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

>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

![Graph showing 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

- 10% unemployed: 3%
- 20% unemployed: 6%
- 30% unemployed: 9%

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

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...

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

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

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

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

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.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Increase</th>
<th>Associated Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment rate</td>
<td>1.00 percentage</td>
<td>0.52 percentage</td>
</tr>
<tr>
<td>Poverty rate</td>
<td>1.00 percentage</td>
<td>0.25 percentage</td>
</tr>
</tbody>
</table>

Source: Feeding America, "Map the Meal Gap 2019"
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

<table>
<thead>
<tr>
<th>Metrics with statistically significant impact on food security</th>
<th>Percentage point change in food insecurity associated with a 1 percentage point increase in given metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment rate</td>
<td>0.52</td>
</tr>
<tr>
<td>Poverty rate</td>
<td>0.25</td>
</tr>
<tr>
<td>Proportion of population that is African American</td>
<td>0.11</td>
</tr>
<tr>
<td>Proportion of population that is Hispanic</td>
<td>-0.15</td>
</tr>
<tr>
<td>Homeownership rate</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

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)

Source: Feeding America, “Map the Meal Gap 2019”, Gundersen & Ziliak, March 2018, “Food Insecurity Research in the United States: Where We Have Been and Where We Need to Go”
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

In WA, Hispanic people are particularly likely to hold jobs that are vulnerable during the COVID-19 crisis

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)

<table>
<thead>
<tr>
<th>Income Band</th>
<th>Jobs Vulnerable</th>
<th>Jobs Stable</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30K</td>
<td>0.6</td>
<td>69%</td>
</tr>
<tr>
<td>30-40K</td>
<td>0.8</td>
<td>47%</td>
</tr>
<tr>
<td>40-70K</td>
<td>1.2</td>
<td>68%</td>
</tr>
<tr>
<td>&gt;70K</td>
<td>0.8</td>
<td>81%</td>
</tr>
</tbody>
</table>

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.

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.

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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, %

<table>
<thead>
<tr>
<th>Year</th>
<th>Uncovered</th>
<th>Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>2002</td>
<td>52%</td>
<td>48%</td>
</tr>
<tr>
<td>2009</td>
<td>54%</td>
<td>46%</td>
</tr>
</tbody>
</table>

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

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

Duration of UI benefits in existing law

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

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

<table>
<thead>
<tr>
<th>Washington state population</th>
<th>Food secure</th>
<th>Baseline food-insecure population</th>
<th>Increase attributable to unemployment</th>
<th>Increase attributable to poverty</th>
<th>Total food-insecure population by range</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Yesterday&quot;: Baseline, pre-COVID-19</td>
<td>7.6</td>
<td>7.1</td>
<td>0.5</td>
<td>1.2</td>
<td>0.4</td>
</tr>
<tr>
<td>&quot;Today &amp; Tomorrow&quot;: COVID-19 (values based on December 2020)</td>
<td></td>
<td></td>
<td>1.3</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Response: Supply changes and remaining funding gap (rounded values based on December 2020)</td>
<td></td>
<td></td>
<td>$160M</td>
<td>$16M</td>
<td>$8M</td>
</tr>
<tr>
<td>Estimates are incremental to baseline (pre-COVID-19) levels of funding and assistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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

**Q4 Peak Scenario**

- **Demand (Q4 Peak)**
  - May 2020: $57M
  - Jun 2020: $58M
  - Jul 2020: $58M
  - Aug 2020: $106M
  - Sep 2020: $106M
  - Oct 2020: $106M
  - Nov 2020: $116M
  - Dec 2020: $116M

- **Cash assistance**
  - May 2020: $47M
  - Jun 2020: $57M
  - Jul 2020: $66M
  - Aug 2020: $106M
  - Sep 2020: $106M
  - Oct 2020: $106M
  - Nov 2020: $116M
  - Dec 2020: $116M

- **Private/nonprofit**
  - May 2020: $0
  - Jun 2020: $0
  - Jul 2020: $0
  - Aug 2020: $0
  - Sep 2020: $0
  - Oct 2020: $0
  - Nov 2020: $0
  - Dec 2020: $0

- **Federal**
  - May 2020: $0
  - Jun 2020: $0
  - Jul 2020: $0
  - Aug 2020: $0
  - Sep 2020: $0
  - Oct 2020: $0
  - Nov 2020: $0
  - Dec 2020: $0

- **State**
  - May 2020: $0
  - Jun 2020: $0
  - Jul 2020: $0
  - Aug 2020: $0
  - Sep 2020: $0
  - Oct 2020: $0
  - Nov 2020: $0
  - Dec 2020: $0

**Q2 Peak Scenario**

- **Demand (Q2 Peak)**
  - May 2020: $57M
  - Jun 2020: $58M
  - Jul 2020: $58M
  - Aug 2020: $66M
  - Sep 2020: $66M
  - Oct 2020: $66M
  - Nov 2020: $47M
  - Dec 2020: $47M

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  - Oct 2020: $0
  - Nov 2020: $0
  - Dec 2020: $0

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  - Jun 2020: $0
  - Jul 2020: $0
  - Aug 2020: $0
  - Sep 2020: $0
  - Oct 2020: $0
  - Nov 2020: $0
  - Dec 2020: $0

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.

Source: U.S. Census Bureau, WA Employment Security Department, Bureau of Labor Statistics, U.S. Dept. of Agriculture, Feeding America; please see detailed methodology on following pages. These estimates are preliminary and subject to revision.
Topics for today’s discussion

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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 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.

- **Population**
  - Source: U.S. Census Bureau
- **Jobs at risk (percentage points by sector)**
  - Source: American Community Survey
  - Jobs-at-risk by sector (McKinsey publication)
- **Employed individuals by sector**
  - Source: American Community Survey
- **Percentage of individuals receiving enhanced UI**
  - Source: Historical ratio of unemployment vs. insured unemployment (FRED)
- **Estimated effect of change in unemployment on rate of food insecurity**
  - Source: Feeding America (based on 2017 data)
- **Estimated change in poverty rate vs. baseline (percentage points)**
  - Source: Center on Poverty and Social Policy at Columbia University
- **Estimated effect of change in poverty rate on rate of food insecurity**
  - Source: Feeding America (based on 2017 data)
- **Growth in number of people with food insecurity**
  - Assumption: equal to average cost gap per person in the baseline
  - Source: American Community Survey
- **Average cost gap per incremental person with food insecurity**
  - Assumption: equal to average cost gap per person in the baseline
  - Source: Basic Food (SNAP), TANF, CEAP, WIC
- **Growth in food-related income support (new enrollees and change in benefits)**
  - Source: Basic Food (SNAP), TANF, CEAP, WIC
- **Growth in commodity assistance**
  - Source: CARES Act Stimulus, private/non-profit donations
- **Change in supply of operational assistance and direct food purchases (translated into $)**
  - Source: TEFAP, EFAP, private/non-profit donations

**Baseline demand gap ($)**

**Growth in demand gap ($)**

**Change in supply ($)**

**Total expected demand gap ($)**

**Total expected gap ($)**

As of May 21, 2020

*Source: Feeding America (based on 2017 data)*

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.

As of May 21, 2020
The dashboard can flexibly “drill down” to specific geographies within Washington, providing relevant details for local audiences.

As of May 21, 2020

Selecting a subset of Census tracts updates the estimated spending gap and graph of the number of people experiencing food insecurity.
The dashboard also provides Census tract-level demographic insights from the American Community Survey.

“Hovering” over a Census tract provides additional detail about potential local change in food insecurity, along with additional demographic insights.
There are some potential scenarios where food insecurity could deviate significantly from currently modelled scenarios

<table>
<thead>
<tr>
<th>Scenarios:</th>
<th>Likely impact on food insecurity:</th>
<th>Potential modelling solution:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virus resurgence</td>
<td></td>
<td>Create a new unemployment scenario that reflects a likely result of resurgence (Tab: “Modelling Scenarios”)</td>
</tr>
<tr>
<td>A second peak in COVID-19 case triggers a second shutdown, creating a second peak in unemployment, poverty, and food insecurity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discovery of a vaccine ahead of expected timeline</td>
<td>Decrease</td>
<td>Create a new unemployment scenario that reflects a likely result of renewed confidence in return-to-work (Tab: “Modelling Scenarios”)</td>
</tr>
<tr>
<td>Discovery of a vaccine on an accelerated timeline would greatly increase confidence in a return-to-work, blunting the spike in unemployment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant return-to-work with reduced hours</td>
<td>Increase</td>
<td>Assume a higher coefficient of impact of the effect of unemployment (Tab: “Modelling assumptions”), while accurately reflecting observed shape of unemployment (Tab: Modelling Scenarios)</td>
</tr>
<tr>
<td>If many people return to work on a reduced-hours basis and lose eligibility for enhanced unemployment insurance, expect food insecurity to rise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major strategy / policy change in stimulus for unemployment</td>
<td>?</td>
<td>Create a new unemployment scenario that reflects change in return-to-work patterns (Tab: “Modelling Scenarios”)</td>
</tr>
<tr>
<td>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)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

Donated supply
A1. VOLUME: Undersupply of shelf stable product
A2. MIX: Potential oversupply of produce and dairy
A3. FORMAT: Pack size mismatch for food-service donations

Purchased supply
A4. AVAILABILITY: Reduced availability of shelf-stable products from manufacturers due to ‘hoarding phase’
A5. COORDINATION: Multiple channels of negotiations across multiple stakeholders creates complexity

B1. LABOR: Reduced volunteer pools due to social distancing requirements
B2. TRANSPORT: Increased cost & reduced availability for transportation across supply chain
B3. FUNDS: Insufficient funding to meet increased need at some food banks
B4. STORAGE: Limited refrigeration capacity
B5. PACKING: Limited capability to handle alternative formats
B6. COORDINATION: Limited coordination across food banks
B7. SKILL GAP: Potential lack of exposure and experience to these extreme shocks in the system and unprecedented operational changes

C1. FOOTPRINT: Reduced number of locations
C2. LABOR: Reduced volunteer pools due to social distancing requirements
C3. STORAGE: Limited refrigeration capacity
C4. PACKING: Limited capability to handle alternative formats
C5. REGULATION: Uncertainty about whether waivers allowing flexible service models will be extended

D1. ACCESS: Increased health risk to clients for in-person visits, with potential for some clients to need assistance while self-isolating at home
D2. TRANSPORTATION: Reduced schedules (and potential health risk) for public transit, which many clients rely on to access food pantries and meal programs
D3. AWARENESS: Some people, especially people experiencing food insecurity for the first time, may have limited information about how to access assistance in a way that safely meets their needs

As of May 21, 2020
There are a variety of measures that could help address supply constraints; Northwest Harvest already implementing several of these measures:

**Supply**
- Increase usable donations
  - Dairy diversion direct to agencies / alternative agencies (e.g., QSR\(^1\))
  - Produce processing (e.g., flash freezing)
  - Intensify corporate outreach (e.g., grocery, CPG and monetary donations)

**Food Banks**
- Optimize coordination and allocation
  - Real-time data collection from community partners on supply and demand

**PANTRIES AND MEAL PROGRAMS**
- Create alternative sites for grocery and meal distribution
  - QSRs\(^1\) as pantries and meal programs (e.g., drive-through)
  - Convert restaurant spaces to function as meal programs (e.g., community kitchens)
  - Other foodservice as pantries (e.g., stadiums, schools)
  - Mobile meal programs (e.g., retrofit food trucks)

**Individual Clients**
- Get closer to clients
  - Cash and cash-equivalent transfers to clients (e.g., through prepaid cards activated for use at grocery stores)
  - Direct to client delivery (e.g., partnerships with online delivery platforms)
  - Proactive identification & delivery to high-risk populations (e.g., partner with healthcare payers)

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1. Quick Service Restaurants
Thank you!
Appendix – Supporting information
Scenarios for the Economic Impact of the COVID-19 Crisis

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

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)

Virus Spread & Public Health Response
Effectiveness of the public health response in controlling the spread and human impact of COVID-19

A  Virus contained, but sector damage; lower long-term trend growth
B  Virus contained; growth returns
C  Virus contained; strong growth rebound
D  Virus recurrence; slow long-term growth insufficient to deliver full recovery
E  Virus recurrence; slow long-term growth with muted world recovery
F  Virus recurrence; return to trend growth with strong world rebound
G  Pandemic escalation; prolonged downturn without economic recovery
H  Pandemic escalation; slow progression towards economic recovery
I  Pandemic escalation; delayed but full economic recovery

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)

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

Executive expectations about the shape of coronavirus crisis
Survey of 2,079 global executives; % of respondents

**Virus spread and public health response**

- **Rapid and effective control of virus spread**
  - A: Virus contained, but sector damage; lower long-term trend growth (15%)
  - B: Virus contained; growth returns (16%)
  - C: Virus contained; strong growth rebound (6%)

- **Effective response, but (regional) virus resurgence**
  - D: Virus recurrence; slow long-term growth insufficient to deliver full recovery (11%)
  - E: Virus recurrence; slow long-term growth with muted world recovery (31%)
  - F: Virus recurrence; return to trend growth with strong world rebound (6%)

- **Broad failure of public health interventions**
  - G: Pandemic escalation; prolonged downturn without economic recovery (3%)
  - H: Pandemic escalation; slow progression towards economic recovery (9%)
  - I: Pandemic escalation; delayed but full economic recovery (2%)

**Knock-on effects and economic policy response**

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

As of May 21, 2020

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

United States real GDP
% total draw-down from previous peak

Source: Historical Statistics of the United States Vol 3, Bureau of economic analysis; McKinsey team analysis, in partnership with Oxford Economics
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?

- 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

**Length of disruption**
How long could the disruption last?

- 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

**Shape of recovery**
What shape could recovery take?

- Effective integration of public health measures with economic activity (e.g. rapid testing as prerequisite for flying)
- Potential for different disease characteristics over time (e.g. mutation, reinfection)

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**Epidemiological Indicators**

- 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

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**Economic Indicators**

- Late payments/credit defaults
- Stock market & volatility indexes
- Purchasing managers index
- Initial claims for unemployment
- 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)
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 food\(^1\)

- **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.

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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.

Source: U.S. Department of Agriculture, Feeding America "Map the Meal Gap 2019"
Adjusting for potential undercounting by the Census suggests an additional food-insecure population of ~18,000 in Washington

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

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)

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

- **Average initial gap¹ (May-Dec)**  
  - $90M

- **Cash assistance programs**  
  - $16M
  - $8M

- **Commodity assistance**
  - $23M

- **Operational assistance and food purchases**
  - $45M

- **Average remaining gap¹**

<table>
<thead>
<tr>
<th>Programs included</th>
<th>SNAP</th>
<th>Pantry food donations</th>
<th>Pantry cash donations</th>
<th>TANF</th>
<th>TEFAP</th>
<th>TEFAP operational funding</th>
<th>CEAP</th>
<th>CFAP</th>
<th>EFAP</th>
</tr>
</thead>
</table>

1. In a Q4 peak scenario

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