

Webinar Transcript
Data Training Webinar: Updated Food Access Research Atlas
August 20, 2026

Ashley Murdie: Good afternoon, everyone. I'm Ashley, and I'll be your host for today's data training webinar. On behalf of USDA's Economic Research Service, welcome and thank you for joining us. Today's session will walk through recent updates made to the Food Access Research Atlas. Before we get started though, just a quick note that today's webinar is being recorded and will be posted on the ERS website for future reference. If you have any questions, please feel free to submit them using the Q&A feature at the bottom of your screen, and we'll try to answer a few after the presentation. If we don't get to yours today, please email us. We'd be happy to follow up. Now, it's my pleasure to introduce today's speaker, ERS Economist Alana Rhone from our Food Economics Division. Alana, I'll turn it over to you.

Alana Rhone: Thanks, Ashley. And good afternoon, everyone! Thank you for joining us today. Again, I am Alana Rhone, and I am an agricultural economist with USDA's Economic Research Service. Today, I have the great privilege of presenting on Understanding the SNAP-Authorized Retailer Access Map in the Food Access Research Atlas. The Food Access Research Atlas now has a new mapping tool, the SNAP-Authorized Retailer Access Map.

Here are the objectives for today's webinar. First, we'll learn briefly about the Food Access Research Atlas and the SNAP-Authorized Retailer Access Map. And then, I'll explain how this SNAP-Authorized Retailer Access Map fits within the broader Atlas. Today's session though, will focus specifically on the SNAP-Authorized Retailer Access Map. From there, we'll go over what's new in the mapping tool, such as new features, new data, and updates, followed by a brief demonstration on how to use the mapping tool. So, let's get started.

We released our first version of the Food Access Research Atlas in 2011. So, it has been around for several years. Before we take a look at the SNAP Retailer Access Map, let's start with the broader tool that it is a part of. And that is the Atlas. The Atlas is a public, interactive resource that helps users explore food access at the census tract level. It now includes two different mapping tools. The first is the Supplemental Nutrition Assistance Program—also known as SNAP—Authorized Retailer Access Map, which we're focusing on today. This mapping tool uses 2025 SNAP-authorized retailer data. SNAP itself provides food benefits to low-income families to help them afford nutritious food that is essential for health and well-being. Because SNAP benefits can only be used at authorized stores, these SNAP retailers can play a role in ensuring access to healthy and affordable food. They range from small, local grocers and dollar stores, all the way up to large supermarket chains. And the second mapping tool in the atlas is the Large Retailer Access Map, which looks at access to only large food retailers, such as super centers, supermarkets, and large grocery stores. And this mapping tool currently uses 2019 large retailer data. The Large Retailer Access Map is planned to be updated winter 2026-2027, and we plan to hold a separate webinar for that release when available. The Food Access Research Atlas is designed to help users understand where distance, income, and vehicle access barriers may make it harder for individuals and households to reach food retailers. With the atlas, you can create maps, compare indicators, view access estimates for different populations, and also download census tract level data. All data included in the Food Access Research Atlas are aggregated into an Excel spreadsheet, as well as a machine-readable CSV format for easy download.

Now, let's shift our focus to talk about the SNAP-Authorized Retailer Access Map, which, as I mentioned, is the main focus of today's webinar. The SNAP-Authorized Retailer Access Map is a brand-new mapping tool that shows access to SNAP-authorized retailers using two distance measures: a straight-line measure and a new driving distance measure based on the road network. The mapping tool also includes detailed population information, such as access estimates for age, race and ethnicity, SNAP households, and individuals who are veterans, among others. The atlas... and the atlas and the SNAP-Authorized Retailer Access Map can be used to identify neighborhoods where long travel distances, income, and limited vehicle access may contribute to SNAP... to low SNAP-authorized retailer access.

Now, let's walk through what's in the new mapping tool. Here at the Economic Research Service, we prioritize customer service. And we listened to the feedback we received from our users. So, there are a few things that are featured in this release. The mapping tool has a more modern interface, and yes, it is mobile-friendly, so you can explore measures on the go. The SNAP-Authorized Retailer Access Map also incorporates 2025 SNAP-authorized retailer data. And the SNAP mapping tool also uses 2020 census tract boundaries.

The new mapping tool includes additional population indicators including estimates for individuals who are veterans for U.S. Armed Forces. This helps highlight where veteran households may experience food access challenges. Understanding food access among veterans can provide useful information for maintaining a healthy veteran population, since access to a food store can be essential to maintaining well-being. Another new feature is the estimates for a tract share of tribal area. This addition helps users understand food store access patterns within the geographic context of tribal lands. It allows us to see, for example, whether a tract is largely within a tribal area, and whether individuals and households there may face longer distances or limited vehicle access. So, this gives users more nuance when exploring food access in tribal communities. And one of the biggest additions is the new driving distance measure. People don't travel in straight lines. They shop along the actual road networks they use every day. Previously, the Food Access Research Atlas only used straight line distance, essentially as the crow flies, or how a bird flies. So, this is just a straight line from point A to point B. But straight-line distance can sometimes ignore the reality of how people actually travel. Bridges and highways can create indirect paths, and in some rural areas, the nearest food store may require driving around rivers, lakes, or limited street networks. So, adding the driving distance measure, it gives us a more realistic view of accessibility, and helps uncover neighborhoods where SNAP-authorized retailers may seem close on a map, but are actually pretty far once you consider real travel paths. These new measures make it possible to identify more neighborhoods where distance, income, and vehicle access, among other barriers, stack together.

Researching geographic access to SNAP-authorized stores matters, because SNAP benefits can only be used at certain stores. So, where those stores are located shapes how easily people can buy food. For many individuals in households, especially those with limited vehicle access, distance really matters. Longer travel times can mean fewer shopping trips, higher costs to get to the store, and less flexibility in choosing where to shop. And in some rural neighborhoods, the closest SNAP-authorized store might be several miles away, which can make it harder to reach affordable food options. And that can sometimes be true for low-income neighborhoods, households without a vehicle, and for seniors.

The SNAP-Authorized Retailer Access Map can serve a wide range of audiences across the country. The mapping tool can be used to identify a neighborhood's ability to access a SNAP-authorized retailer. Government agencies can use the mapping tool to identify where access to SNAP-authorized retailers may be limited. As mentioned before, because SNAP benefits can only be used at authorized stores, understanding where and how many people may face limited access can help highlight areas for further exploration. Community planners can also use the mapping tool to help inform local development and food access strategies. The new driving distance measure is especially useful here, because it shows real travel routes along roads, not just straight-line distance. So, that can help planners see where households or individuals may face longer trips to buy food. Researchers and academics can use the mapping tool to study how SNAP-retailer access varies across neighborhoods in different demographics. And journalists can use the mapping tool to inform public reporting. And the mapping tool isn't just for policymakers or researchers. The general public can use the tool to explore and better understand food access in their own communities.

So now, let's go through our SNAP-authorized retailer access measures. SNAP-authorized retailer access is measured at the census tract level, which you can kind of think of it being similar to the size of the neighborhood that you live in. So, there are two components to ERS's Census Tract SNAP-Authorized Retailer Access Measures: low income and low access. So, there's a subset of all census tracts that are low income, and another subset that is low access. And so, low income and low access status of a census tract are measured separately with the overlap of tracts that are both low income and low access come together, comprising... comprising low-income and low-access tracts. So, the intersection of these two sets of tracts makes low-income and low-access tracts. And we have these both for the straight-line distance and driving distance measure in the new mapping tool.

The low-income component is defined using poverty rates and median family income within a census tract. And this definition is consistent with the definition that is used by the U.S. Department of Treasury's New Markets Tax Credit Program. Low access status of a tract is measured four different ways. Three of these measures are based solely on how far people in the census tract are from the nearest SNAP-authorized retailer. These three different measures vary by the distance marker used. Half mile and one mile for urban areas. And 10 and 20 miles for rural areas. For example, the low access census tract at the 1 and 10 miles are census tracts where a significant number or share of the population is more than 1 mile from the nearest SNAP-authorized retailer if in an urban area, or more than 10 miles if in a rural area. And the low access at the half mile and 10 miles, and low access at 1 mile and 20 miles, follow that same pattern. A census tract is classified as urban if its center point falls within an urban area boundary. Tracts that are located outside these boundaries are considered rural. And information on the location of SNAP-authorized retailers is obtained from a directory of stores authorized to accept SNAP benefits.

And the fourth measure considers vehicle access. And it's a little bit slightly more complex. It incorporates whether households have a vehicle directly into the definition of low access. Vehicle availability is an important factor in how easily a household can reach a SNAP-authorized retailer, since most households in the U.S. drive their own vehicle for regular food shopping. So, this measure has two conceptual pieces. First, some households do not have access to a vehicle and live far from a SNAP-authorized retailer, which can create barriers to getting SNAP-approved foods. Second, some households live so far from a retailer that even with a vehicle, the time and

transportation costs make it difficult to shop for SNAP-approved groceries on a regular basis. And so, we refer to this measure as the low access using vehicle in 20 miles. Under these definitions, census tracts are considered low access if they have a significant number of households that do not have access to a vehicle and live far from the nearest SNAP-authorized retailer or if a significant number or share of the population live more than 20 miles from the nearest SNAP-authorized retailer.

So, let's have an interesting fact. According to the SNAP-Authorized Retailer Access Map, using estimates from the '20 to 2024 American Community Survey 5-year estimates, there are about 15.6 million SNAP households nationwide. This chart that is showing on this slide breaks that total down by distance to the nearest SNAP-Authorized retailer. The x-axis shows four distance thresholds: greater than half miles, greater than 1 mile, greater than 10 miles, and greater than 20 miles from the nearest SNAP-authorized retailer. The y-axis shows the total number of SNAP-receiving households who fall into each of these categories. So, here's what the data shows. In 2025, about 7.2 million U.S. SNAP-receiving households live more than half a mile from the nearest SNAP-authorized retailer. And that nearly 3.9 million households live more than 1 mile away. A much smaller number, about 92,000 households, lived more than 10 miles away from a SNAP-authorized retailer, and roughly 18,000 households lived more than 20 miles away from the nearest retailer. You'll also notice a small zoomed-in inset box in the corner of this chart. So, this was just added because the values for the 10 mile and 20-mile categories are so much smaller compared to the millions of households in the shorter distance categories. So, I know you're probably wondering now, why is this such an interesting fact? Well, these numbers come from one of the new estimates available in the SNAP-Authorized Retailer Access Map. This mapping tool helps us understand how many SNAP households may need to travel longer distances to reach a SNAP-Authorized retailer. Exploring these distance-based measures can help highlight places where longer travel distances may overlap with other access considerations, such as income or vehicle availability. This kind of view can help users better understand where there may be access gaps, where they could exist, and where further exploration may be useful. All of these estimates are available in the mapping tool and in the Download Data file.

To access the Food Access Research Atlas, you can search for the mapping atlas in your preferred search engine or go directly to www.ers.usda.gov. You can stroll down, and you will see a link for the Food Access Research Atlas, and it will take you directly to that page.

When you land on the Food Access Research Atlas overview page, this is what you'll see. On the left side, you have the main navigation tabs, which are Mapping Tools, Documentation, Update and Revision History, and Download the Data. Let's walk through these sections. Mapping tools. If you click on Mapping Tools, it will open the page where you can access the two mapping applications: the SNAP Retailer Access Map, and the Large Retailer Access Map. The Documentation tab brings you to all the supporting materials for the atlas. This includes the reference guides, which has the definitions and information on data sources for each indicator, as well as the technical methods used to construct the measures and indicators. The Update and Revision History section summarizes any updates and revisions made to the atlas. And finally, the Download the Data tab is where users can access the current dataset, along with previous versions of the data and documentation files. Everything is available in Excel and machine-readable formats. So, this sidebar gives you everything that you need. You have the tools, documentation, updates and data downloads—things that are needed to navigate and understand the atlas.

On this slide, I am showing what the SNAP-Authorized Retailer Access Map Data Download Excel file looks like when you download it. When you open the spreadsheet, you'll see each census tract, Column A, listed along with the flags we calculate based on driving distance accessibility. The first highlighted row here is a census tract in Anchorage Municipality, Alaska. You'll notice that this track has a zero flag for low income and low access when we measure accessibility at the 1 and 10 miles. This is in column E, using the driving distance. It also has a zero flag for low income and low access when considering accessibility at half mile and 10 miles, which is in column F. A zero means it does not meet the criteria for low income and low access for those distance measures. Right below it, in the same municipality, there's another census tract that has 1 in both of these columns. That means this track meets the criteria for being low income and low access at those same distance thresholds. So, this is showing how two census tracts, even within the same municipality, can differ based on their road network, income characteristics, or distance to the nearest SNAP-authorized retailer.

When you click on the new mapping tool, this is the first page you'll see. This is a general map of the United States that opens up. And you'll notice several tools and panels around the map that help you explore food access measures. Before we dive into the map features, let's start with the user guide. It's a great resource if you want to revisit anything after the webinar or if you forget something I say, which I promise not to take personally. The guide includes a helpful tutorial that walks you through the tool step by step. And it's at the top right side of the map. Next, we have the map layers panel, inbox, which is right next to the user guide. You can show or hide this box by clicking this icon in the upper right corner. And this panel is open when you first entered... when you first entered the app by default. And it organizes all the layers into expandable layers. Just click the arrow next to any layer group to open it up. That lets you see the individual measures, such as low income and low access, by each distance measure, and you can check or uncheck them to control what appears on the map. And the legend will adjust accordingly. The map layers are grouped into four categories: Straight Line Distance Variables; Driving Distance Variables; General Tract Characteristics, such as if it is a low-income tract or where a significant share of the population live in group quarters, such as dormitories or military bases; and then Boundaries. You can now outline the map using state and county boundaries. By default, all four groups are turned on, so you can see census tracts shaded according to the food access measures selected. The layer list can be collapsed using the arrows, or closed with the X. In the upper left corner of the map are the basic navigation tools. These include zooming in and out, and you can move around the map by clicking and dragging, or you can reset the view using the home icon. Now, let's look at the search tool. You can type in any address, place, or even a census tract number, and the map will zoom right to that location and drop a temporary point. To give you an example of how the SNAP Retailer Access Map tools work together, in the previous slide, we saw how the data download includes the census tract numbers. You can copy that specific census tract number, paste it into the search bar on the mapping tool, and the map will take you straight to that spot. It's a quick way to connect the download the data file with the mapping application. Selecting the print option opens a box where you can choose a print layout and print different maps. You can also add a custom title for your map. If you need to jump to a particular region, the bookmark tool gives quick access to Alaska, Hawaii or the continental U.S. And the base map selector lets you switch to different background maps, depending on your preference. And the legend shows the colors and symbols used on the map and explains what each measure represents. By default, the legend is already open on the left side of the screen when you enter the tool. You'll automatically see the measures for low income and low access at the 1- and 10-miles measure for both straight

line distance and driving distance. One thing that I must note is for you to keep in mind, is that shading from different layers can overlap. When multiple layers are turned on at the same time, the colors may blend or look slightly different from how they appear in the legend by themselves. And to contract the legend and hide it from view, click the pullout to collapse the legend. This minimizes its display.

Now that we've looked at the map tools and the different layers, I want to show you what happens when you click directly on the map. Whenever you click on a census tract, a pop-up box appears. This gives you a quick snapshot of that specific area. At the top you'll see the census tract number, along with the county and state where the track is located. The pop-up also tells you whether the track is classified as urban or rural, and how many SNAP-authorized retailers are in that specific county. And when you scroll down in this box, you'll find additional details for that specific track. Things like whether the track meets the low income and low access criteria, population and household information, and low access demographic information for children and seniors, race and ethnicity, among other information can be found in that pop-up box. So, this pop-up box helps explain why a track appears the way it does on the map, whether it's filled with color and are shown with one of the symbol patterns, like the driving distance variables. This is a really helpful tool when you're exploring an area, because it gives context to what you're seeing visually, and helps you understand the characteristics of each track. In the pop-up box, you'll notice a small button with four dots. If you click that, you can export this detailed information for this specific census tract. So, within the mapping application, you can download specific information for that tract here. Or we also give you the option to download all census tract information for all of the United States, and the data deliverable, they can be found in the data download tab on the ERS website.

To show how these layers and measures work together, let's walk through a quick example together. Here I've used the search tool to look up Atlanta, Georgia. Atlanta is a great illustration because it's a large metropolitan area with a mix of dense neighborhoods and more spread-out suburban communities. That makes it a helpful place to demonstrate how different distance measures can show different patterns of food access. Once the... once the mapping tools zoom in, you'll see tracks that are shaded. For the straight-line measure, low income and low access at the 1 in 10 miles. As mentioned before, straight line distance simply measures distance as the crow flies. So, on the map some areas may appear close to stores, even if getting there in real life requires a longer or a more complicated trip. Now, I'm going to turn on the driving distance at the low income and low access at the 1 in 10 miles measure. On the map, these appear with diagonal line patterns. As you see, once those are added, there are some differences compared with the straight-line view. Some neighborhoods meet both the straight line and driving distance low-income and low-access criteria. And those areas will show both the solid shading and the diagonal lines, so you'll see the two patterns overlapping as shown on the map here. In other places, you might notice more tracks appearing only under the driving distance measure. That's because driving distance actually uses the road network, so things like highways, ramps, and indirect routes can make the travel distance longer than a straight line 'as the crow flies' distance. And in a metro area like Atlanta, where neighborhoods connect through busy roads and winding suburban streets, that difference between straight-line distance and driving distance becomes even easier to see.

Here, we're looking at a map with two straight line measures turned on: low income and low access at the 1 in 10 miles measure, shown in the darker purple; and the low income and low

vehicle access measure, shown in light blue. The navy area... areas... are where both conditions overlap. So, these tracks meet the straight-line low-income and low-access criteria, and the vehicle access criteria, meaning residents live far from SNAP-authorized retailers, and the census tract has many households that lack a vehicle as well. Seeing these measures together help highlight neighborhoods where transportation barriers and long distances to food stores may combine, creating greater challenges for food access.

And before I close, I want to extend a sincere thank you to everyone who has worked on this new mapping tool. This tool reflects the incredible dedication and expertise of an amazing team at the Economic Research Service. My contact information and QR code is listed here on this slide, so please feel free to reach out if any questions come up along the road, or if you'd like to continue the conversation. And the published estimates and maps you've seen today are available on the SNAP Retailer Access Map. The QR code on this slide will take you directly to the resource, where you can explore the data even further. Well, that's all for me! I'll pass it back to you for our question-and-answer portion.

Ashley: Thanks so much, Alana. As Alana noted, we are ready to take a few questions. If we don't get to your question today, please email us at ers.press@usda.gov, and we'll be glad to follow up. Alright, for our first question, how often will the SNAP-Authorized Retailer Access Map be updated?

Alana: For the SNAP-Authorized Retailer Access Map, this is a brand-new map, which was just released. At this time, we don't have a set update schedule for the mapping tool. However, it is planned to be updated as needed, subject to data availability. If you would like to subscribe to become aware of any updates, you can go to the ERS website to subscribe.

Ashley: Thanks, Alana! Are there any types of stores not included in the SNAP Retailer Access Map, and why?

Alana: So, there are some types of stores that aren't included in the mapping tool. As an overview, the mapping tool covers all SNAP-authorized brick-and-mortar retailers, except farmers markets and delivery routes. These are excluded because farmers' markets may not operate year-round, they may be seasonal, or keep regular hours, and delivery routes don't have fixed locations.

Ashley: Thank you. Next up...Does this atlas provide information about whether a store accepts online SNAP redemptions?

Alana: Great question, So, far as access the Food Access Research Atlas in the SNAP Authorized retailer access map, access indicators focus on geographic proximity to brick-and-mortar food retailers from where people live. So, restaurants, food service, food pantries, food banks, and also online purchasing aren't included.

Ashley: Got it, thank you. Next up, where does the list of SNAP-authorized stores come from, and what year are they from?

Alana: In the SNAP-Authorized Retailer Access Map, the directory of SNAP-authorized retailers come from a directory of stores that are authorized to accept SNAP benefits that is administered by the Food and Nutrition Administration. And the latest store retailer data is 2025.

Ashley: Thank you. Okay... Next, does the distance from SNAP retailer graphs break down the distance from a retailer by urban or rural?

Alana: Yes. Using the SNAP-Authorized Retailer Access Map data download file, and also in the mapping tool application pop-up box that comes up when you click on the mapping application census tract, you can find information by population by certain distance thresholds to the nearest SNAP-authorized food retailer.

Ashley: Thanks, Alana. Next up... How do I simply search for a store?

Alana: The SNAP-Authorized Retailer Access Map does not have store name or brand information or specific store location information. However, the mapping tool can be used to show areas or neighborhoods that might be impacted by limited, store food access.

Ashley: Got it. Okay, for clarification, has only the SNAP map been updated, or have both sets of maps been updated?

Alana: Thank you, Ashley. As of present, the SNAP-Authorized Retailer Access Map, includes 2025 data. The large retailer access map is updated on a multi-year cycle, typically every 4 to 5 years. So, the last update for that was in 2021, and the next update is in progress with a release planned for winter 2026-2027.

Ashley: Great, thanks! All right, for our next question, which year of census tract boundaries have been used in the map?

Alana: For the SNAP-Authorized Retailer Access Map, it includes 2020 census tract boundaries.

Ashley: Okay. Next...Which data, other than driving distance, has been updated?

Alana: Yes. So, all... so the SNAP-Authorized Retailer Access Map includes its own separate indicators of limited access to healthy and affordable food. 2020 census tract boundaries have been updated. Those particular variables, as mentioned, low income and low access from... to the nearest SNAP-Authorized retailer, has been included in the SNAP-Authorized retailer access map. Also, we include additional estimates for veteran populations and also share of tribal area. And the last thing that I would like to note is that we also include information on 2020 county boundaries as well. You can find updated county names in the low income and low access, and that is included in the mapping data download variable.

Ashley: Thanks, Alana. Next, does the SNAP map cover the entire United States and territories?

Alana: The Food Access Research Atlas and the SNAP-Authorized Retailer Access Map cover the 50 states; the continental U.S. and D.C. Territories are not included.

Ashley: Thanks, Alana. Alright, we've got time for one more here. Does the SNAP map consider public transit?

Alana: Thanks Ashley. The mapping application doesn't include public transit in its distance calculations. However, it does provide a set of access indicators, such as whether households have access to a vehicle. And all of the measures, and the driving distance of the mapping applications, are based on driving distance along the road network, so we can show how far people actually must travel to reach SNAP-Authorized retailers. So, while we don't have transit information in the mapping application, the tool can still offer a picture of geographic food access for communities across the country.

Ashley: Alright, we'll pause there. Thank you, Alana, and thank you all for joining us today. For any additional questions or feedback, please email us at ers.press@usda.gov, and we'd be happy to hear from you. Next slide, please.

To learn more about ERS research and our available data products, visit our website at www.ers.usda.gov. There, you can subscribe for topics of interest, including our popular Charts of Notes series. You can also find us on social through LinkedIn and X. Again, thank you for joining us today. We appreciate your time and interest, and hope this has been helpful. Have a wonderful day. This concludes our webinar.