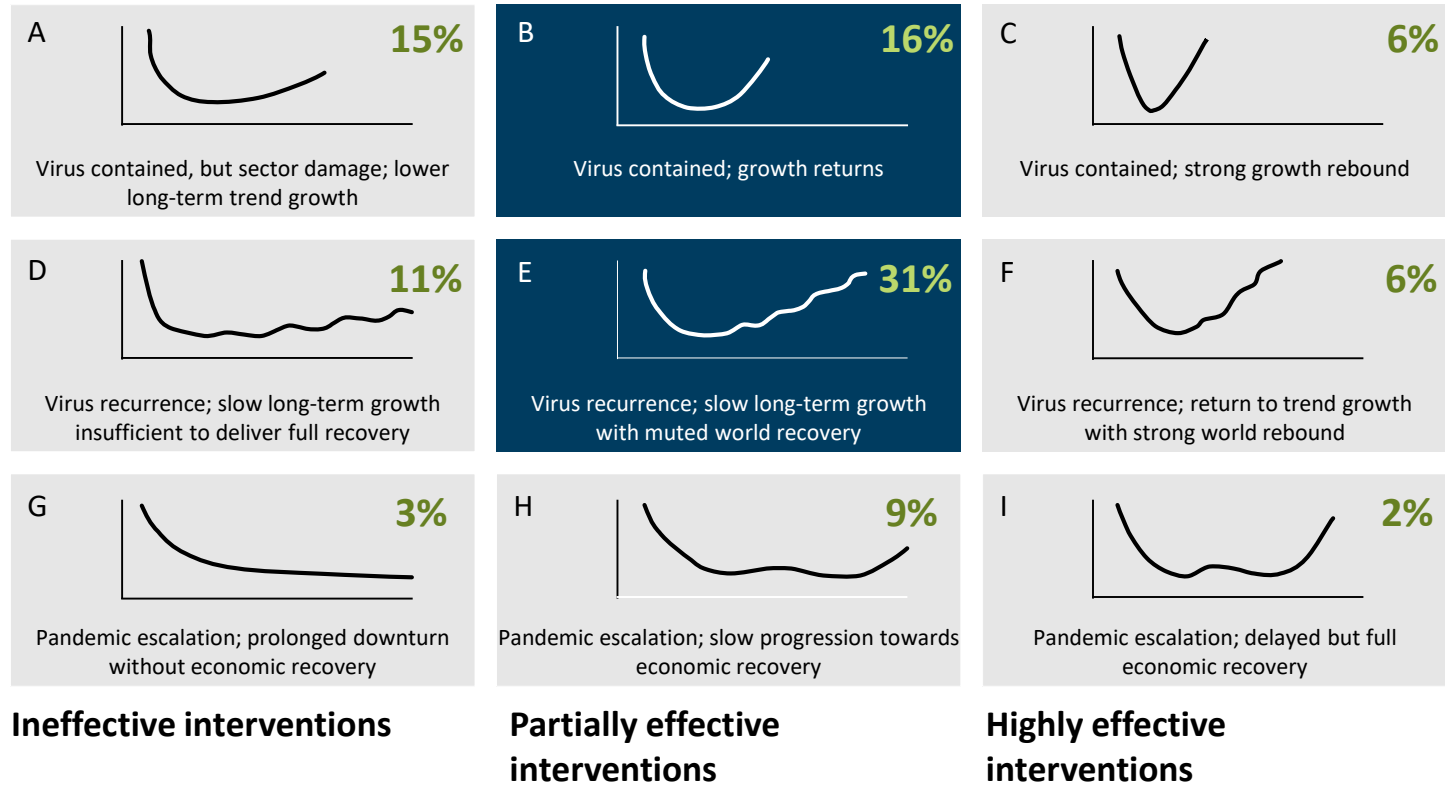
Scenarios B (“Q2 Peak”) and E (“Q4 Peak”) are the default cases for the Food Security Model

Virus spread and public health response

Rapid and effective control of virus spread

Effective response, but (regional) virus resurgence

Broad failure of public health interventions

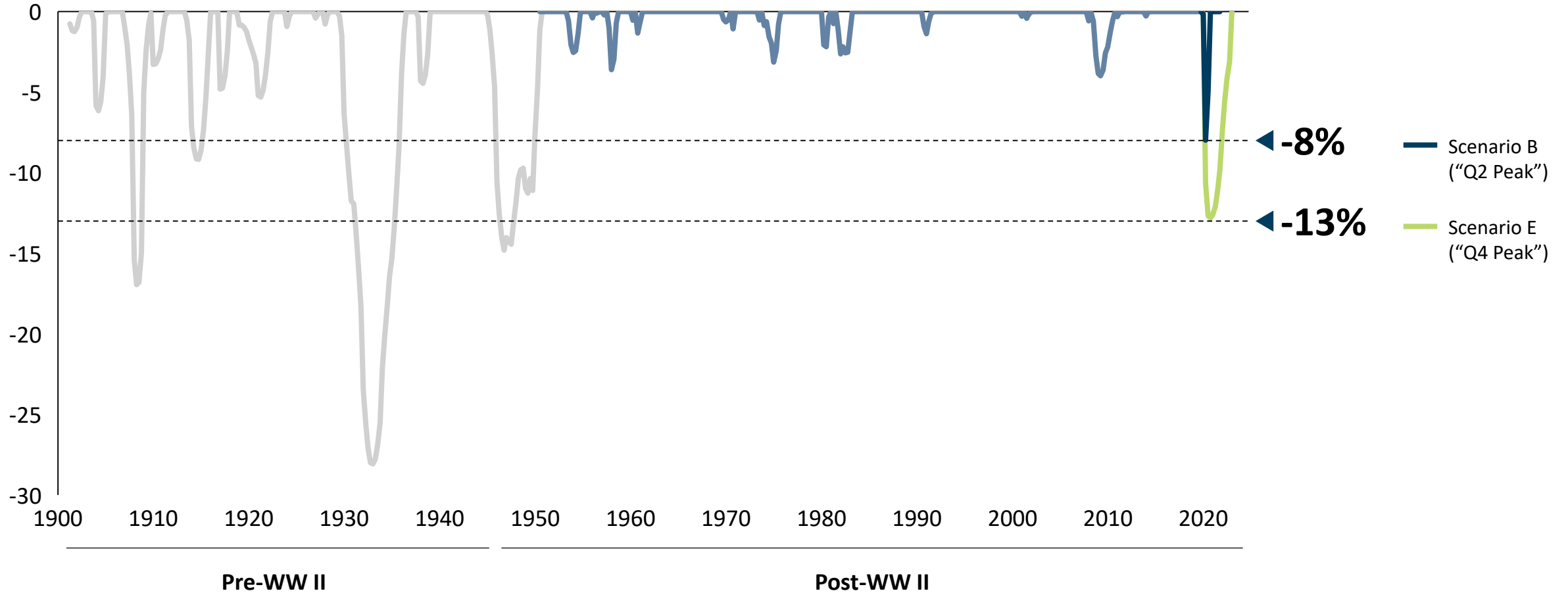


Knock-on effects and economic policy response

COVID-19 U.S. impact could exceed anything since the end of WWII

United States real GDP

%, total draw-down from previous peak

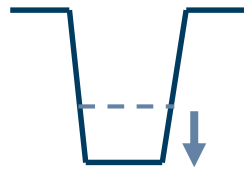


What leaders are looking for to decide among potential scenarios

There are three major questions leaders are asking, and a number of indicators that can give clues

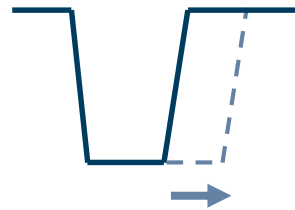
Depth of disruption

How deep are the demand reductions?



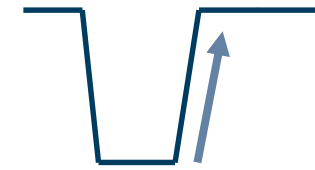
Length of disruption

How long could the disruption last?



Shape of recovery

What shape could recovery take?



Indicators

Epidemiological

Time to implement social distancing after community transmission confirmed

Number of cases – absolute (expect surge as testing expands)

Geographic distribution of cases relative to economic contribution

Rate of change of cases

Evidence of virus seasonality

Test count per million people

% of cases treated at home

% utilization of hospital beds (overstretched system recovers slower)

Availability of therapies

Case fatality ratio vs. other countries

Effective integration of public health measures with economic activity (e.g. rapid testing as pre-requisite for flying)

Potential for different disease characteristics over time (e.g. mutation, reinfection)

Economic

Cuts in spending on durable goods (e.g., cars, appliances)

Extent of behavior shift (e.g., restaurant spend, gym activity)

Extent of travel reduction (% flight cancellations, travel bans)

Late payments/credit defaults

Stock market & volatility indexes

Purchasing managers index

Initial claims for unemployment

Bounce-back in economic activity in countries that were exposed early in pandemic

Early private and public sector actions during the pandemic to ensure economic restart

All estimates and assumptions follow USDA definitions of food insecurity

Food insecurity: A household-level economic and social condition of limited or uncertain access to adequate food¹

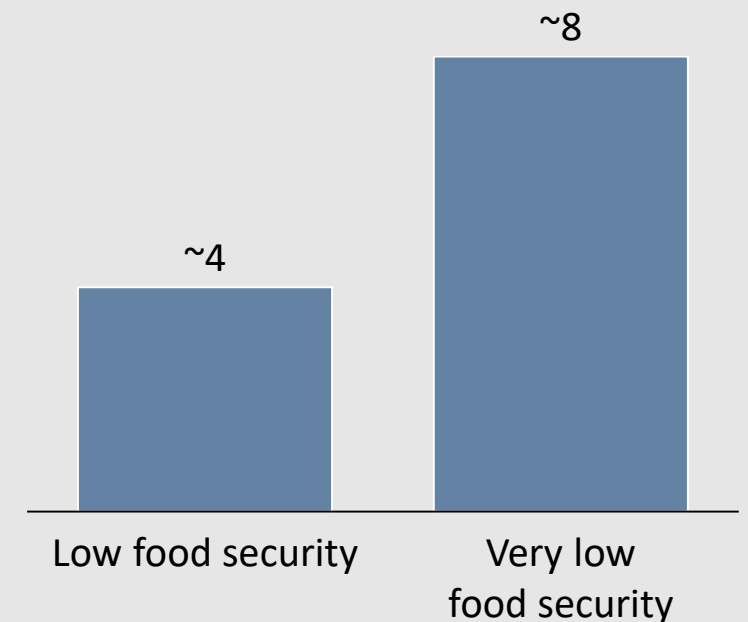
- **Very low food security:** Reports of multiple indications of disrupted eating patterns and reduced food intake
- **Low food security:** Reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake

Food security:

- **Marginal food security:** one or two reported indications—typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diets or food intake.
- **High food security:** no reported indications of food-access problems or limitations.

1. Food insecurity is assessed on an annual basis using the Current Population Survey. In this analysis, food insecurity is estimated based on other observable factors that are statistically related to food insecurity, including unemployment, poverty, and homeownership.

Equivalent number of weekly meals missed by range of food security, count



Based on Feeding America’s estimate of weekly budget shortfall by range of food insecurity and average cost per meal

Adjusting for potential undercounting by the Census suggests an additional food-insecure population of ~18,000 in Washington

Preliminary

Demographic group	Expected range of undercount	Total undercounted population in Washington	Undercounted food-insecure population in Washington
Black	2.4-3.7%	~8,500	~3,000
Hispanic / Latin-X identified	2.0-3.6%	~23,000	~7,500
Asian or Pacific Islander	0.5-1.4%	~18,000	~6,000
American Indian or Alaska Native	0.6-2.2%	~3,000	~1,300
Total for these groups:		~52,500	~18,000

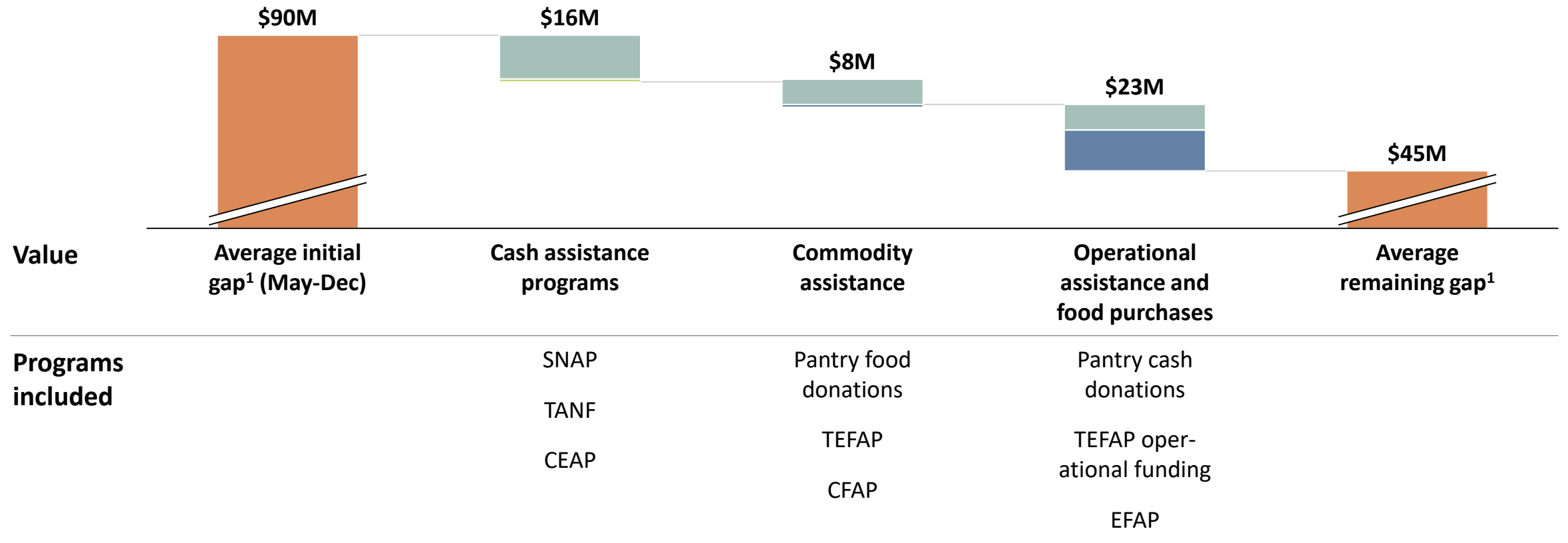
Key assumptions: Net population increases applied at the Census tract level. Food-insecure assumptions held constant for projected peak insecurity in 2020 by county

On an average basis, changes in supply in response to the crisis may address ~50% of demand

Based on monthly averages across remainder of year (May-Dec)

Federal State Private/ non-profit

Expected supply to resolve increased demand for food assistance during the COVID-19 crisis (\$M per month)



Some uncertainty around month-to-month timing of supply – averages represent current view across seven month span in 2020

1. In a Q4 peak scenario