

HOW DO FOOD DESERTS IMPACT LOCAL COMMUNITIES?



High School Lesson Plan on the ECONOMICS OF FOOD

Time Estimate: 120 minutes



FEDERAL RESERVE BANK of NEW YORK

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Compelling Question: How do food deserts impact local communities?

Supporting Question 1: What is a food desert?

Supporting Question 2: How do food deserts in rural and urban communities compare?

Supporting Question 3: What has been done to address food deserts?

Objectives

Students will

- define food deserts
- compare and contrast food access in rural and urban areas
- evaluate solutions to improve food access

Optional Extension Activity

- Create a podcast script evaluating the issues around lack of food access and potential solutions

Materials

- Handout 1: Measuring Food Access
- Handout 2: How do food deserts in rural and urban communities compare?
- Handout 3: What has been done to address food deserts?
- Case Studies

Resources

- Activists working to close "grocery gap" in Queens | CBS New York
<https://www.youtube.com/watch?v=9tmAJW-Sajc>
- A Family Faces Food Insecurity in America's Heartland | National Geographic
https://www.youtube.com/watch?v=uV2XCQZWf_g
- Characteristics and Influential Factors of Food Deserts (usda.gov) -
https://www.ers.usda.gov/webdocs/publications/45014/30940_err140.pdf
- Food Deserts and the Causes of Nutritional Inequality* | The Quarterly Journal of Economics | Oxford Academic (oup.com) -
<https://academic.oup.com/qje/article/134/4/1793/5492274?login=true>
- Food networks unite to provide food to Southeast Ohio communities | Southeast Ohio (southeastohiomagazine.com) - <https://southeastohiomagazine.com/2023/05/23/food-networks-unite-to-provide-food-to-southeast-ohio-communities-by-anna-birk/>



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Resources (cont'd)

- High School Fed Challenge | FEDERAL RESERVE BANK of NEW YORK (newyorkfed.org) - <https://www.newyorkfed.org/outreach-and-education/high-school/high-school-fed-challenge>
- Hunger & Poverty in the United States | Map the Meal Gap (feedingamerica.org) - <https://map.feedingamerica.org/>
- Is Poor Nutrition a Supply Problem or a Demand Problem? | Freakonomics - <https://freakonomics.com/podcast/is-poor-nutrition-a-supply-problem-or-a-demand-problem/>
- Measuring Access | The Food Access Research Atlas guide (usda.gov) - <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40&page=Measuring-Access>
- Millions of Americans still live in food deserts - https://www.youtube.com/watch?v=_lZwBMeogG8
- Offering Security in a Rural “Food Desert” | St. Louis Fed (stlouisfed.org) - <https://www.stlouisfed.org/open-vault/2022/dec/offering-security-rural-food-desert>
- The Food Access Research Atlas Guide (usda.gov) - <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40&page=Introduction>
- Urban farms bring relief to city food deserts (ny1.com) - <https://ny1.com/nyc/all-boroughs/the-big-appetite/2023/11/12/urban-farms-and-mobile-farm-stands-bring-relief-to-city-food-deserts>
- Why LA's tech community is trying to hack hunger (cnn.com) - <https://money.cnn.com/2017/04/19/technology/la-food-deserts/>
- Why Opening Grocery Stores Alone Doesn't Solve Food Deserts | ProPublica - <https://www.propublica.org/article/food-desert-grocery-store-cairo-illinois>

Answer Key

State Curriculum Standards



Supporting Question 1: What is a food desert?

Introduce the Lesson/Motivate Students

Ask students what they think eating healthy means. Students may answer *eating fruits and vegetables, not eating junk food, drinking water and not soda, etc.*

Then ask students if access to healthy food is necessary to healthy eating. Students should answer yes. Ask students to name some places where they can get healthy foods. Answers will vary, but can include *grocery stores, farmers markets, and food centers.*

State that not everyone has access to healthy foods, and that there are certain communities where people are unable to easily get fresh and healthy foods.

To introduce the term **food deserts**, ask students what they think about when they hear the word, “desert.” Write their responses on the board. Answers will vary but may include words such as *lack of water, dry, lack of life, etc.*

After students share their responses, state that just as deserts are characterized by a lack of water, vegetation, etc., the term **food deserts** refer to areas where people have limited access to a variety of healthy and affordable food.¹ Also state that those who do not have easy access to healthy and affordable food face **food insecurity**.²

Have students answer the following questions on Handout 1:

- You live in a small town where the closest grocery store is more than 10 miles away. However, convenience stores and dollar stores that also sell food are only 2 miles away. Where would you do most of your food shopping?
- You live in a city where you can easily walk to several convenience stores. The closest supermarket is 1.5 miles away and you don't have a car. Where would you do most of your food shopping?

Many students may answer that they would choose the closer convenience stores rather than traveling to a supermarket that might have more affordable healthy options. Explain that that is the situation people face who live in areas that are known as food deserts. People in these areas may need to travel too far to access healthy food consistently.

Tell students that they will learn more about food deserts. Have students follow along on their handout as you explain the following:

The U.S. Department of Agriculture (USDA) uses four measurements to map healthy food access. The term low income and low access (LILA) is used to designate areas with limited access to healthy food. (Note that the Economic Research Service from the USDA has stopped using the term “food desert” and instead uses “low-income and low-access” to designate areas with limited access to healthy food.)³

Low income is defined as an area where either: the poverty rate is 20% or greater, the area's median family income is less than or equal to 80% of the state-wide median family income, or the area is a metropolitan area and the median family income is less than or equal to 80% of the metropolitan area's median family income.

Low access to food stores is characterized by the number (at least 500) and share (at least 33%) of people at different distances from the nearest supermarket, supercenter, or grocery store, as well as the number of houses in the area without access to a vehicle that are more than 0.5 miles from one of those stores.

Go over the Four Measures to Map Food Access⁴ with the students (see next page).

¹ Characteristics and Influential Factors of Food Deserts (usda.gov) - https://www.ers.usda.gov/webdocs/publications/45014/30940_err140.pdf

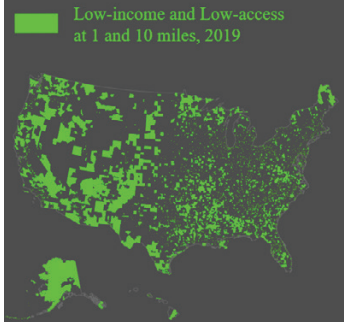

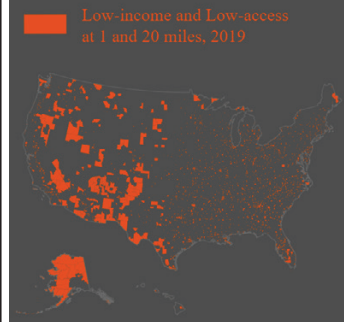

² The United States Department of Agriculture define food insecurity as a household unable to acquire adequate food because of insufficient money and other resources for food | USDA ERS - Measurement - <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/measurement/#:~:text=Food%20insecurity%3A%20A%20household%20was.in%20dietary%20quality%20and%20variety>

³ The Food Access Research Atlas guide (usda.gov) - <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4a-c3a3ed09137676fd40&page=Introduction>

⁴ Measuring Access | The Food Access Research Atlas guide (usda.gov) - <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40&page=Measuring-Access>



Four Measures to Map Food Access

| Low Income and Low Access at 1 and 10 miles | Low Income and Low Access at 0.5 and 10 miles | Low Income and Low Access at 1 and 20 miles | Low Income and Low Access using Vehicle Access and 20 miles |
|---|--|---|--|
| <p>Low income areas where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest food store.</p> | <p>Low income areas where a significant number or share of residents is more than 0.5 miles (urban) or 10 miles (rural) from the nearest food store.</p> | <p>Low income areas where a significant number or share of residents is more than 1 mile (urban) or 20 miles (rural) from the nearest food store.</p> | <p>Low income areas where 100 or more housing units do not have a vehicle and are more than 0.5 miles from the nearest food store, or a significant number or share of residents are more than 20 miles from the nearest food store.</p> |
|  <p>Low-income and Low-access at 1 and 10 miles, 2019</p> |  <p>Low-income and Low-access at 0.5 and 10 miles, 2019</p> |  <p>Low-income and Low-access at 1 and 20 miles, 2019</p> |  <p>Low-income and Low-vehicle Access, 2019</p> |

Source: <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40&page=Measuring-Access>

Emphasize that according to these measures, those areas where urban residents live more than 0.5 - 1 miles away from the nearest food store or where rural residents live more than 10 or 20 miles away from the nearest food store, are considered to be facing food insecurity and living in a food desert.

Now, show students a short video on food deserts:

Millions of Americans still live in food deserts | YouTube - https://www.youtube.com/watch?v=_lZwBMeogG8

After students watch the video, have students answer the last question on Handout 1 to demonstrate their understanding.



Supporting Question 2: How do food deserts in rural and urban communities compare?

Introduce the Lesson/Motivate Students

Start the class by having students discuss the terms “urban” and “rural” and answer either true or false for the following statements:

1. True/False. Rural areas are sparsely populated areas with fewer than 2,500 people. *True. Urban and rural are defined by the U.S. Census Bureau as such: Rural areas are sparsely populated areas with fewer than 2,500 people, and urban areas are areas with more than 2,500 people. A census tract [or area] is urban if the geographic centroid [or center] of the tract is in an area with more than 2,500 people; all other tracts are rural.*⁵
2. True/False. Poverty rates are higher in urban communities. *False. According to Feeding America’s report on “Child Hunger in Rural America”, 84% of U.S. counties with the highest percentage of food insecure children are rural. Nearly 90% of counties experiencing long-term poverty have entirely rural populations.*
3. True/False. Nine out of ten high food insecurity counties are rural. *True. Rural counties (those outside of major metropolitan areas) make up 62% of all counties but represent 87% of counties with high food insecurity rates.*⁶
4. True/False. Supermarkets and large grocery stores have higher prices than convenience stores. *False. Results from a study done by the United States Department of Agriculture have found when consumers shop at convenience stores, prices paid for similar goods are, on average, higher than at supermarkets.*⁷

Tell students that they will now watch two videos about food insecurity. The first video focuses on a family that faces food insecurity in a rural community: **A Family Faces Food Insecurity in America’s Heartland | National Geographic** (https://www.youtube.com/watch?v=uV2XCQZWf_g).

The second video, **Activists working to close “grocery gap” in Queens | CBS New York**, focuses on the lack of access to healthy food in Queens, NY (<https://www.youtube.com/watch?v=9tmAJW-Sajc>).

Before they watch the videos, have students go over the questions from **Handout 2** and instruct them to answer the questions based on the videos they will watch.

- What are the challenges presented in both videos? *Lack of access to healthy food, food insecurity.*
- What choices do you think people have to make when faced with those challenges? *They have to choose between paying bills and buying food, facing trade-offs, they have to choose between saving time to go to a local deli or bodega to buy food versus taking the time to go to supermarkets, they also might have to choose between buying cheaper, and nonhealthy foods versus buying more expensive, healthier foods. They have to decide whether to go to a food bank to ask for help or if they should try to get by with less.*
- What kind of long-term effects do you think people living in those communities will face due to food insecurity? *Poor health, chronic disease, etc.*
- Why do you think people in different communities, whether urban, or rural, face food insecurity? *They don’t have easy access to a store that sells healthy food; the price of buying healthy foods is too expensive so they choose cheaper options instead; people may not have time to buy and cook healthy foods, so they choose to go to convenience stores instead to buy unhealthy foods.*
- How do food deserts impact local communities? *People living in communities with food deserts worry about how to get nutritious food, and they also must make tough decisions about whether to buy healthy food or pay the bills. Food deserts can lead to obesity and other long-term health issues. Food deserts ultimately affect the well-being of communities because of the stress and negative health outcomes associated with lack of access and affordability to nutritious foods.*

Go over the responses to the questions with the class. Have students create a Venn diagram comparing food deserts in rural communities and urban communities based on their responses to these questions to be able to answer the supporting question, “How do food deserts in rural and urban communities compare?”

⁵ USDA ERS - Documentation - <https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation/#definitions>

⁶ Map the Meal Gap Reports | Feeding America - <https://www.feedingamerica.org/research/map-the-meal-gap/overall-executive-summary>

⁷ Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences (usda.gov) - https://www.ers.usda.gov/webdocs/publications/42711/12698_ap036fm_1_.pdf?v=2236.4



Now, for the next activity, students will look at data using the mapping tool from Feeding America: <https://map.feedingamerica.org>.⁸ Explain that this mapping tool provides estimates of local food insecurity and food costs.

Have students select their local community on the map and answer the questions on [Handout 2](#).

1. According to the website, what is food insecurity?
Food insecurity is the lack of access, at times, to enough food for an active, healthy life.
2. What is food insecurity associated with? *Numerous adverse social and health outcomes. Increasingly considered a critical public health issue.*
3. What are some key drivers of food insecurity?
Key drivers of food insecurity include unemployment, poverty, and income shocks, which can prevent adequate access to food.
4. What is the food insecurity rate in the United States?
13.5% (2022)
5. Now, select the state you live in and compare the food insecurity rate to the U.S. rate. What is your state's food insecurity rate? How does the rate of food insecurity in your state compare to the U.S. rate?
Answers will vary.
6. Select the county you live in and compare the food insecurity rate to your state's. What is your county's food insecurity rate? How does it compare to your state's? *Answers will vary.*
7. Were you surprised by the data? Why or why not?
Answers will vary.

Supporting Question 3: What has been done to address food deserts?

Introduce the Lesson/Motivate Students

After students have learned about food insecurity and explored the mapping tool, explain that they will now look at different case studies to read about how certain communities have addressed food insecurity. Pass out the case studies and [Handout 3](#) to the students. Afterward, present this scenario:

"You are on a new team put in place by the governor of New Estado (a fictional new state). There are several food desert concerns that have been raised by residents. The governor is asking you to evaluate how other states have addressed food insecurity concerns in their communities and present which strategies might work best for New Estado.

In groups, read the different case studies and answer the guided questions to share your findings. Then, create a presentation or write a briefing for the governor to recommend strategies you think will be most effective and why."

After the Presentation or Briefing

Ask students to reflect on what they have learned and how they would now answer the compelling question, "How do food deserts impact local communities?" Have them share their reflections in [Handout 3](#).

⁸Hunger & Poverty in the United States | Map the Meal Gap (feedingamerica.org) - <https://map.feedingamerica.org/>



Case Studies

Urban farms bring relief to city food deserts (ny1.com) - <https://ny1.com/nyc/all-boroughs/the-big-appetite/2023/11/12/urban-farms-and-mobile-farm-stands-bring-relief-to-city-food-deserts>

Offering Security in a Rural “Food Desert” | St. Louis Fed (stlouisfed.org) - <https://www.stlouisfed.org/open-vault/2022/dec/offering-security-rural-food-desert>

Why LA's tech community is trying to hack hunger (cnn.com) - <https://money.cnn.com/2017/04/19/technology/la-food-deserts/>

Food networks unite to provide food to Southeast Ohio communities – Southeast Ohio (southeastohiomagazine.com) - <https://southeastohiomagazine.com/2023/05/23/food-networks-unite-to-provide-food-to-southeast-ohio-communities-by-anna-birk/>

As an extension activity, have students research more about the economics of food and consider participating or supporting a school team in the [2024 – 2025 High School Fed Challenge](#).

Additional extension activity: Some food desert research focuses on poor nutrition as a supply issue and ease of access to healthy food. This Freakonomics podcast asks, “[Is Poor Nutrition a Supply Problem or a Demand Problem?](#)”⁹ and discusses [updated academic research](#)¹⁰ analyzing the role of demand. In addition, [this article from ProPublica](#)¹¹ also explores whether food deserts can be solved through supply by looking at a specific case study in Illinois. Ask students to listen to or read the podcast and/or the article, and then discuss whether they think lack of healthy food is a supply problem or a demand problem.

⁹ Is Poor Nutrition a Supply Problem or a Demand Problem? | Freakonomics -

<https://freakonomics.com/podcast/is-poor-nutrition-a-supply-problem-or-a-demand-problem/>

¹⁰ Food Deserts and the Causes of Nutritional Inequality* | The Quarterly Journal of Economics | Oxford Academic (oup.com) -

<https://academic.oup.com/qje/article/134/4/1793/5492274?login=true>

¹¹ Why Opening Grocery Stores Alone Doesn't Solve Food Deserts | ProPublica - <https://www.propublica.org/article/food-desert-grocery-store-cairo-illinois>



Materials

- [Handout 1: Measuring Food Access](#)
- [Handout 2: How do food deserts in rural and urban communities compare?](#)
- [Handout 3: What has been done to address food deserts?](#)

- [Case Study A: Urban farms and mobile farm stands bring relief to city food deserts](#)
- [Case Study B: Offering Security in a Rural “Food Desert”](#)
- [Case Study C: Why LA's tech community is trying to hack hunger](#)
- [Case Study D: Food networks unite to provide food to Southeast Ohio communities](#)



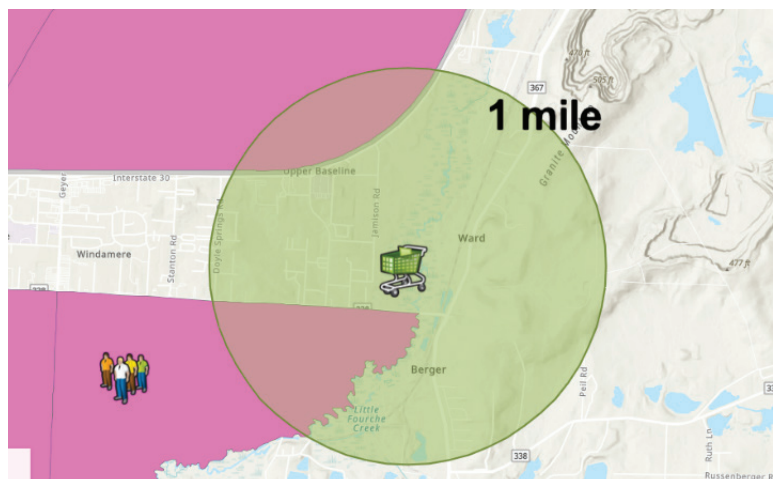
Handout 1: Measuring Food Access

What Would You Do?

1. You live in a small town where the closest grocery store is more than 10 miles away. However, convenience stores and dollar stores that also sell food are only 2 miles away. Where would you do most of your food shopping?
2. You live in a city where you can easily walk to several convenience stores. The closest supermarket is 1.5 miles away and you don't have a car. Where would you do most of your food shopping?

The U.S. Department of Agriculture (USDA) uses four measurements to map healthy food access. The term low income and low access (LILA) is used to designate areas with limited access to healthy food.

- **Low income** is defined as an area where either:
 - the poverty rate is 20% or greater
 - the median family income is less than or equal to 80% of the state-wide median family income
 - the area is in a metropolitan area and has a median family income less than or equal to 80% of the metropolitan area's median family income
- **Low access** is defined as an area where either:
 - the number (at least 500) and share (at least 33 percent) of people at different distances from the nearest supermarket, supercenter, or large grocery store
 - the number of housing units in the area without access to a vehicle and that are more than 0.5 miles from one of these stores

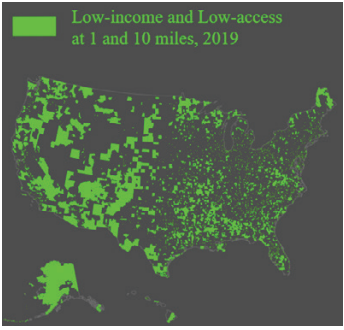
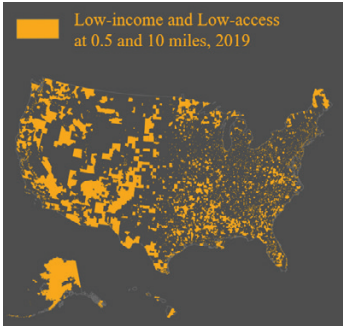
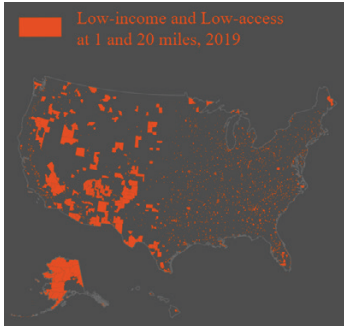



Source: <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40&page=Measuring-Access>



 **Handout 1: Measuring Food Access (cont'd)**


The USDA uses four measures of food access according to the chart below.

| Four Measures to Map Food Access | | | |
|--|---|--|---|
| Low Income and Low Access at 1 and 10 miles | Low Income and Low Access at 0.5 and 10 miles | Low Income and Low Access at 1 and 20 miles | Low Income and Low Access using Vehicle Access and 20 miles |
| Low income areas where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest food store. | Low income areas where a significant number or share of residents is more than 0.5 miles (urban) or 10 miles (rural) from the nearest food store. | Low income areas where a significant number or share of residents is more than 1 mile (urban) or 20 miles (rural) from the nearest food store. | Low income areas where 100 or more housing units do not have a vehicle and are more than 0.5 miles from the nearest food store, or a significant number or share of residents are more than 20 miles from the nearest food store. |
|  <p>Low-income and Low-access at 1 and 10 miles, 2019</p> |  <p>Low-income and Low-access at 0.5 and 10 miles, 2019</p> |  <p>Low-income and Low-access at 1 and 20 miles, 2019</p> |  <p>Low-income and Low-vehicle Access, 2019</p> |

Source: <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40&page=Measuring-Access>

Would you consider where you live to be a food desert? Why or why not?



 **Handout 2:** How do food deserts in rural and urban communities compare?

Instructions: Answer the following questions after watching the two videos:

A Family Faces Food Insecurity in America's Heartland | National Geographic

https://www.youtube.com/watch?v=uV2XCQZWf_g

Activists working to close "grocery gap" in Queens | CBS New York

<https://www.youtube.com/watch?v=9tmAJW-Sajc>

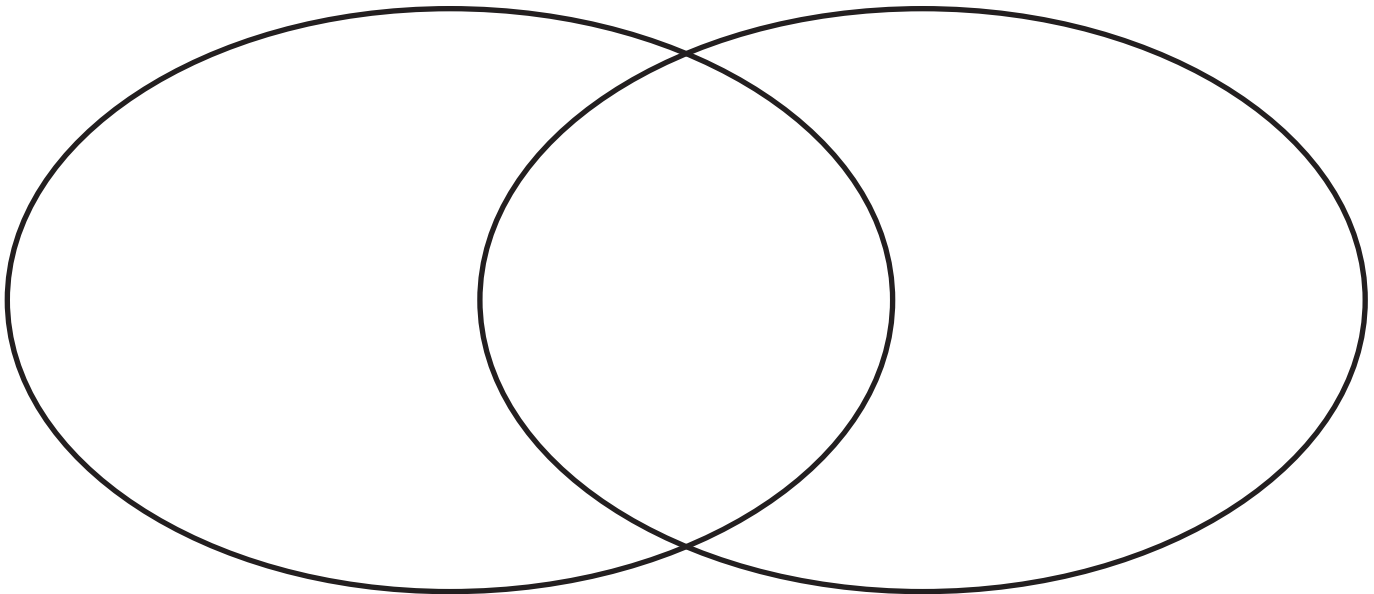
Video Questions


1. What are the challenges presented in both videos?
2. What choices do you think people have to make when faced with those challenges?
3. What kind of long-term effects do you think people living in those communities will face due to food insecurity?
4. Why do you think people in different communities, whether urban, or rural, face food insecurity?
5. How do food deserts impact local communities?

Fill out the Venn diagram below to compare food deserts in rural and urban communities.

Food Deserts in Rural Communities

Food Deserts in Urban Communities



 **Handout 2:** How do food deserts in rural and urban communities compare? (cont'd)


Instructions: Visit the Food Insecurity map from Feeding America website:

Hunger & Poverty in the United States | Map the Meal Gap - <https://map.feedingamerica.org/county/2022/overall/>

Scroll down to the section, “What is food insecurity and what does it look like in America?” and answer the following questions:

1. According to the website, what is food insecurity?
2. What is food insecurity associated with?
3. What are some key drivers of food insecurity?
4. What is the food insecurity rate in the United States?
5. Now, select the state you live in and compare the food insecurity rate to the U.S. rate. What is your state’s food insecurity rate? How does the rate of food insecurity in your state compare to the U.S. rate?
6. Select the county you live in and compare the food insecurity rate to your state’s. What is your county’s food insecurity rate? How does it compare to your state’s?
7. Were you surprised by the data? Why or why not?



 **Handout 3: What has been done to address food deserts?**


Instructions: Read the following case studies. With your group, answer the guided questions for each case study and use your notes to write either a briefing or create a presentation on which strategies might work best to address food desert concerns in New Estado.

Case Study A: Urban farms bring relief to city food deserts | NY1 -

<https://ny1.com/nyc/all-boroughs/the-big-appetite/2023/11/12/urban-farms-and-mobile-farm-stands-bring-relief-to-city-food-deserts>

| Case Study Guided Questions | Our Notes |
|--|------------------|
| Where and what is the challenge that the organization is trying to address? | |
| What is the organization and how is it trying to help solve or alleviate this challenge? | |
| What do you think the impact has been? | |




 **Handout 3:** What has been done to address food deserts? (cont'd)

Case Study B: Offering Security in a Rural “Food Desert” | St. Louis Fed - <https://www.stlouisfed.org/open-vault/2022/dec/offering-security-rural-food-desert>

| Case Study Guided Questions | Our Notes |
|--|------------------|
| Where and what is the challenge that the organization is trying to address? | |
| What is the organization and how is it trying to help solve or alleviate this challenge? | |
| What do you think the impact has been? | |




 **Handout 3:** What has been done to address food deserts? (cont'd)

Case Study C: Why LA's tech community is trying to hack hunger | CNNTech - <https://money.cnn.com/2017/04/19/technology/la-food-deserts/>

| Case Study Guided Questions | Our Notes |
|--|------------------|
| Where and what is the challenge that the organization is trying to address? | |
| What is the organization and how is it trying to help solve or alleviate this challenge? | |
| What do you think the impact has been? | |




 **Handout 3:** What has been done to address food deserts? (cont'd)

Case Study D: Food networks unite to provide food to Southeast Ohio communities | Southeast Ohio Magazine -

<https://southeastohiomagazine.com/2023/05/23/food-networks-unite-to-provide-food-to-southeast-ohio-communities-by-anna-birk/>

| Case Study Guided Questions | Our Notes |
|--|------------------|
| Where and what is the challenge that the organization is trying to address? | |
| What is the organization and how is it trying to help solve or alleviate this challenge? | |
| What do you think the impact has been? | |



 **Handout 3:** What has been done to address food deserts? (cont'd)

| Briefing for the Governor (Example template) | |
|---|--|
| Issue | |
| Proposed Solution | |
| Goals & Objectives | |
| Constraints & Assumptions | |
| Budget | |
| Success Criteria | |

| Reflection: How do food deserts impact local communities? |
|--|
| |



Case Study A: Urban farms and mobile farm stands bring relief to city food deserts

By Lori Chung | NY1 - November 13, 2023

Over the past 12 years, Tony Hillery and his team at Harlem Grown have transformed a vacant lot filled with junk on West 134th Street in Manhattan into a garden oasis.

It is part of a network of urban farms that feed the surrounding community.

“Now, collectively over our 14 sites, we grow just shy of 6,000 pounds of organic produce. We have free farmers markets every Wednesday and Saturday, but it’s complete with nutrition education, cooking demonstrations and recipe writing,” Hillery said.

What You Need To Know

Tony Hillery started Harlem Grown to help alleviate the myriad of issues facing kids in low-income communities, which are often described as food deserts or food swamps

GrowNYC also has a mission to bring healthy foods to food insecure communities, while keeping costs as low as possible for customers

Many New Yorkers experience food insecurity

Hillery started the nonprofit to support the children attending P.S. 175, which is located across the street.

Hillery remembers being troubled by the myriad of issues that children face in low-income communities, areas often described as food deserts — where access to affordable, healthy food is limited — or food swamps — where fast or junk food options far outnumber healthy alternatives.

“They’re not an accident. We know that,” Hillery said. “We have zoning for everything in this city and you’re telling me we can’t zone unhealthy, fatty, salty, sugary foods. So, the will is just not there and then it’s [also about] affordability.”

Another organization, GrowNYC, has a mission is to bring healthy foods to food insecure communities, while keeping costs as low as possible for customers.

“We see that people want to be healthy if the access is there and it’s equitable,” said Caroline Hiteshew, GrowNYC’s fresh food box program manager.

According to the organization, 60% of the farm stand transactions were paid with nutritional benefits like the

Supplemental Nutrition Assistance Program, amounting to \$4 million in redeemed benefits.

“So, we also offer incentive programs if people are using their SNAP or their EBT cards at any of our food access locations. They get extra money as well,” Hiteshew said.

Harlem Grown takes it even further

“Everything is free of charge. We do the work. They work for this. This is an urban farm where everybody chips in,” Hillery said. “We are a 501(c)(3), but we don’t operate like a charity. This is not about those poor little kids in Harlem.”

“It’s about what these kids can do and be, given equal access and opportunity,” Hillery added.



Case Study B: Offering Security in a Rural “Food Desert”

By Teresa Cheeks Wilson | St. Louis Fed - March 15, 2023

This post, originally published Dec. 14, 2022, has been updated with information about the expansion of grocery services and more recent food insecurity statistics.

Rural towns can be great places for families and “where everybody knows your name.” They are often described as easygoing communities where it’s safe to live and raise children. However, they can lack resources to assist families in creating an equitable quality of life.

One challenge that was worsening even before the COVID-19 pandemic has been food insecurity in rural communities. Food insecurity, defined as not having enough to eat “sometimes” or “often,” was roughly similar across the states in the Eighth Federal Reserve District,¹ with the exception of Mississippi, as of late December 2020. Six of the seven states in the Eighth District experienced food insecurity rates between 12% and 16%, while Mississippi faced rates at 19%.

As of late last year, food insecurity rates were more varied across the District states, although Mississippi’s rate was still the highest at nearly 20%, according to the U.S. Census Bureau’s Household Pulse Survey from Dec. 9-19, 2022. For the other six states, they ranged between 10.9%, in Illinois, and 16.3%, in Kentucky.

Different organizations in the St. Louis Fed’s District have come up with various ways to help address food insecurity. One example is the effort that started with an organization in Drew, Miss. Founded in 2009, We2gether Creating Change, a not-for-profit organization, sought to address that issue and others within its town. The mission of We2gether is “to be a change agent in the transformation of poor and low income communities from perceived places of poverty, low skills, and despair to places of prosperity, abundant skills, and hope,” according to the organization’s website.

A Collaborative Plans for Growth and Health

In 2015, We2gether led a group of community leaders called the Drew Collaborative to host meetings to engage community members in strategic planning. The collaborative was established by We2gether to be inclusive of the diverse group of individuals, views, opinions and ideas within the town. They focused on the future of Drew by identifying needs and challenges and prioritizing activities to advance the town’s growth and health.

Through its strategic planning, the Drew Collaborative agreed upon a shared vision, which states: “By 2026 the city of Drew will be an economically prosperous, growth oriented and unified model community with clean and excellent infrastructure, safe affordable housing for all income levels, B performing schools, and the residents will have easy access to nutritious and healthy food.”

What a Grocery Delivery Service Means to Residents

When its last grocery store closed in 2012, Drew became a “food desert,” an area with limited supplies of fresh, affordable foods. To tackle this issue, the Drew Collaborative launched a Grocery Online Ordering Distribution Service (GOODS) in 2021. Groceries can be ordered online and held for pickup at the former U.S. Army National Guard Armory in Drew. Residents can either pick up their groceries, or upon request, deliveries can be made to housebound customers.

Four people are seen through a glass door with 'GOODS' lettering on it. The people are standing around a counter with groceries on it in front of cooler cases.

Clients of the Grocery Online Ordering Distribution Service, or GOODS, can pick up their groceries at the former U.S. Army National Guard Armory in Drew, Miss., or order for delivery.

GOODS serves the communities of Drew, Ruleville, Parchman and Rome and added service to Shaw in February 2023. The Mississippi towns have no public transportation systems, and GOODS helps residents avoid having to use expensive ride-hailing services and provides the convenience of online ordering.

To understand the challenge of food insecurity and the impact of having the grocery delivery service, I interviewed Evelyn Smith, a nurse practitioner who lives in Drew, in November 2022. Earlier that year, Smith suffered an injury that limited her mobility. She shared how she and her clients cope with some of the inconveniences of living in the rural area, and how using GOODS helps them. (Responses were edited for length and clarity.)

How long have you lived in Drew? Is the community considered a farming community, where accessing food shouldn’t be an issue? (Note: Some food deserts are in areas where farming is or has been vital to the local economy.)

Drew, Miss., is my hometown and where I was born. I left Drew to attend college but moved back after finishing. It is a rural community where farming was the livelihood over

¹ The Eighth Federal Reserve District includes all of Arkansas, eastern Missouri, southern Illinois, southern Indiana, western Kentucky, western Tennessee and northern Mississippi.



Case Study B (cont'd)

30 years ago. It was not considered a town where farming would “feed the town.” Through the years, the [economy] has moved from farming to factory work.

Was this [lack of a grocery store or food access] one of the most pressing issues for you? (Note: Declining populations mean that a number of rural communities are without an adequate customer base for a local store. A certain population, on average 3,252 as of 2005, is needed to maintain a grocery store, according to a 2010 Center for Rural Affairs report.² Data from the 2010 census show the population in Drew was 1,927.)

When the grocery store and drugstore closed, it was like removing the “heart and the aorta” from the town. Drew has supported two grocery stores and a meat market in the past. I was really confused as to why the last grocery closed, because I felt it had enough business to stay viable. It has never been made clear why it closed. Every little town needs a grocery store and not a convenience store.

Since the grocery store closed, what other options have you had for accessing food?

A [local dollar store] took the place of the grocery store. They carry canned and frozen foods, but there are no fresh foods. There have been farmers markets in Drew, but it has not been consistent. My work schedule would conflict with the timing of when the farmers markets were held. I have driven five miles to Ruleville, Miss., for fresh vegetables, and they can be expensive per pound. Ruleville, a neighboring town, is thriving and has maintained its grocery store. It has always done so due to its tax base. Ruleville has had a local hospital and rural clinic for years, which have generated revenue for the town.

Did you experience any difficulty in purchasing what you needed? For example, was cost, transportation, availability, etc., an issue?

I have a car, but convenience becomes an issue when there is no grocer located within the community. When you have to shop outside of town, you have to make sure you get everything that is needed; there is no backup. The quality of foods found at [the local dollar store] can be an issue. You have to watch the expiration dates on the products.

Not having a local grocery store causes a hardship for those who work and have transportation, even more for those who don't work or [don't] have transportation. There are people who make their living transporting people to

Walmart or Cleveland [Miss.] and charge them at least \$20 per trip, or whatever the going rate is for that day. It's not cheap. It's a hardship on people with fixed incomes.

I had to modify my work schedule because I realized that during the first part of the month is when [clients] were taking care of their monthly business [around the arrival of checks and bill due dates]. Waiting for me to come for their visit was really hindering some of them from doing what they needed to do. So, I stopped seeing people the first through the fifth of the month. I would give them those first few days to try to do what they needed to do: go to the bank, [to the store, etc.]. I did not want to disrupt their routine.

Why does [the delivery service] matter to you or other citizens of Drew?

I've always used the Walmart curbside pickup service; that worked fine for me. Earlier this year [2022], I had a trauma that threw my world out of whack! Personally, I thought [the Drew Collaborative] was promoting another grocery store. It was not clear that it was a grocery delivery business. When I got a better understanding of the service, it really became a lifesaver to me. All I had to do was to continue online ordering, have it delivered to my house, and they would place it where I wanted them to. Before, I didn't really need [delivery], so I didn't pay that close attention to it. But the delivery is the great part of the service. I think it's needed. It would be great for a lot of people who are spending their money with local transportation services. As [I am] getting better, I'm not going to stop using it. I'm going to continue.

GOODS Is Expanding

GOODS has been so popular that the site in Shaw was added in February 2023. In Drew, the collaborative has started a community garden behind the GOODS site to increase residents' access to fresh food, such as vegetables.

Through GOODS and other initiatives implemented in Drew, “we are trying to create a healthy community that allows people to thrive,” stated Gloria Dickerson, founder and CEO of We2gether.

The Drew Collaborative and We2gether have taken a holistic approach to health, focusing not just on food access, but nutrition, housing, recreation and environmental cleanup. Their goal is to have a thriving community where people are healthy physically, emotionally, mentally and spiritually. For additional information, view the GOODS website.

²The report cited “Small Town Grocers in Iowa: What Does the Future Hold?” by Meghan O'Brien, published in 2008 by Iowa State University Extension and Outreach.



Case Study C: Why LA's tech community is trying to hack hunger

By Andrew Douglas | CNNTech - April 19, 2017

Hacking hunger: How to survive in a food desert

In today's day and age, the idea of a "food desert" is foreign to many people -- especially in the middle of a thriving metropolis like Los Angeles.

In some of LA's high-density regions, especially in the south and southeast parts of the city, there are hundreds of thousands of Angelenos who lack access to food that is both affordable and healthy. In these communities, the only available options for miles are often fast food restaurants or convenience stores. When this type of urban landscape lacks nutritional sustenance on a systemic scale, it is known as a food desert.

Food deserts are also often underserved by schools, parks, public transit and job opportunities.

Amidst these complex layers of adversity, creating a local food system with equitable access to healthy food is a social imperative. For years, organizations like the Los Angeles Food Policy Council and Hunger Action LA have worked to reform policy that increases access to healthy food.

This has included the "Good Food Purchasing Program" for schools and the "Market Match" program, which doubles the value of SNAP vouchers at a farmers market. Both of these organizations provide a model of how to tackle local food inequity.

More recently, LA's burgeoning tech sector has been working to pursue meaningful change and use tech to improve food access.

Hack For LA convenes coders, designers, entrepreneurs, government agencies and activists to solve the region's biggest civic challenges. It builds community, political will, and software. In that order. Their most recent win is Food Oasis LA (FOLA), a mapping platform similar to Yelp, which simplifies complex data, like where to find the nearest food bank, farmers market or community garden.

FOLA serves food seekers, policymakers and nonprofits by simplifying outreach efforts, streamlining food access, and consolidating vital data that indicate where healthy affordable food options are most needed.

As a representative and advocate, I find it both inspiring

and effective to team with civic hackers to confront persistent social deficits head-on. Is technology the end-all solution? Absolutely not -- but it's definitely part of it. By taking advantage of these 21st century tools, we're growing a more equitable landscape that will someday serve everyone in our great city -- regardless of their income or zip code.

Andrew Douglas is an areawide director for the Downtown Los Angeles Neighborhood Council and co-chairs the Los Angeles Food Policy Council Urban Agriculture Working Group.



Case Study D: Food networks unite to provide food to Southeast Ohio communities

By Anna Birk | Southeast Ohio Magazine - May 23, 2023

The Appalachian Accessible Food Network in Southeast Ohio unites to provide fresh produce to local communities.

Anyone who stumbles upon the Athens Community Center on a Saturday morning will be greeted by a bustling vendor-filled parking lot teeming with chatter, artisans and the smell of fresh produce wafting through the tents.

Though the Athens Farmer's Market may be a hub for farmers, it is not always feasible for community members to access the market, let alone to eat healthy, local foods.

One out of six people struggle with hunger in the Southeast Ohio region, according to Hocking-Athens-Perry Community Action (HAPCAP). For children, that margin rises to every one out of four.

"The food that is near us is crap," Tiffany Arnold, assistant professor of instruction in the College of Health Sciences and Professions at Ohio University, says. "It's processed food. It's high in fat, sodium and sugar. We just don't have actual, physical access to [healthy food] ... We can't get to it."

Lower-income communities tend to lack stores that sell healthy affordable foods. In rural areas, the issue is compounded due to the lack of physical access to those stores, with people often needing to drive further to buy food. This is what is known as a food desert.

To increase the access to fresh and local produce, several non-profit organizations have joined forces to help residents in southeastern Ohio.

The Appalachian Accessible Food Network (AAFN) is a collaborative partnership between Rural Action, Community Food Initiatives (CFI) and the Appalachian Center for Economic Networks (ACENet).

"Something that we all really excel at is supplementing each network partners' work in some way so that we can collectively work towards long term regional resilience and equitable access to healthy food here," Susie Huser, director of outreach at CFI, says.

Each of these partners contribute its own area of expertise and offer different resources to the community.

Each program within the AAFN's umbrella is incredibly beneficial; Rural Action's Chesterhill Produce Auction, CFI's

Veggie Van and the ACENet's Food Ventures Center are some of its most well-known.

Rural Action's Chesterhill Produce Auction

During peak summer months, the Chesterhill Produce Auction is an array of color as producers stock the space with fresh fruits, veggies, meats and other homemade products.

The people in attendance seem to rival the amount of produce as it is one of Rural Action's most successful social enterprises. Originally run out of a tent, the auction has now found a permanent space on Wagoner Road in Chesterhill.

Founded by Jean and Marvin Konkle in 2004, the auction got its start before being purchased by Rural Action in 2010.

"The Chesterhill Produce Auction ... is a place where producers can bulk, or not bulk, sell their food," Tessa Wieneke, food access partner's coordinator for ACENet, says.

This year, the auction will begin regular operation Mondays and Thursdays in May.

"It ebbs and flows with the season, so the markets at the very beginning and very end of the year are much lighter," Wieneke says. "But in August, the auction floor is just full. Sometimes the auction is an hour and sometimes it's four and a half."

The auction works as a connection between local farmers and buyers. Farmers from Southeast Ohio bring their produce, livestock, woodworkings and other wares to the auction. On the auction floor, buyers include restaurants, schools, universities and other AAFN services.

By hosting the auction, Rural Action helps stimulate the local economy, allowing produce and money to flow right back into the arms of residents.

Community Food Initiatives Veggie Van

Those who live in Southeast Ohio may have seen a bright white van driving through their neighborhoods, stopping in parks, libraries or markets to set up a mobile produce stand. The veggies pasted on the side of the van invite people to come and pay what they are able in exchange for local produce. This is the CFI's Veggie Van.

The Veggie Van is a mobile farmstand that travels throughout southeastern Ohio, bringing local produce to towns that may not always have the best access to groceries.



Case Study D (cont'd)

Manager Ivan Orquera says the Veggie Van initially began as part of a health study through the University of Buffalo. The study lasted only two years, ending with the season's close in 2022.

While no longer part of the study, Orquera explains they have extended their partnership into 2023.

Thanks to the Veggie Van, transportation obstacles that may have left residents in food deserts are eliminated.

"Last year ... the library system did a presentation that some of our CFI people participated in," Orquera says. "The towns that utilized the most social services were Nelsonville, Coolville and Glouster, which happen to be the towns that we serve."

Last year, Orquera took the Veggie Van to both Coolville and Glouster once a week with pop-ups in Nelsonville, Albany, Athens and Marietta.

"It might be as simple as, we go directly to them," Orquera says. "It's obvious that those towns in particular could utilize services like ours, and ours focuses particularly on food access."

The Appalachian Center for Economic Networks' Food Ventures Center

This space may look like just another warehouse from the outside. Walking into ACEnet's Food Venture Center, however, you will quickly be greeted with busy kitchens and the aroma of fresh food.

Local kitchens such as Crumb's Bakery and Casa Nueva operate alongside one another. Layered chatter floods the shared 14-oven kitchen space and assembly stations.

The Food Ventures Center is not only available to existing local businesses but to those who produce food within their home looking to scale up, otherwise referred to as Cottage Food Production Operations by the Ohio Department of Agriculture.

"We provide business development assistance. We provide that infrastructure, that space for folks to grow into," Adam Kody, food enterprise coordinator at ACEnet, says.

The beauty of the Food Ventures Center is that it offers a safe space for the 'privilege of failing,' a phrase that Kody first heard from the executive director of a kitchen in Boston.

"The 'privilege of failing' ... is to offer a space where someone can come in to live out their dream," Kody says. "Our space allows people to take that step ... and if it doesn't work out, their life isn't ruined."

The AAFN

The web of services the AAFN offers has proven successful in the Southeast Ohio region.

The Veggie Van distributed over 11,000 pounds of produce to over 1,300 people, according to CFI's 2022 annual report. In 2021, ACEnet celebrated its 25-year anniversary of the Food Ventures Center, and as of 2021, the center assisted over 400 food and farm entrepreneurs.

Although these organizations are incredibly beneficial to the community, there are still challenges.

"In the winter, there's just not any produce to be had," Arnold says. "We're dealing with seasonal produce ... in the winter, what do you do?"

During these months, the AAFN and other community organizations contribute what they can.

"Typically, we end up handing out more donated bread and eggs and sauces—pantry staples—than actual produce," Wieneke says. "We end up getting a lot of donated bread from Crumb's Bakery and from Jackie O's. That ends up being most of the food we give away."

The Chesterhill Produce Auction, Veggie Van and Food Ventures Center are only part of what the AAFN offers. Other services through AAFN partners include the Donation Station, Community Gardens and Farm to School services, all of which have flourished in the region.

While food insecurity in southeastern Ohio is ever-present, these organizations have made strides to give access to healthy, fresh foods that nourish and support local farmers and residents.

"Everyone deserves it. It's a basic human right—to have access to nourishing and delicious food," Huser says.



Handout 1: Measuring Food Access [Answer Key]

What Would You Do?

1. You live in a small town where the closest grocery store is more than 10 miles away. However, convenience stores and dollar stores that also sell food are only 2 miles away. Where would you do most of your food shopping?

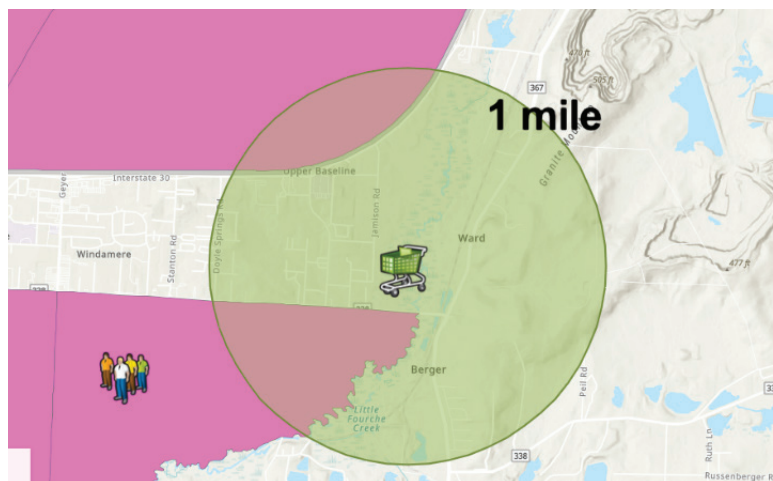
Answers will vary.

2. You live in a city where you can easily walk to several convenience stores. The closest supermarket is 1.5 miles away and you don't have a car. Where would you do most of your food shopping?

Answers will vary.


The U.S. Department of Agriculture (USDA) uses four measurements to map healthy food access. The term low income and low access (LILA) is used to designate areas with limited access to healthy food.

- **Low income** is defined as an area where either:
 - the poverty rate is 20% or greater
 - the median family income is less than or equal to 80% of the state-wide median family income
 - the area is in a metropolitan area and has a median family income less than or equal to 80% of the metropolitan area's median family income
- **Low access** is defined as an area where either:
 - the number (at least 500) and share (at least 33 percent) of people at different distances from the nearest supermarket, supercenter, or large grocery store
 - the number of housing units in the area without access to a vehicle and that are more than 0.5 miles from one of these stores

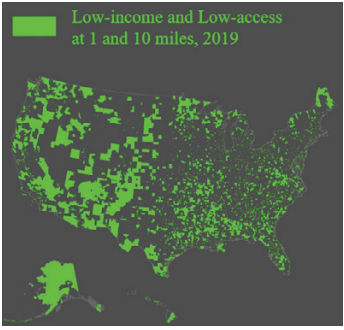
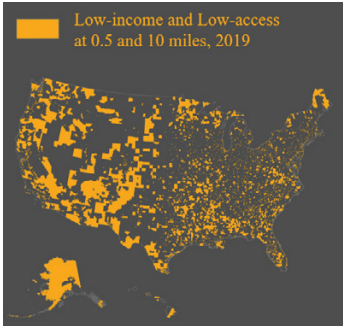
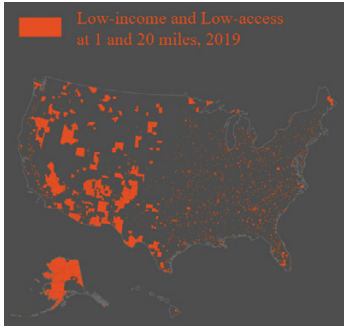



Source: <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40&page=Measuring-Access>



 **Handout 1: Measuring Food Access (cont'd) [Answer Key]**

The USDA uses four measures of food access according to the chart below.


| Four Measures to Map Food Access | | | |
|--|---|--|---|
| Low Income and Low Access at 1 and 10 miles | Low Income and Low Access at 0.5 and 10 miles | Low Income and Low Access at 1 and 20 miles | Low Income and Low Access using Vehicle Access and 20 miles |
| Low income areas where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest food store. | Low income areas where a significant number or share of residents is more than 0.5 miles (urban) or 10 miles (rural) from the nearest food store. | Low income areas where a significant number or share of residents is more than 1 mile (urban) or 20 miles (rural) from the nearest food store. | Low income areas where 100 or more housing units do not have a vehicle and are more than 0.5 miles from the nearest food store, or a significant number or share of residents are more than 20 miles from the nearest food store. |
|  <p>Low-income and Low-access at 1 and 10 miles, 2019</p> |  <p>Low-income and Low-access at 0.5 and 10 miles, 2019</p> |  <p>Low-income and Low-access at 1 and 20 miles, 2019</p> |  <p>Low-income and Low-vehicle Access, 2019</p> |

Source: <https://gisportal.ers.usda.gov/portal/apps/experiencebuilder/experience/?id=a53ebd7396cd4ac3a3ed09137676fd40&page=Measuring-Access>

Would you consider where you live to be a food desert? Why or why not?

Answers will vary but students should reference the chart to determine whether or not they live close to a food desert.



 **Handout 2: How do food deserts in rural and urban communities compare? [Answer Key]**

Instructions: Answer the following questions after watching the two videos:

A Family Faces Food Insecurity in America's Heartland | National Geographic

https://www.youtube.com/watch?v=uV2XCQZWf_g

Activists working to close "grocery gap" in Queens | CBS New York

<https://www.youtube.com/watch?v=9tmAJW-Sajc>

Video Questions

1. What are the challenges presented in both videos?

Lack of access to healthy food, food insecurity.

2. What choices do you think people have to make when faced with those challenges?

They have to choose between paying bills and buying food, facing trade-offs, they have to choose between saving time to go to a local deli or bodega to buy food versus taking the time to go to supermarkets, they also might have to choose between buying cheaper, and nonhealthy foods versus buying more expensive, healthier foods. They have to decide whether to go to a food bank to ask for help or if they should try to get by with less.

3. What kind of long-term effects do you think people living in those communities will face due to food insecurity?

Poor health, chronic disease, etc.

4. Why do you think people in different communities, whether urban, or rural, face food insecurity?

They don't have easy access to a store that sells healthy food; the price of buying healthy foods is too expensive so they choose cheaper options instead; people may not have time to buy and cook healthy foods, so they choose to go to convenience stores instead to buy unhealthy foods.

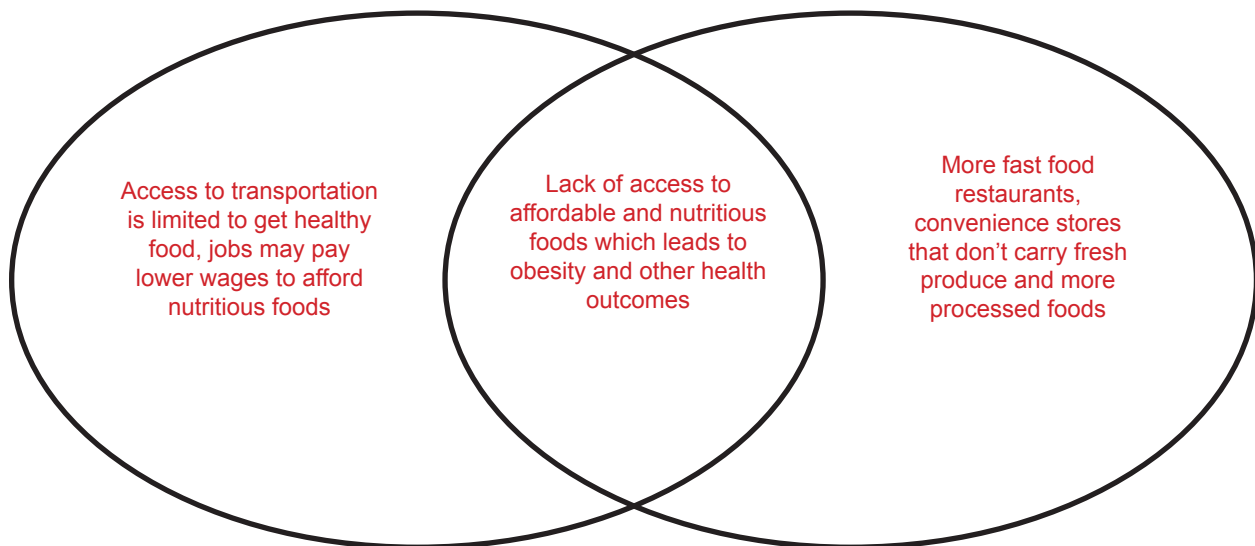
5. How do food deserts impact local communities?


People living in communities with food deserts worry about how to get nutritious food, and they also must make tough decisions about whether to buy healthy food or pay the bills. Food deserts can lead to obesity and other long-term health issues. Food deserts ultimately affect the well-being of communities because of the stress and negative health outcomes associated with lack of access and affordability to nutritious foods.

Fill out the Venn diagram below to compare food deserts in rural and urban communities.

Food Deserts in Rural Communities

Food Deserts in Urban Communities



 **Handout 2:** How do food deserts in rural and urban communities compare? (cont'd)
[Answer Key]

Instructions: Visit the Food Insecurity map from Feeding America website:

Hunger & Poverty in the United States | Map the Meal Gap - <https://map.feedingamerica.org/county/2022/overall/>

Scroll down to the section, “What is food insecurity and what does it look like in America?” and answer the following questions:

1. According to the website, what is food insecurity?

Food insecurity is the lack of access, at times, to enough food for an active, healthy life.

2. What is food insecurity associated with?

Numerous adverse social and health outcomes. Increasingly considered a critical public health issue.

3. What are some key drivers of food insecurity?

Key drivers of food insecurity include unemployment, poverty, and income shocks, which can prevent adequate access to food.

4. What is the food insecurity rate in the United States?

13.5% (2022)

5. Now, select the state you live in and compare the food insecurity rate to the U.S. rate. What is your state’s food insecurity rate? How does the rate of food insecurity in your state compare to the U.S. rate?

Answers will vary.


6. Select the county you live in and compare the food insecurity rate to your state’s. What is your county’s food insecurity rate? How does it compare to your state’s?

Answers will vary.

7. Were you surprised by the data? Why or why not?

Answers will vary.



 **Handout 3:** What has been done to address food deserts? [Answer Key]


Instructions: Read the following case studies. With your group, answer the guided questions for each case study and use your notes to write either a briefing or create a presentation on which strategies might work best to address food desert concerns in New Estado.

Case Study A: Urban farms bring relief to city food deserts | NY1 -

<https://ny1.com/nyc/all-boroughs/the-big-appetite/2023/11/12/urban-farms-and-mobile-farm-stands-bring-relief-to-city-food-deserts>

| Case Study Guided Questions | Our Notes |
|--|--|
| Where and what is the challenge that the organization is trying to address? | Children in Harlem had limited access to affordable, healthy food. |
| What is the organization and how is it trying to help solve or alleviate this challenge? | Harlem Grown and GrowNYC have farm stands where families in that area can get access to healthy food. |
| What do you think the impact has been? | More children and families can access healthy and nutritious foods, and as a result have gotten healthier. |




 **Handout 3:** What has been done to address food deserts? (cont'd) [Answer Key]

Case Study B: Offering Security in a Rural “Food Desert” | St. Louis Fed -

<https://www.stlouisfed.org/open-vault/2022/dec/offering-security-rural-food-desert>

| Case Study Guided Questions | Our Notes |
|--|---|
| Where and what is the challenge that the organization is trying to address? | People in rural areas, particularly in Mississippi, have faced high rates of food insecurity. In Drew, Mississippi, the last grocery store closed in 2012. |
| What is the organization and how is it trying to help solve or alleviate this challenge? | Drew Collaborative in Drew, Mississippi launched a Grocery Online Ordering Distribution Service (GOODS) for residents to either pick up groceries or have them delivered. This has been helpful because some towns have no public transportation systems. |
| What do you think the impact has been? | People have been able to save money not only on buying healthy food, but also on transportation. |




 **Handout 3:** What has been done to address food deserts? (cont'd) [Answer Key]

Case Study C: Why LA's tech community is trying to hack hunger | CNNTech -

<https://money.cnn.com/2017/04/19/technology/la-food-deserts/>

| Case Study Guided Questions | Our Notes |
|--|---|
| Where and what is the challenge that the organization is trying to address? | People living in Los Angeles's high-density regions do not have access to food that is affordable and healthy – the only options are either fast food restaurants or convenience stores. |
| What is the organization and how is it trying to help solve or alleviate this challenge? | Hack for LA in Los Angeles, CA convenes coders, designers, entrepreneurs, government agencies, and activists to address civic challenges. Hack for LA recently developed an app called Food Oasis LA (FOLA) to help people locate the nearest food bank, farmers market, or community garden. |
| What do you think the impact has been? | People living in dense areas in LA can learn where they can get free, healthy food that's closest to them by using an app or website, and so they are able to find resources and connections. |



 **Handout 3:** What has been done to address food deserts? (cont'd) [Answer Key]

Case Study D: Food networks unite to provide food to Southeast Ohio communities | Southeast Ohio Magazine -

<https://southeastohiomagazine.com/2023/05/23/food-networks-unite-to-provide-food-to-southeast-ohio-communities-by-anna-birk/>

| Case Study Guided Questions | Our Notes |
|--|--|
| Where and what is the challenge that the organization is trying to address? | People living in Southeast Ohio don't have physical access to stores that sell healthy affordable food. |
| What is the organization and how is it trying to help solve or alleviate this challenge? | The Appalachian Accessible Food Network (AAFN) collaborates with nonprofit organizations such as Rural Action, Community Food Initiatives, and the Appalachian Center for Economic Networks. There is a produce auction that connects local farmers and buyers. Rural Action hosts the auction to help stimulate the local economy, allowing produce and money to flow back to residents. There is also the Veggie Van that is a mobile farmstand that travels to towns without access to groceries. The Appalachian Center Food Venture Center provides business assistance and infrastructure for food entrepreneurs to interact directly with the community. This strengthens the local food economy. |
| What do you think the impact has been? | People in rural Ohio have more access to healthy, fresh and affordable foods. The services from AAFN have created a more cohesive community and has also helped create a more resilient food economy for Southeast Ohio. |



 **Handout 3:** What has been done to address food deserts? (cont'd) [Answer Key]

| Briefing for the Governor (Example template) | |
|---|--|
| Issue | Answers will vary but may include "People in New Estado face food insecurity" or "Food deserts are impacting the residents of New Estado." |
| Proposed Solution | Answers will vary. |
| Goals & Objectives | Answers will vary. |
| Constraints & Assumptions | Answers will vary. |
| Budget | Answers will vary. |
| Success Criteria | Answers will vary. |

| Reflection: How do food deserts impact local communities? |
|--|
| Answers will vary. |



State and National Curriculum Standards

College, Career, and Civic Readiness (C3) Standards

D2.Eco.1.9-12. Analyze how incentives influence choices that may result in policies with a range of costs and benefits for different groups.

D2.Eco.6.9-12. Generate possible explanations for a government role in markets when market inefficiencies exist.

D2.Geo.2.9-12. Use maps, satellite images, photographs, and other representations to explain relationships between the locations of places and regions and their political, cultural, and economic dynamics.

D2.Geo.3.9-12. Use geographic data to analyze variations in the spatial patterns of cultural and environmental characteristics at multiple scales.

CEE Voluntary National Economics Standards

Standard 1: Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.

Standard 2: Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Most choices involve doing a little more or a little less of something; few choices are all-or-nothing decisions.

Standard 3: Different methods can be used to allocate goods and services. People, acting individually or collectively through government, must choose which methods to use to allocate different kinds of goods and services.

Standard 4: People respond predictably to positive and negative incentives.

Standard 10: Institutions evolve in market economies to help individuals and groups accomplish their goals. Banks, labor unions, corporations, legal systems, and not-for-profit organizations are examples of important institutions. A different kind of institution, clearly defined and enforced property rights, is essential to a market economy.

New York State Social Studies Standards

12.E1a In making economic decisions in any role, individuals should consider the set of opportunities that they have, their resources (e.g., income and wealth), their preferences, and their ethics.

12.E2a Given that the resources of individuals (and societies) are limited, decisions as to what goods and services will be produced and to whom to sell one's resources are driven by numerous factors, including a desire to derive the maximum benefit from and thus the most efficient allocation of those resources.

12.E2b The choices of buyers and sellers in the marketplace determine supply and demand, market prices, allocation of scarce resources, and the goods and services that are produced. In a perfect world, consumers influence product availability and price through their purchasing power in the product market. Product market supply and demand determine product availability and pricing.

12.E3e The degree to which economic inequality reflects social, political, or economic injustices versus individual choices is hotly debated. The role that the government should play in decreasing this gap, including the variety of government programs designed to combat poverty, is debated as well.

New Jersey

6.2.12.EconGE.6.a: Evaluate efforts of governmental, non-governmental, and international organizations to address economic imbalances, social inequalities, climate change, health and/or illiteracy.

Connecticut

D2.Eco.11.9-12: Use economic indicators to analyze the current and future state of the economy.

D4.7.9-12: Assess options for individual and collective action to address local, regional, and global problems by engaging in self-reflection, strategy identification, and complex causal reasoning.

