

Improving Healthy Food Access in Four Eastside Los Angeles Neighborhoods



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Disclaimer

The views expressed herein are those of the authors and not necessarily those of the University of Southern California as a whole. For more information, please contact:

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Introduction

The eastside of Los Angeles (L.A.) is a historic, vibrant, and predominantly Latino cluster of neighborhoods. It is home to multiple generations of Mexican-Americans, and is known for being an epicenter of the Chicano movement and for great Mexican cuisine. This area has also been characterized as a “food desert,” meaning residents have limited access to healthy foods. This is an issue of food justice and is concerning for residents’ health and wellbeing (Walker et al., 2010). This study takes a closer look at food availability and residents’ lived experiences in four eastside neighborhoods with the goal of identifying priorities to improve access to healthy food.

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We focus on four eastside neighborhoods: Boyle Heights, City Terrace, El Sereno, and Lincoln Heights, which we selected because health and social indices rank these areas as having less healthy conditions and higher vulnerability to crises (Equity Explorer, 2022). Indeed, this area was hard-hit by the COVID-19 pandemic. In the last three years, Latinos in L.A. County have experienced steep increases in food insecurity, which is made more challenging in these neighborhoods by issues of environmental injustice and gentrification trends that directly impact food access. These dynamics have and continue to shape features of the landscape (e.g., the placement of freeways, railways, industry hubs, and housing opportunities) that influence access to healthy food.

[“mariachi plaza/boyle heights”](#) by [Paul Narvaez](#) is licensed under [CC BY-NC 2.0](#)

The study area focuses on four neighborhoods — Boyle Heights, City Terrace, El Sereno, and Lincoln Heights — and public housing within or adjacent to these neighborhoods (William Mead, Ramona Gardens, Estrada Courts, and Pico Gardens/Las Casitas Rentals). The study area is home to over 222,300 residents and 55,330 households. Of those, 1,623 household units are in public housing. Most residents identify as Hispanic/Latino, although there is a great deal of racial and ethnic diversity. **Table 1.1** summarizes the sociodemographic characteristics of residents in these four neighborhoods.¹

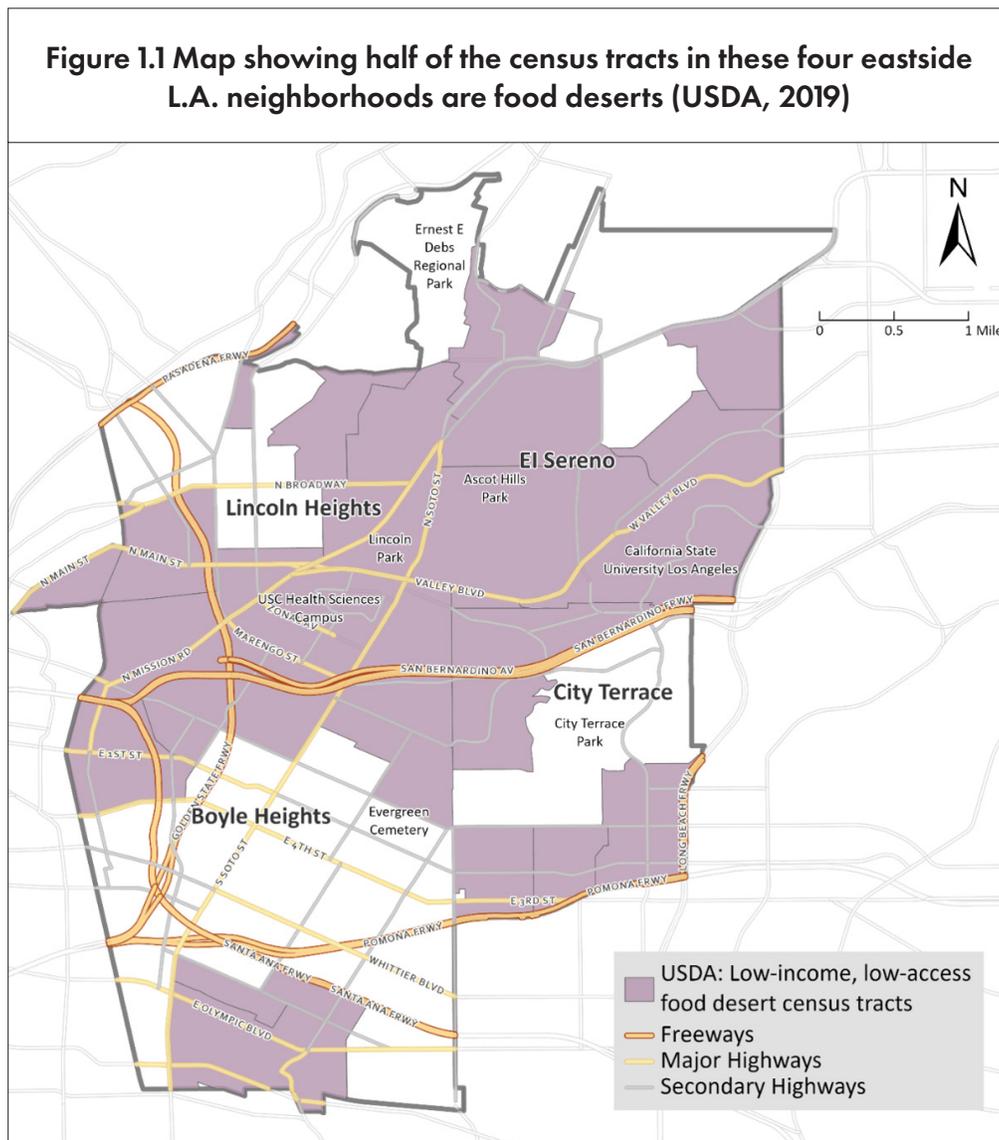
Resident and household characteristics	Boyle Heights	Lincoln Heights	El Sereno	City Terrace
Number of residents	89,284	41,716	55,024	36,320
Number of households	22,442	9,725	13,027	9,305
% Hispanic/Latino	92	67	73	95
Asian	3	24	14	2
Black/African American	1	2	3	1
% foreign-born	63	51	41	57
% adults over 65 years old	12	13	16	11
Median household income (\$)	47,673	46,804	66,079	52,811
% of households living in poverty (<100% of federal poverty line)	21	19	12	16
% no car ownership	17	18	8	10
% households receiving Supplemental Nutrition Assistance Program (SNAP) benefits	20	16	11	10

Data source: American Community Survey, 2016-2020

¹ Note: The table summarizes the characteristics of residents living in government-designated boundaries for these four neighborhoods, which are slightly different from our study boundary. Overall, the characteristics are very similar. For example, there are 55,330 households within our study boundary, but a total of 54,499 households summed across the four government-designated neighborhood areas.

When considering issues of food access and healthy eating, **it is critical to take a “whole-of-system” view** of the influential factors that range from individual and household access, to community food environments and larger structural drivers like food policy and economic opportunity. This is because the large inequalities in access to healthy foods and the burden of diet-related disease are primarily caused by systemic inequality in access to education, wealth, and healthy places to live. In L.A. County and across the U.S., Latinos are more likely to experience food insecurity and have diet-related diseases like obesity and diabetes, compared to many other groups, such as non-Hispanic Whites (Cheng et al., 2019; Cleveland et al., 2023; Coleman-Jensen et al., 2021). In these four eastside L.A. neighborhoods, **half of the census tracts are defined as “food deserts”** by the USDA (Figure 1.1). This “food desert” designation means that many of the residents have low incomes and have poor access to supermarkets and grocery stores, which are a key source of healthy food. Residents and policymakers in these neighborhoods have also raised concerns about some grocery stores stocking lower quality foods that are spoiled or expired (Solis, 2019).

Half of the census tracts are defined as “food deserts” by the USDA



Food Deserts (USDA, 2019)

Our priority is to understand **access to groceries** among residents in these eastside neighborhoods, because this is key to people’s capacity to eat well. The USDA defines **nutrition security** as “all Americans [having] consistent and equitable access to healthy, safe, affordable foods essential to optimal health and well-being” (USDA, 2022). Access to groceries is important because foods that people prepare at home are typically much healthier than foods that *are not* prepared at home (also known as “food away from home”). Food away from home usually comes from fast food, restaurants, or other places that provide prepared food “to go.” Although these foods are often convenient and save time, they tend to be higher in calories but lower in nutrients, often with too much salt, sugar, and fat (USDA, 2018). Food away from home is also more likely to be ultra-processed, and eating ultra-processed foods (e.g., soft drinks, hot dogs, pizza) is linked to a higher

Access to groceries is important because foods that people prepare at home are typically much healthier than foods that are not prepared at home

risk of obesity, diabetes, heart disease, cancer, and depressive symptoms (Popkin et al., 2021). Although stores that sell groceries often stock unhealthy food options, these stores remain a critical source of fruits and vegetables, pantry staples, meats and alternatives, and a variety of food options that residents need to be able to regularly prepare healthy food at home.

Therefore, **the goal of this research was**

to document residents’ access to groceries in these four eastside L.A. neighborhoods, using methods that ranged from one-on-one interviews to innovative geographic mapping. We aimed to help policymakers, community organizations, local businesses, and community leaders make tailored and data-driven decisions for improving healthy food access and nutrition security.



Finding 1

People in these four eastside L.A. neighborhoods want better access to healthy, high-quality food that they can afford

In August 2022, we interviewed 31 residents in these four eastside L.A. neighborhoods with the goal of understanding their current access to groceries, as well as their needs and priorities. A sample of 30 is more than enough to identify the key topics in interviewees' minds (Morgan et al., 2022). Indeed, no more new topics were raised after our first 20 interviews.

Interviewees answered questions about how they get groceries, what is challenging, and what can be improved. Interviewees lived in Boyle Heights, City Terrace, El Sereno, and Lincoln Heights.

Residents are concerned about grocery quality, cost, and variety

The main message we heard is that residents of these four neighborhoods in L.A.'s eastside have limited access to affordable high-quality groceries. The key concerns they expressed were about: (i) local stores selling low quality foods, (ii) the high price of foods, especially with inflation, and (iii) limited foods available at smaller markets and corner stores. Interviewees explain:

“The stores in my neighborhood are small and a little pricey. But if you need something immediate, this is where you come...sometimes the vegetables are not the prettiest or you know, they go bad quickly, faster, I noticed, than other companies.” -P 18

“Sometimes I can't find some [of the] food [I'm looking for at smaller markets]. For example, [they] don't have salmon here...I try to [buy] a large one to cook it like a steak [so it lasts longer] but they don't sell it here. I don't know if it's because it's very expensive and it spoils, but they don't sell it. Some places sell it, but it's expensive, but I try to [find] a discount for salmon or other meat.” -P 17

"I did notice last week when I was at [my local] store that if you don't check the expiration date of the milk, a lot of times the milk is about to expire in a couple of days. So, if you're not paying attention and you're just putting everything in your cart, a lot of the time the milk or the juices are about to expire so you're wasting your money." -P 26

"I think [the places in my neighborhood that sell groceries are] good, but they're too expensive." -P 30

Residents go through extensive efforts to get the groceries they want

Many interviewees said that they had to go to multiple stores to get the type and quality of groceries they want, which adds time and transportation challenges. For example:

"When I don't [find the grocery item] in one place, I go to another place. If I can't find it, I go somewhere else. That's the problem. Sometimes I can't find something, and I have to go to another place to look for it." -P 16

"In the car I go around from one place to another seeing where there are better quality things. Of course, if I get to the store and see that the things are in bad condition, I don't buy them, but I have to go to another place even if it's more expensive but [the items are] in a better condition." -P 21

Interviewees also shared other strategies they used to get foods they want and need. For example, they buy frozen foods that have more consistent quality, and they buy bulk foods at large grocery stores to save money and make fewer grocery trips.

Food assistance programs help

Many interviewees said that the high price of groceries made it difficult to afford the food they need, but that food assistance programs (including CalFresh, school meal programs, and food pantries) and store coupons did help.

“[Food assistance programs] make it easy for me [to get the foods I need] because I can buy fresh food for my children, fruit, greens, vegetables, meat, and all [that].” -P 8

“[Coupons] make it easier to get [food]. Amazon Fresh has coupons. So, for example, let’s say it’s chicken [that we want]. On our app it will say there’s a coupon for 59 cents off and it automatically adds it to your cart so you’re able to use it towards your buy.” -P 7

Residents want better food options

When asked what changes they would like to see in their neighborhood food landscape, most interviewees said that they did not need a new grocery store. Instead, they want existing stores to provide better access to a wider variety of food that is **healthy, high-quality, organic, and affordable**. A smaller number of residents thought a new grocery store was a good idea. Several residents also stated that more community gardens and nutrition programs would benefit their community. Residents said:

“[I want] cheaper options for healthier foods.”
- multiple interviewees

“I’d like the food to always be fresh and healthy so that we don’t get so sick, and to reduce the prices a bit.” -P 15

“I’d like them to add a little more variety because there aren’t many things like – they don’t have some meats because they’re very expensive and because it’s not convenient for them to sell it because it’s expensive.” -P 17

“I just wish we had more options here...but what we’ve been told is that those corporations... will not invest in coming into communities of color and low socioeconomic, because they feel that we will not purchase you know, expensive organic food.” –P 18

“I definitely would want plant-based and more organic, not a lot of processed foods.” –P 26

“I wish the food didn’t have so much pesticide because we have to wash the vegetables well, and sometimes we don’t wash anything when we’re in a hurry. Cilantro only quickly... That’s what I want. More organic, vegetables and everything more organic. ” –P 24

“[I want to] have more healthier options available, because these days everything has preservatives in it to make it last longer.” –P 11

“[It would help] having more supermarkets or fruit and vegetable stores, mainly in variety, maybe closer to the community or offering transportation.” –P 13

“[I’d like to see] a lot of garden spaces where you can get vegetables and fruits. And then a program where they give free trees, you know, of fruits to the community. Things like that.” –P 18

“[It would help] having more access to food and it not being so expensive because soon we won’t be able to buy food.” –P 24

Finding 2 | There are 269 stores that sell groceries in these four neighborhoods in L.A.’s eastside, but the variety and price of foods differ across stores

Lists of retail food outlets tend to be incomplete, not up-to-date, or difficult to use to identify stores that sell groceries. Therefore, we conducted an on-the-ground audit of **all retail outlets that sell groceries** in these four neighborhoods in L.A.’s eastside over the summer of 2022.

Category	No. of Stores
Supermarket/grocery store	36
Other stores that sell food products	129
Non-specialty store (e.g., market, bodega, convenience store)	81
Bakery	25
Butcher	17
Fishmonger	4
Health food	1
Confectionary/candy store	1
Stores whose primary business is not grocery sales	104
Gas station	30
Liquor store	23
Dollar/discount store	15
Donut store	17
Drugstore/pharmacy	9
Other/not known (e.g., money transfer store, water store)	10

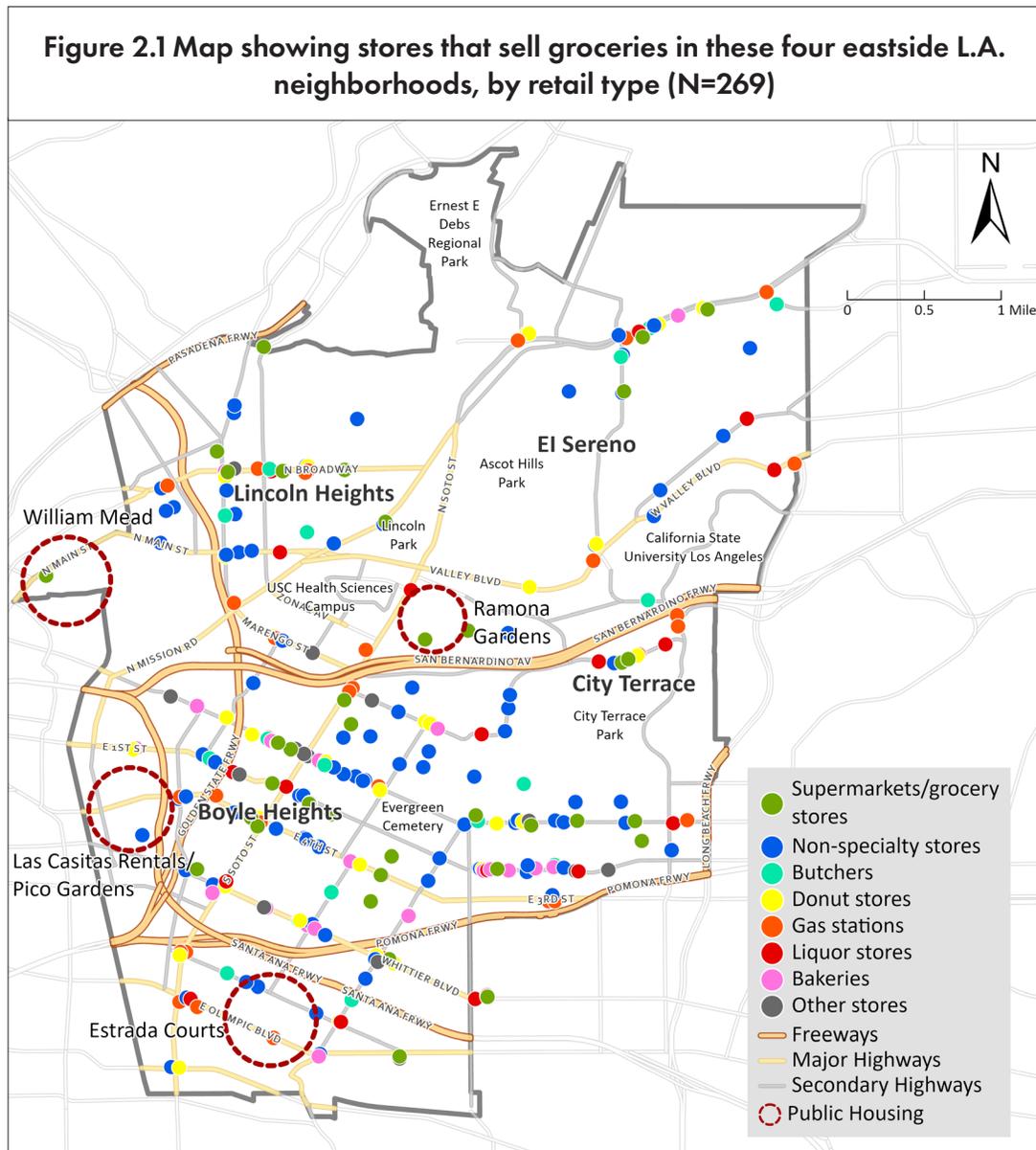
Rather than being a “food desert,” the four eastside L.A. neighborhoods have a diverse landscape of 269 retail outlets that sell groceries

Half of the census tracts in these four eastside L.A. neighborhoods are identified as food deserts by the USDA, meaning they are low-income areas where a substantial share of residents do not have access to supermarket or grocery stores within a half mile. However, this “food desert” label misses important characteristics of the community food landscape. **Our audit identified 269 retail outlets that sell groceries in these neighborhoods (Figure 2.1),** which are a mix of retail types and include supermarkets as well as many stores whose primary business is *not* selling food products (Table 2.1).

- **36 stores (13%) are supermarkets/large grocery stores** that are predominantly in the business of selling a variety of food products. All grocery stores sell multiple types of fresh fruits and vegetables, and grains. Most also carry meat, dairy products, and pantry staples.

- **129 stores (48%) sell more limited food products**, with the majority of these being “non-specialty stores” like markets, bodegas, and convenience stores. A smaller number are specialty stores like bakeries, butchers, and fishmongers.
- **104 (39%) are other types of stores whose primary business is not selling groceries**, but who have some food products available. These stores include gas stations, liquor stores, dollar stores, donut shops, and drug stores.

One quarter (25%) of the 269 stores that sell groceries are chain stores.



Source of retail food outlet data: Study audit

Most of the 269 stores that sell groceries in these four eastside L.A. neighborhoods have a limited variety of healthy food

The “food desert” label for many of these neighborhoods was accurate in reflecting a lack of access to **healthy food**. Our audit found that the majority of the 269 stores that sell groceries allocate a small amount of their retail space for food and do not sell healthy grocery options like fresh fruits and vegetables. Specifically:

Store layout

Almost one half of stores (127 of 269) have less than 25% of their retail space for groceries.

One in four stores (66 of 269) have more than 50% of their retail space for groceries.

Foods available

The majority of these 269 stores sell multiple unhealthy food items, while healthy food options like fruits, vegetables, and grains are less common. However, healthy food products are much more available at the 36 supermarkets and grocery stores (see **Figure 2.2**). For example:

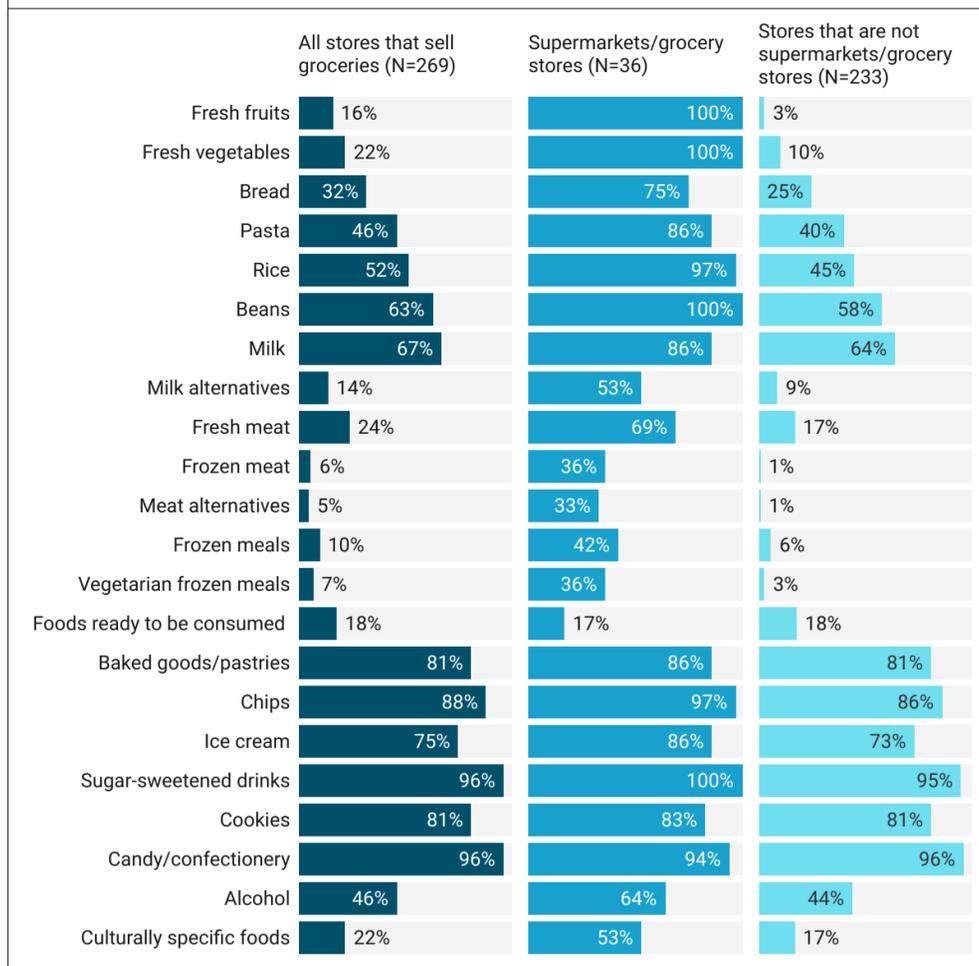
- Just one in four of all stores (76 out of 269, or 28%) sells fresh fruits or vegetables, or fresh meat (65, or 24%)
- Healthy grocery staples like fresh fruits and vegetables, grains, and milk or milk alternatives, are sold at most or all supermarkets/grocery stores, but are much less available at other types of stores
- Almost all stores (259 out of 269 stores, or 96%) sell candy/confectionery and sugar-sweetened beverages, such as soda, energy drinks, or sweetened juice. Supermarkets/grocery stores are just as likely to sell these foods as other types of stores.
- About one half of all stores (125 out of 269 stores, or 46%) sell alcohol

Culturally relevant foods

59 stores (22%) sell food associated with one or more ethnicities or cultures (predominantly Latino or Mexican), and these foods are more available at grocery stores/supermarkets (53%) compared to other types of stores (17%)



Figure 2.2 Percent of stores selling specific foods in these four eastside L.A. neighborhoods, split by store type



Food prices vary and tend to be higher in independent (non-chain) stores

Across the 269 stores that sell groceries, there were large differences in the price of staple food items (**Table 2.2**). Prices tended to be higher in independent (non-chain) stores. Fortunately, two out of three stores (171 stores, or 64%) accept EBT/CalFresh benefits, aiding some residents' financial access to groceries.

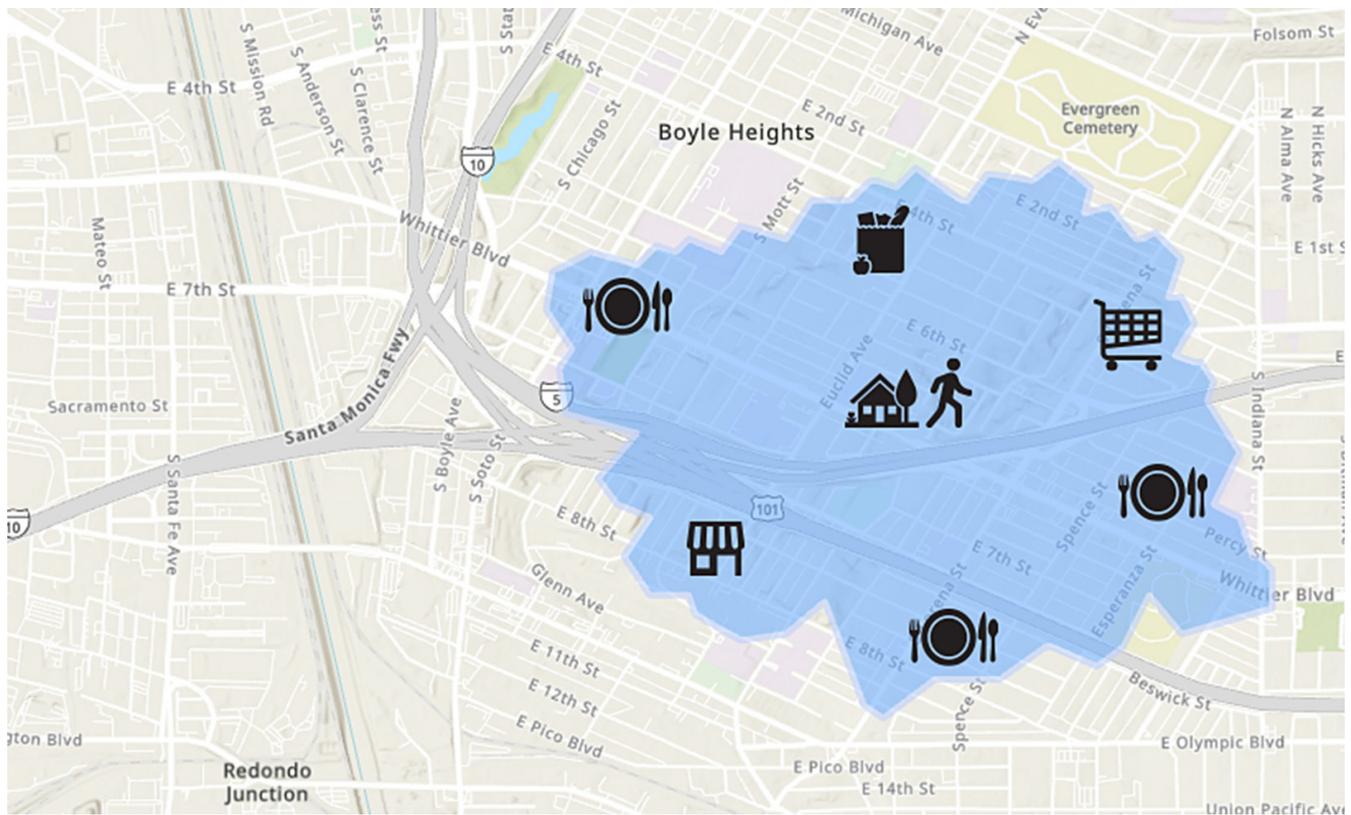
Table 2.2 There is a wide price range for specific foods across stores that sell groceries in these four eastside L.A. neighborhoods

Category	Count/Price range	No. of stores
Apples	\$0.50-\$1.29 each, \$0.60-\$2.99/lb.	34
Bananas	\$0.33-\$1.50 each; \$0.55-\$1.69/lb.	35
Roma tomatoes	\$1.00-\$2.50 each; \$0.75-\$1.99/lb.	33
Whole milk, 64 oz	\$1.29-\$4.99	43
Whole wheat bread, loaf	\$0.99-\$5.49	28
Tin black beans, each	\$0.89-\$3.49	67
Chicken breast, 2lb	\$3.49-\$13.98	11
Eggs, 1 dozen	\$1.00-\$5.59	37
Frozen strawberries	\$1.49-\$5.73/lb.	11
Frozen lasagna	\$3.54-\$9.16/lb.	17

Finding 3 | Of the 55,000+ households in these four eastside L.A. neighborhoods, 13% have no access to supermarkets or grocery stores within a 15-minute walk

To understand access to groceries from the perspective of *residents* in these eastside L.A. neighborhoods, we use a “15-minute city” approach to map the stores that sell groceries that each household has access to in a 15-minute walk. A “15-minute city” is a geography where residents can easily (within approximately 15-minutes of their home) get access to key services and facilities they need in their day-to-day lives (Allam et al., 2022; C40 Cities, 2020). Food shopping is one of these necessities.

Given that food products are ubiquitous in many stores like gas stations, dollar stores, and corner stores, we examine household access to **all stores that sell groceries**, as well as their access to **supermarkets and grocery stores**. We also map household access to **stores accepting EBT/CalFresh**, because this is an important facet of *financial access* to food (Major et al., 2018).



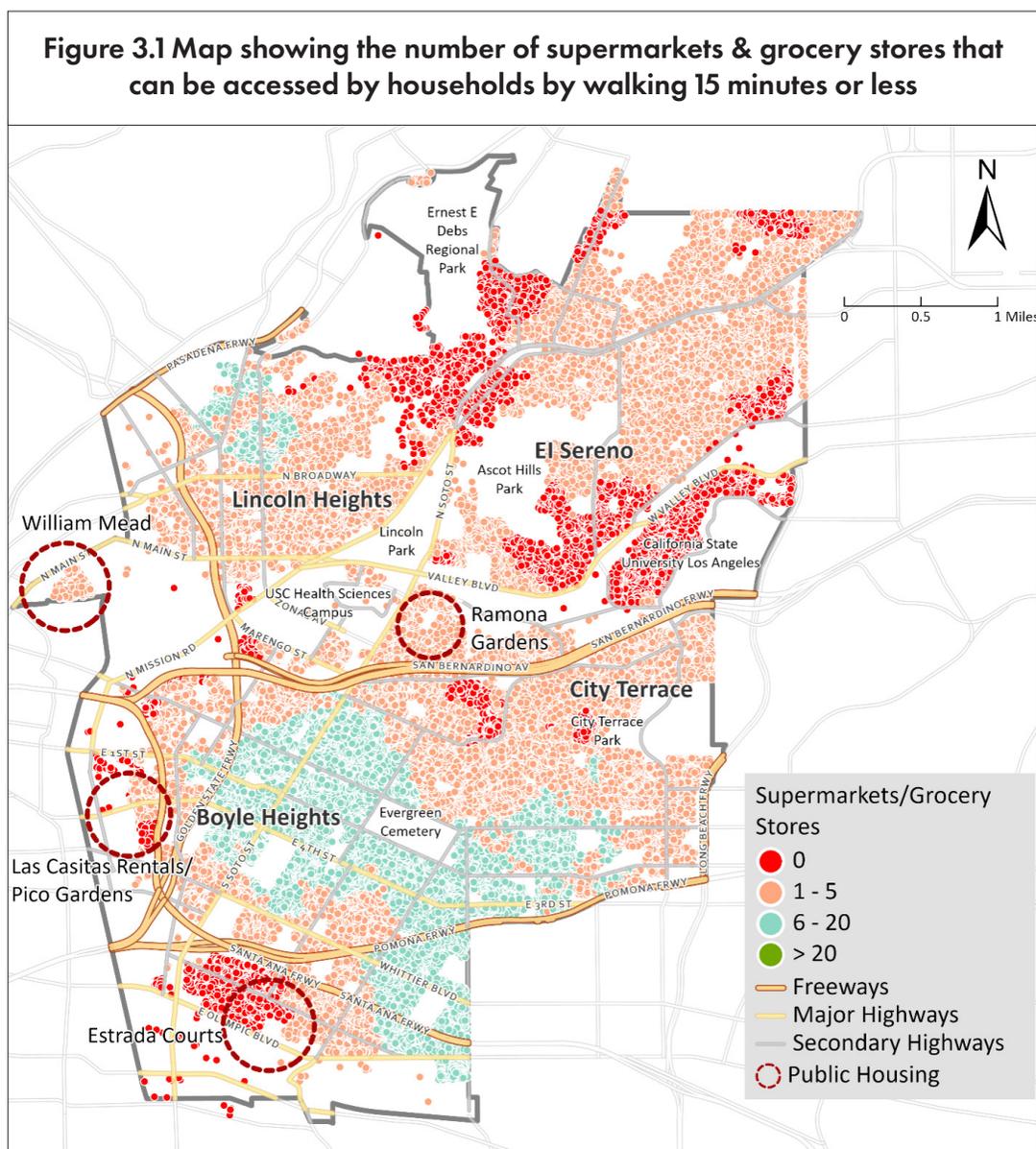
There are 55,330 households in these four eastside L.A. neighborhoods, which includes 1,623 household units in four public housing communities: Estrada Courts, Pico Gardens/Las Casitas Rentals, Ramona Gardens, and William Mead.

Our key insights into grocery access for these 55,330 households are:

(i) **Household access to groceries is much more nuanced** than what is depicted by maps showing 50% of the census tracts in these four eastside L.A. neighborhoods are “food deserts.” This is especially true when you consider each household’s unique access and consider access to all stores that sell groceries beyond a traditional supermarket or grocery store.

(ii) 13% of households have no access to **supermarkets/grocery stores** within a 15-minute walk (**Figure 3.1**). There are 36 such stores in our study area. Additionally:

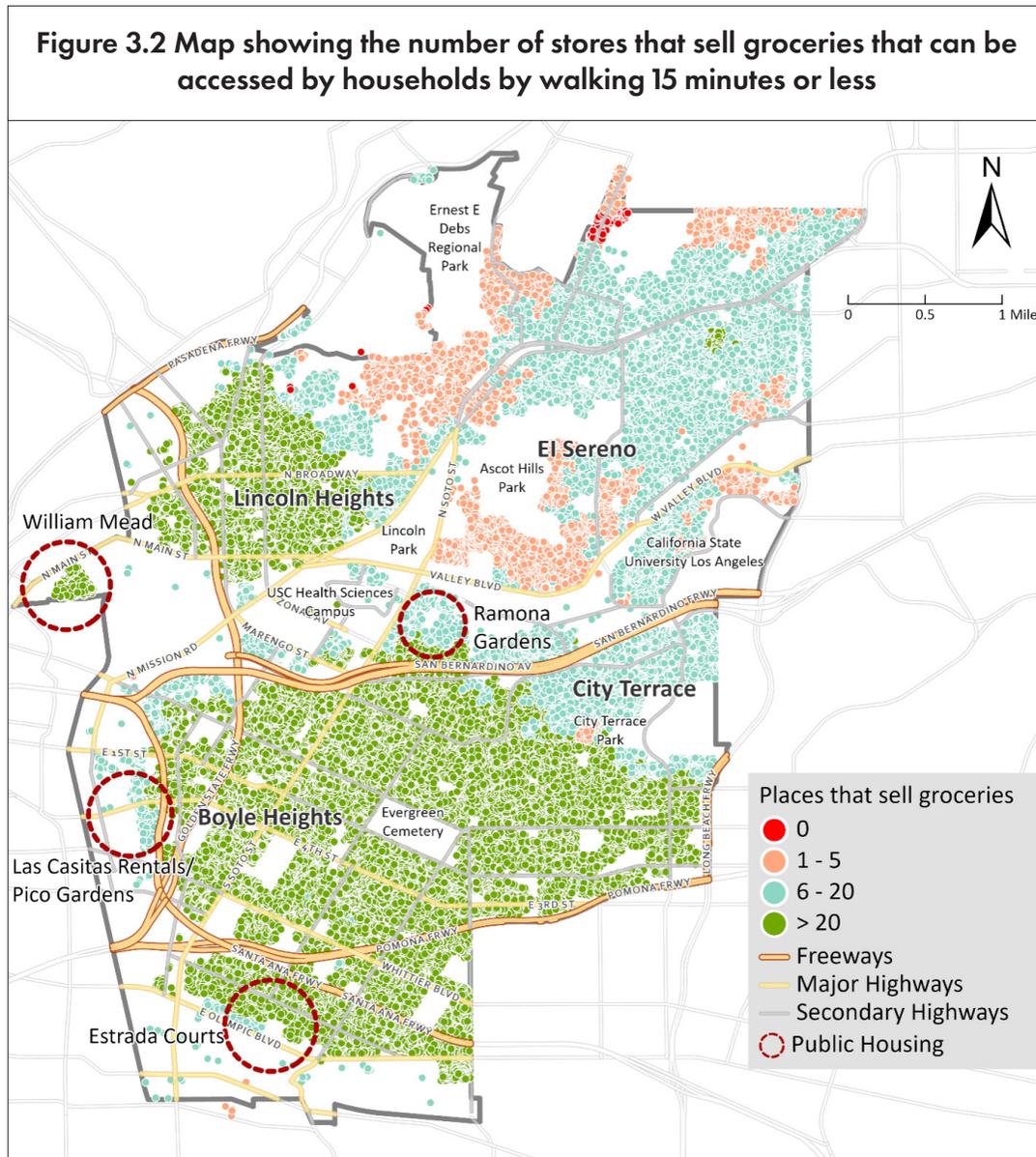
- Households with no access to supermarkets/grocery stores are primarily clustered in areas of El Sereno, City Terrace, and the southern part of Boyle Heights, and some public housing
- The majority (62%) of households have access to between 1 and 5 supermarkets/grocery stores within a 15-minute walk



Source of retail food outlet data: Study audit, Data Axle

(iii) The vast majority of households (91%) have access to 6 or more **stores that sell groceries** within a 15-minute walk (**Figure 3.2**). There are 269 such stores in our study area. Specifically:

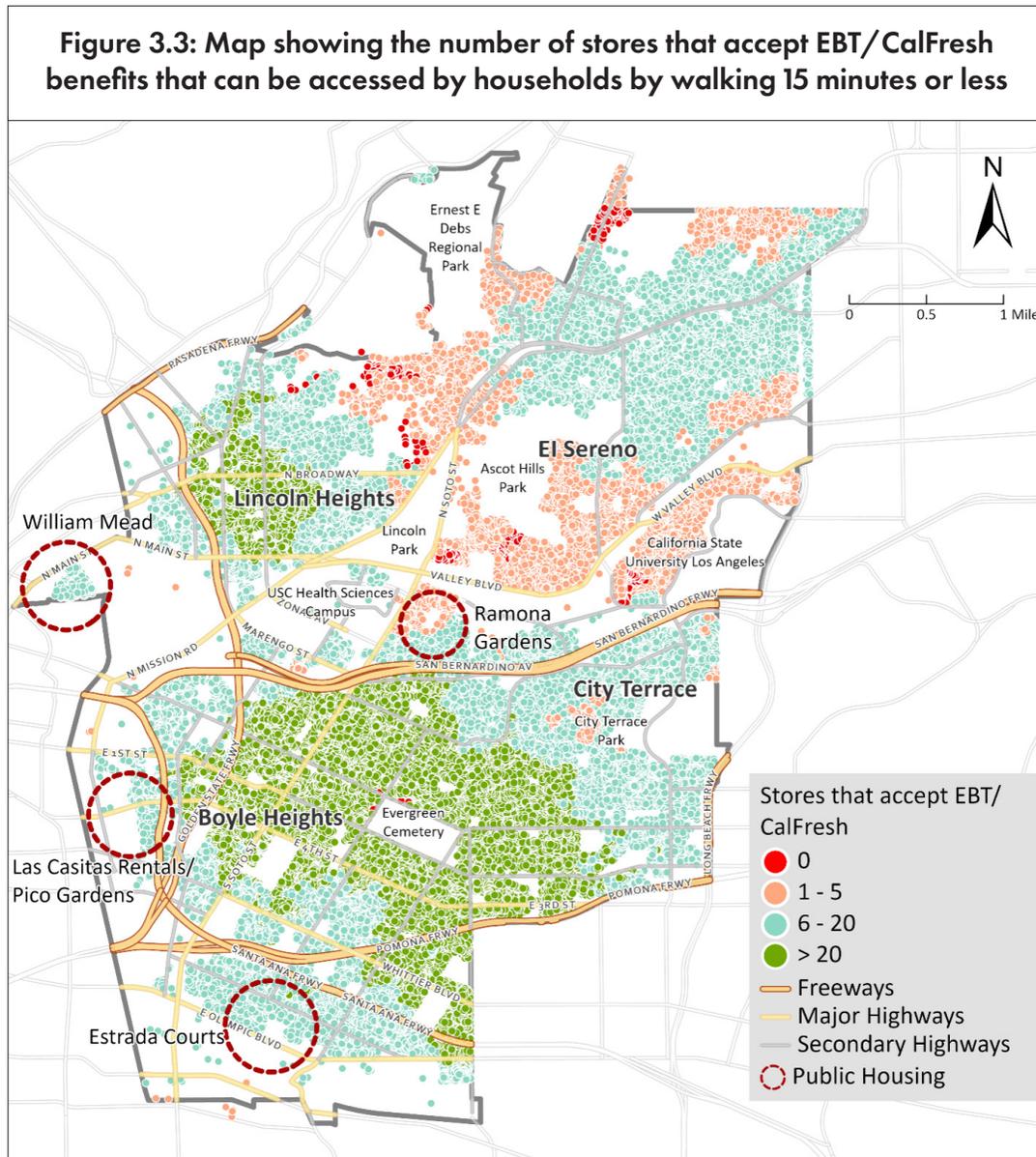
- Less than 1% of households have no access: i.e., zero (0) stores that sell groceries within a 15-minute walk
- Less than 1 in 10 households (9%) have limited access: i.e., 1 to 5 stores that sell groceries within a 15-minute walk
- Small clusters of households with no or limited access are primarily clustered in El Sereno and City Terrace



Source of retail food outlet data: Study audit, County of Los Angeles Environmental Health Inspection data

(iv) Most households (91%) have good access to **stores that accept EBT/CalFresh**, meaning they have 6 or more such stores available within a 15-minute walk (**Figure 3.3**). There are 172 such stores in the four neighborhoods we focus on in L.A.'s eastside, which include supermarkets, dollar stores, markets, drug stores, and others.

The 1 in 10 households that have lower access to these stores (5 or fewer stores in a 15-min walk) are mostly concentrated in El Sereno and in the Ramona Gardens public housing.



Source of retail food outlet data: Study audit, USDA

(v) Residents with *the least* access to supermarkets and grocery stores generally had better incomes, education, and resources, compared to those with better access.

Given the household variability in access to supermarkets/grocery stores, and their key role in providing access to a wide range of affordable and healthy foods, we conducted analyses to describe the types of residents with the poorest access to these stores. We found that census tracts where the majority (>50%) of households had *no or low access* (5 or less) to supermarkets/grocery stores within a 15-minute walk (compared to those where the majority had good access, with 5+ supermarkets and grocery stores), had:

- Lower poverty rates, and higher incomes
- Higher educational attainment
- Higher unemployment rate (i.e., higher unemployment among those in the labor force)¹
- Fewer foreign-born residents
- Fewer Hispanic/Latino residents, and more Asian residents
- Higher car ownership
- Fewer renters and more homeowners
- Lower enrollment in CalFresh (this may be due to higher incomes, and so less eligibility)

This overall pattern may be partly explained by these more resourced residents choosing to reside in areas with more residential and less business zoning, which they deem more desirable. However, our analyses also identified some local exceptions to this pattern. For example, residents in the south part of Boyle Heights near Las Casitas Rentals/ Pico Gardens have significantly lower income levels, less car ownership, and more are renters (vs. homeowners) than other census tracts, and many had low access to supermarkets/grocery stores.

See the **Research Methods** for detail about the data and analytic approach used in this section.



¹ Higher unemployment rates among this group seems counterintuitive, given they have higher incomes and education. Possible explanations are that these higher-resourced individuals may have lower rates of employment because they have the means to exit the workforce, particularly during the pandemic, and/or because they have other sources of income such as property rentals.

Finding 4

Of the 55,000+ households in the four eastside L.A. neighborhoods, nearly 1 in 4 had no food assistance provider within a 15-minute walk



Food banks and pantries serve a key role in supplementing food needs for many residents.

Food banks and pantries serve a key role in supplementing food needs for many residents. Government assistance programs like CalFresh and WIC improve food access for millions of residents in L.A. County. For example, throughout 2022, CalFresh benefitted more than 1.5 million county residents (Salesforce, 2022). However, many households with food insecurity are not enrolled in these programs. This may be due to multiple possible factors. For example, they are not eligible. Or, they may think they are not eligible, even though they are. Other barriers to enrollment include worries related to immigration status and stigma (LAFPC, 2022). Thus, charitable and community food assistance providers contribute much-needed food to residents who *are not* enrolled in government programs. Additionally, government food programs do not always provide enough financial support, and households enrolled in these programs often supplement their food needs at food banks, food pantries, and other community organizations.

To investigate food assistance in these four neighborhoods in L.A.'s eastside, we combined databases of charitable and community food assistance providers from the Los Angeles Regional Food Bank and findhelp.org. The **Los Angeles Regional Food Bank** mobilizes resources to fight hunger throughout L.A. County, distributing millions of pounds of food to a large network of providers each week. In 2022 alone, the Food Bank reported serving 800,000 to 900,000 people *each month* through partner agencies and direct distributions. **Findhelp.org** curates a database of service providers for every ZIP code in the U.S., including charitable and community food assistance providers.

Finding 5 | Many programs and initiatives exist to support grocery access for L.A. residents

There are many government and community programs in L.A. that are designed to improve access to groceries and food. They help with finances, improve the proximity of food options, and increase access to foods that are culturally acceptable. These programs may need to be expanded or better-leveraged to help improve access to healthy and high-quality groceries in these eastside L.A. neighborhoods, or additional complimentary programs may be needed.

Existing programs include:



Programs directly helping residents get food and groceries

The largest government-funded food program is **CalFresh**, federally known as the Supplemental Nutrition Assistance Program (previously ‘food stamps’). It provides low-income households with money (via EBT cards) to spend on food, to increase their buying power. **Women, Infants, & Children (WIC)** is another federal-based program that provides healthy food, nutrition education, and breastfeeding support to pregnant women, mothers, infants, and children up to age five.

There are an array of other government programs in L.A. County that assist with food and grocery access, such as:

After-School Meal Programs	Los Angeles County Food DROP Program
Child and Adult Care Food Program	Market Match
Commodity Supplemental Food Program	Meals on Wheels
Congregate Nutrition Program	Pandemic Electronic Benefits Transfer (P-EBT)
The Emergency Food Assistance Program	School Breakfast Program and National School Lunch Program (School Meals)
Food Gleaning and Redistribution	Senior Farmers' Market Nutrition Program
Head Start	Summer Meals Program
Home-Delivered Nutrition Program	

Food as Medicine programs

Food as Medicine programs, also known as Medically Tailored Meals or prescribed grocery programs, are designed and delivered to individuals through a referral from a medical professional or healthcare plan. Prescribed grocery or meal plans are tailored to the recipient's medical needs, often by a Registered Dietician, and are designed to improve overall health. Medically tailored meal programs are often directed towards those with acute or chronic illnesses, and for three to six months at a time. The availability of Food as Medicine programs is growing, and some examples in L.A. County are:

- Blue Shield of California
- Health Net Medically Tailored Meals
- LA Care Medically Tailored Meals
- Molina Healthcare
- Project Angel Food

Programs increasing the accessibility of healthy groceries in the retail or community space

An important strategy to strengthen community access to healthy foods and nutrition security is through the provision of support and resources to food outlets and local food producers and suppliers. Some programs uplift local retail outlets to procure, store, and sell more nutritious food items. Examples include:

- [Healthy Neighborhood Market Network Program](#)
- [Policies requiring liquor stores to sell some grocery products](#)
- [Healthy Stores Refrigeration program](#)

There is a push to increase community garden spaces in urban and rural areas to support circular and sustainable access to fresh produce. Examples include:

- [LA Community Garden Council](#)
- [LA Neighborhood Land Trust](#)
- [LA Conservation Corps](#)

To help households that do not have easy access to food sources by walking or their own transportation, L.A. Metro and the City of L.A.'s Department of Transportation offer multiple free and subsidized transportation options like [Blue L.A.](#) (subsidized EV cars) and [Metro Bike Share](#), which can support individuals in accessing retail food sites. Other programs directly help with the transportation or delivery of groceries. Examples include:

- [Access Paratransit](#)
- [Big Blue Bus LA](#)
- [Dash](#)
- [LA Metro EZ Transit](#)
- [LA Metro Micro](#)
- [LADOT UBM](#)
- [Low-Income Fare is Easy \(LIFE\) - LA Metro](#)

Conclusions

Our study of healthy food access in four neighborhoods in L.A.'s eastside – Boyle Heights, City Terrace, El Sereno, and Lincoln Heights — has the following key conclusions:

1. Residents in these four eastside L.A. neighborhoods want better access to healthy, high-quality food that they can afford.

- Instead of a new grocery store, most residents want better food options in their existing local stores and markets.

2. These four eastside L.A. neighborhoods have many (269) stores that sell groceries, but the variety and price of foods differs across stores.

- Many retail outlets besides supermarkets and grocery stores sell groceries, but those outlets tend to have less variety of foods and fewer healthy food options.
- Supermarkets and grocery stores, which have more healthy options, make up just 13% of stores in the area.

3. Of the 55,000+ households in these four eastside L.A. neighborhoods, 13% have no access to supermarkets or grocery stores within a 15-minute walk.

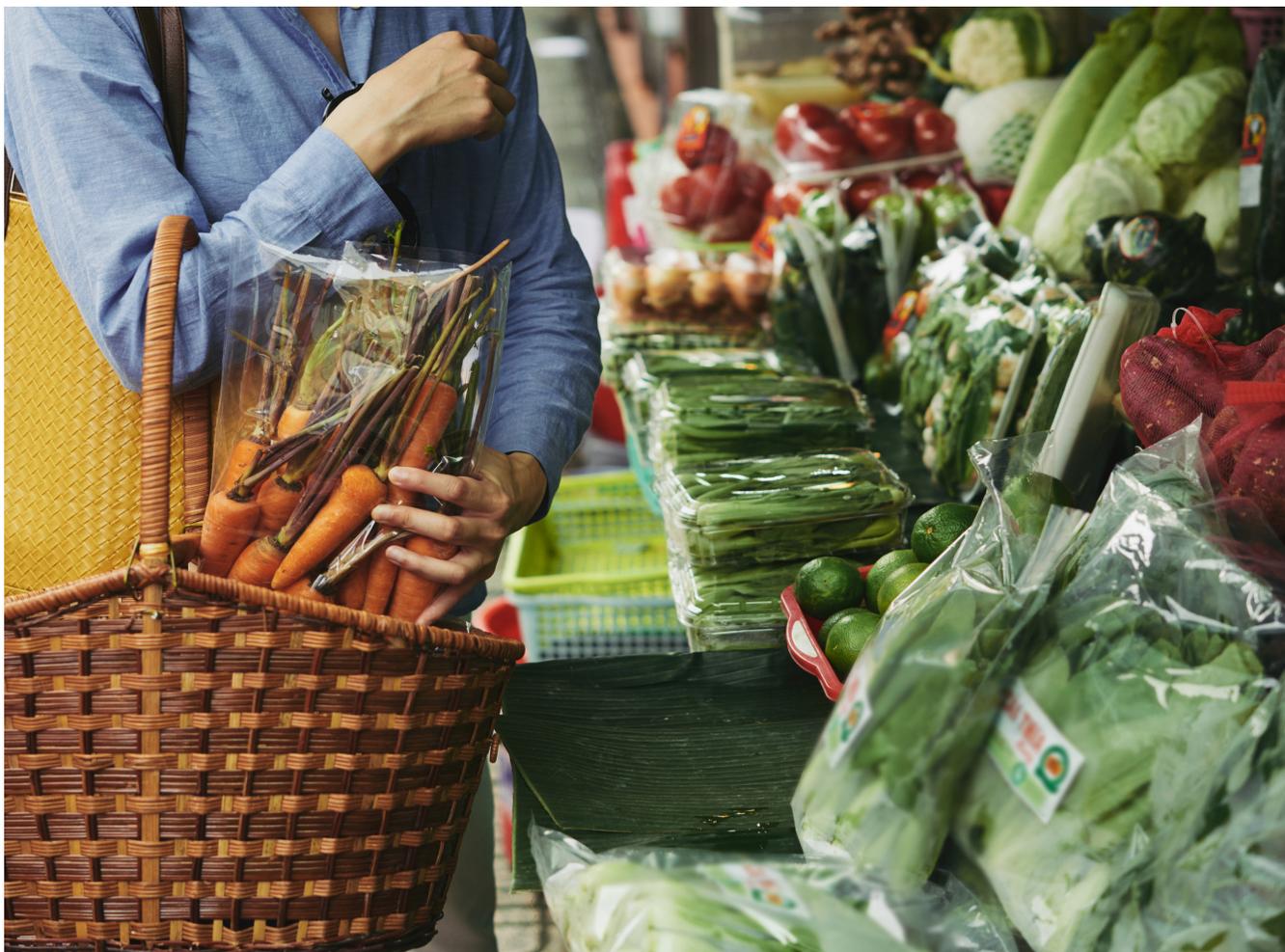
- This is an issue because supermarkets and grocery stores are the most reliable source of healthy grocery items.
- Overall, households with the least access to supermarkets and grocery stores have *higher* incomes and *more* resources, but there are some exceptions. For example, residents in the south part of Boyle Heights near Las Casitas Rentals/Pico Gardens have significantly lower income levels and less car ownership than other census tracts, and many had little access to supermarkets and grocery stores.
- Food access is much more nuanced than what is captured by the notion of “neighborhood food deserts.” For example, most of Lincoln Heights and El Sereno are categorized as “food deserts,” but we identified specific clusters of households within these areas with low access to a supermarket or grocery store. Additionally, most households have access to other types of stores that sell groceries, but these stores do have limited affordable healthy food.

4. Of the 55,000+ households in these four eastside L.A. neighborhoods, nearly 1 in 4 have no food assistance provider within a 15-minute walk.

- Some clusters of households in El Sereno and Lincoln Heights have poor access to both supermarkets/ grocery stores and food pantries – both important sources of healthy foods and groceries for residents with low incomes.
- Ramona Gardens is one public housing area with notably poor access to food pantries.

5. Many programs and initiatives exist to support grocery access for L.A. residents, but there remain gaps in food needs among residents in these four eastside L.A. neighborhoods.

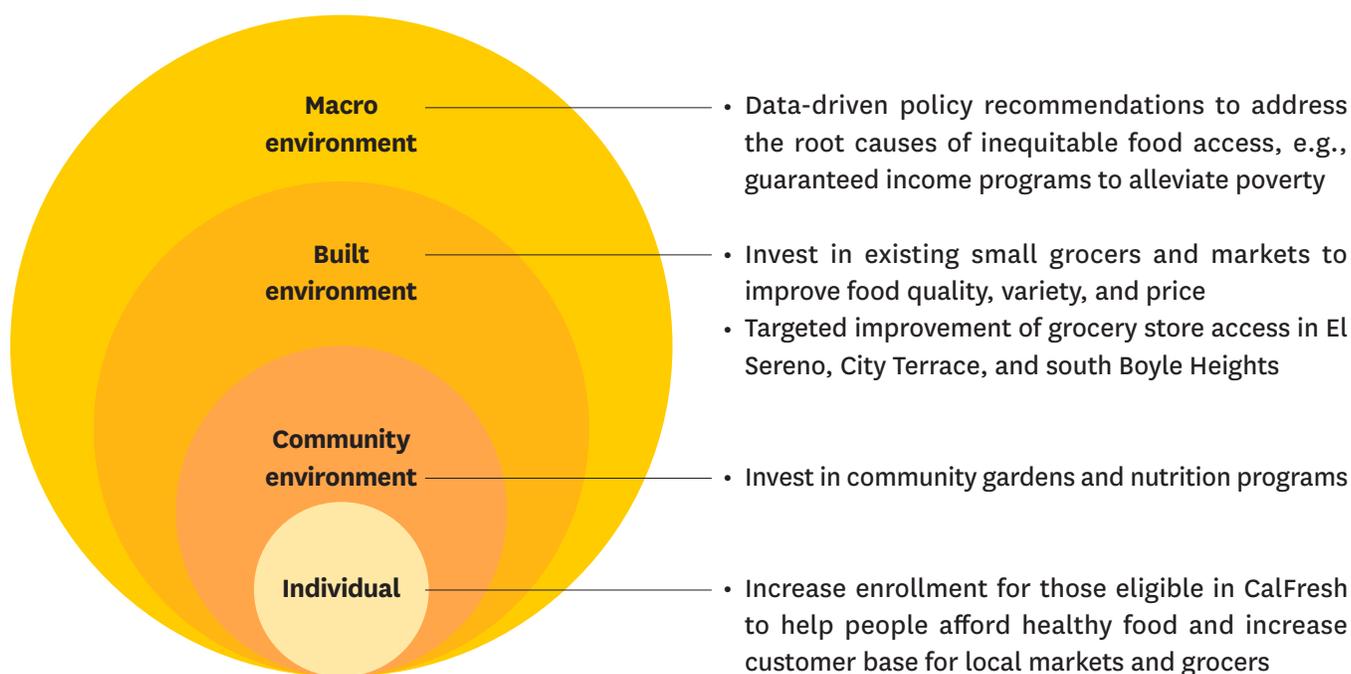
- Implementation science shows this is a common problem: many evidence-based programs and policies are not adequately implemented and adopted, lessening their real-world impact (Shelton et al., 2020). Implementation science offers useful insights into “how do we get ‘what works’ to the people who need it” with better efficiency, quality, and coverage. One key ingredient is community-engaged, “whole-of-system” research to ensure that implementation is tailored to the needs of people engaging with these programs and policies, and that the resources and social capital needed for program adoption and diffusion are in place. In these four eastside L.A. neighborhoods, more implementation research is needed to understand how existing programs can be strengthened or complemented to better meet residents’ food needs.
- Initiatives to address these gaps should consider the challenges faced by grocers at the supermarket and smaller retail level, and work to reduce the barriers they face in opening and sustaining profitable locations that carry more healthy and high-quality food options for their customers.



Recommendations

Our recommended roadmap for strengthening healthy food access in these four neighborhoods in L.A.’s eastside builds on the conclusions from our research. Our recommendations are based on a **“whole-of-system” approach** that is evidence-based and seeks to remove barriers to food access that span many levels (e.g., resident resources, community food environments, and bigger structural forces) (Carey et al, 2015). Rather than rely on a “silver bullet” solution, a “whole-of-system” approach creates changes that synergistically work together to have a greater, more sustainable, and transformative impact on a complicated food system. This approach also assumes that upstream, structural factors must change so that individuals and communities have equitable opportunities to achieve nutrition security and good health over the longer term. Below is an outline of recommendations for policymakers, community organizations, local businesses, and community leaders that aim to tackle the challenge from different intervention levels.

Examples of Whole-of-System Initiatives to Improve Healthy Food Access



1. **Leverage existing programs, or develop new programs and initiatives, to improve the quality, variety, and healthfulness of foods that local stores procure and offer, while ensuring that this is profitable for grocers.** Support is especially needed at smaller grocers, markets, and independent retailers. For example:
 - Expand investment in programs like the Los Angeles Food Policy Council’s Healthy Neighborhood Market Network (<https://www.goodfoodla.org/healthyneighborhoodmarketnetwork>) that trains and guides small markets and grocers to carry healthier and culturally-relevant foods that support successful business models.

- Identify opportunities for smaller grocery stores and markets to do cooperative buying of healthy and fresh produce at bulk wholesale prices, so that individual retailers can obtain these foods in smaller quantities, but have the support to do this in a way that is profitable for their businesses and affordable for their customers.
 - Reduce barriers for smaller grocers to accept EBT/CalFresh benefits and participate in programs like Market Match (<https://marketmatch.org>), which can help increase sales of healthy groceries by making them more financially accessible to customers.
 - Consider policies and guidelines that can improve the range of healthy food choices that are stocked by retailers who receive government assistance/benefits (e.g., CalFresh), such as limiting retail sales of sugar-sweetened beverages and actively promoting healthier food options.
2. **Identify more opportunities to make high-quality, organic, healthy foods more affordable for residents.** For example:
- Lower the price of these foods through increasing and/or expanding subsidies. E.g., WIC benefits that help mothers and children purchase healthy food items, or Market Match programs that lower prices of fruits and vegetables.
 - Increase residents' buying power for healthy groceries by increasing enrollment in and use of government food assistance programs like CalFresh, and expanding program benefits.
 - Expand resources that enable local grocers, farm stands, farmer's markets and more to accept government food assistance like CalFresh and Market Match.
3. **Develop tailored strategies based on household access to improve and optimize residents' geographic access to groceries, particularly for those with the greatest need.** To date, one strategy commonly used to improve food access is to open a new supermarket or grocery store in neighborhoods that are designated as food deserts. But research evaluating these initiatives has shown that there are few positive benefits to residents' diets or health (Ghosh-Dastidar et al., 2017). Examples of more tailored strategies based on household access, which may be complementary or prove more effective, are:
- Any development of new grocery stores, or transportation initiatives that help residents get to and from grocery stores, should be tailored to specific clusters of households with the lowest access.
 - Consider mobile food trucks or pop-up market sites to reduce transportation barriers and bring food to community members in need.
4. **Continue to invest in and expand community programs that strengthen a culture of healthy eating and wellbeing, and complement these with support for other structural initiatives that improve food access.** For example:
- Expanding community gardens, farm-to-school programs, and community and school nutrition education initiatives.

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Research Methods

Data Sources

In this report, our findings are based on the following data sources:

<p>Interviews with residents</p>	<p>To understand the grocery shopping experiences of residents, we conducted open-ended interviews with 31 adults who live in the four focal eastside L.A. neighborhoods. Potential participants were approached at 5 locations in Boyle Heights, City Terrace, El Sereno, and Lincoln Heights, including at grocery stores and markets, community events, and community organizations. People were eligible to participate in the interview if they: (i) were a resident of one of the four focal neighborhoods, (ii) had purchased groceries in the past 3 months, and (iii) were 18 years or older. Interviews were approximately 10-15 minutes, were conducted in English or Spanish, and were completed in August 2022. Participants were compensated \$40 for their time.</p>
<p>Audit of stores that sell groceries</p>	<p>To generate comprehensive data on stores selling groceries in the four eastside L.A. neighborhoods, we conducted an on-the-ground audit of retail stores within the study boundary.</p> <p>To identify stores to audit, we started with a list of possible stores selling groceries in the study boundary that was generated from business listings and web searches. Other stores were identified by walking through all streets in the study boundary.</p> <p>All stores potentially selling groceries were visited by one researcher, who requested permission to audit the store from staff, and if granted, did so using an adapted version of the Nutrition Environment Measures Surveys (Glanz et al, 2007). The audits were completed using ArcGIS Survey 123, and captured data on the store name, location, types of foods sold, price of sample food products, and other store features including: chain or independent, accepting EBT/CalFresh, and opening times. In total, 269 stores selling grocery products were identified inside of the study boundary.</p>
<p>Data Axle</p>	<p>Some data on supermarkets and grocery stores came from Data Axle’s 2021 business database. Specifically we used this data to identify supermarkets and grocery stores that were adjacent to the study boundary, including store names, locations, and business codes (NAICS code).</p>
<p>Los Angeles Environmental Health Inspection data</p>	<p>Some data on retail food outlets that sell groceries came from the 2022 County of Los Angeles Environmental Health Inspection data (https://data.lacounty.gov/datasets/lacounty::public-health-los-angeles-county-restaurant-and-market-inspections/about). Specifically we used this data to identify stores that sell groceries that were adjacent to the study boundary. The data includes the name and location of stores categorized as retail food markets.</p>
<p>USDA CalFresh data</p>	<p>Data on the name and location of retail food outlets that accept CalFresh came from the USDA’s “SNAP Retail Locator” (https://www.fns.usda.gov/snap/retailer-locator).</p>
<p>findhelp.org</p>	<p>Some data on food assistance providers came from findhelp.org, who provide a free search and referral platform to connect people seeking help with local free and reduced-cost programs. In December 2020, findhelp.org shared their database of L.A. County food assistance providers. The data used in this study includes the name and location of food assistance programs within and adjacent to the study boundary.</p>

Los Angeles Regional Food Bank	Some data on food assistance providers came from the Los Angeles Regional Food Bank (LARFB), which provides food to hundreds of food assistance providers and serves more than 800,000 L.A. County residents each month. In 2020, the LARFB shared the database of L.A. County food assistance providers to whom they provided food that year. The data used in this study includes the name and location of food assistance programs within and adjacent to the study boundary.
Government data on household units	Two sources of data were used to identify and locate household units in our study area: (1) Household parcel data from the LAC Office of the Assessor, which includes information on the number of household units located on each parcel. Data were updated in September 2022. (2) A public housing dataset from the L.A. County Housing Services Department, which lists the location of public housing programs in the county and the number of household units located in this housing.
American Community Survey (ACS)	The ACS is a dataset created by the U.S. Census Bureau, which is the premier source for detailed population and housing information in the United States. In this study we used ACS data on the demographics of census tracts and neighborhoods in our study boundary.

Data Analysis

Qualitative analysis of resident interviews

Audio recordings of the 31 interviews were professionally transcribed into written text and translated into English (if conducted in Spanish). Transcripts were reviewed by two independent coders to identify key topics. Emerging themes were identified, analyzed, and interpreted via thematic analysis. Exemplary quotes representing each theme were selected for inclusion in the report.

A sample of 30 is more than enough to identify the key topics in interviewees' minds (Morgan et al., 2022). Indeed, no more new topics were identified after 20 interviews.

Retail food outlet audit

Data collected from the audit of retail food outlets was first cleaned and re-coded. Based on the research literature, supermarkets and grocery stores were coded as a retail store that sold all of the following: (i) two or more types of fresh vegetables, (ii) two or more types of fresh fruit, and (iii) at least one type of grain (bread, pasta, rice, tortillas, or flour). Data were then analyzed using descriptive statistics to summarize counts and percentages of certain types of store features, and to compare differences in features between types of stores.

Grocery access in 15-minute walkable cities

A “15-minute city” is a geography where residents can easily (within approximately 15 minutes of their home) get access to key services and facilities they need in their day-to-day lives (Allam et al., 2022). We examined access to groceries within a 15-minute walkable city: i.e., places that sell groceries that people can reach within a 15-minute walk of their home.

For each of the 55,330 households in the four eastside L.A. neighborhoods that make up our study boundary, we computed a radius around their home that can be reached within a 15-minute walk. This is based on the real street network, land use patterns, walking speed, and advanced spatial analysis. Once the geography boundary of the 15-minute walkable city was defined for each household, we identified and counted the different types of food outlets within this radius.

(i) **To determine each household’s access to specific types of stores** (i.e., supermarket and grocery stores, stores that sell groceries, stores that accept CalFresh, and food pantries), we computed the number of each type of store within their 15-minute walkable city radius. Typically, to identify stores within the geography of the study boundary (Boyle Heights, City Terrace, El Sereno, and Lincoln Heights), we relied on data from our study audit of retail stores within this boundary. But, because some households’ 15-minute walkable cities extend beyond our study boundary, we drew on other data sources to identify stores located outside of this boundary. Specifically:

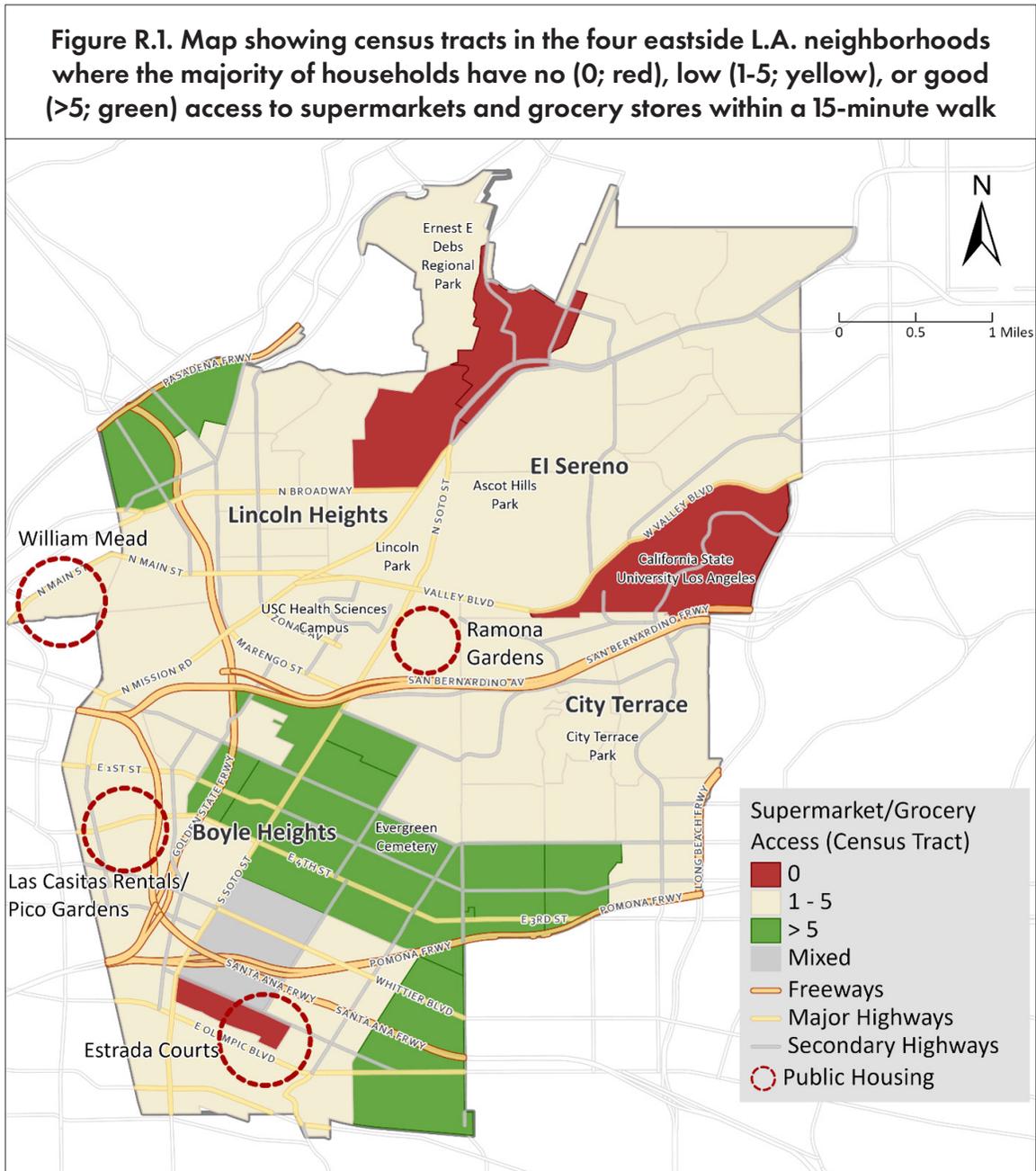
- **Access to supermarkets and grocery stores:** Within the study boundary, data on 36 supermarkets/grocery stores came from our audit (i.e., stores identified as selling 2+ types of fresh fruit, 2+ types of fresh vegetables, and at least one type of grain product; bread, pasta, rice, tortillas, or flour). Beyond our study boundary, we used Data Axle’s 2021 business listing to identify any other businesses categorized as supermarkets or grocery stores.
- **Access to stores selling groceries:** Within the study boundary, data on 269 stores selling groceries came from our audit. Beyond our study boundary, we used L.A. County’s Environmental Health Inspection data to identify other retail businesses selling food and categorized as retail food markets.
- **Access to stores that accept CalFresh:** Within and beyond the study boundary, we used the USDA’s “SNAP Retail Locator” to identify stores accepting CalFresh.
- **Access to food pantries:** Lists of food banks and pantries from findhelp.org and Los Angeles Regional Food Bank were first matched and merged. From this list, 58 organizations fell within the geography of our 15-minute walkable cities for residents in the four eastside L.A. neighborhoods. An online audit confirmed that 45 organizations were operational in the latter part of 2022, and these were used to compute access to food pantries in the 15-minute cities. Of note, we do not have data on any restrictions these organizations have in terms of the clients they serve (e.g., only families with children, or adults 65 years and up), and we may miss programs that are active during narrow time periods (e.g., summer meal programs). Therefore, these factors cannot be accounted for in our analyses of resident access to food pantries.

(ii) **To compare demographics of residents across areas with different access to supermarkets and grocery stores**, we used data from the ACS to characterize the demographics of census tracts in our study boundary, and examined differences in demographics based on household supermarket access in each census tract.

The first step was to classify census tracts in the study boundary into one of the following categories that reflect supermarket and grocery access (also represented as a map in **Figure R.1**):

Census Tract Category	Definition
Majority of households with no access (0 stores)	more than 50% of household units in the census tract had access to zero (0) supermarkets/grocery stores in a 15-minute walkable city
Majority of households with low access (1-5 stores)	more than 50% of household units in the census tract had access to between 1 and 5 supermarkets/grocery stores in a 15-minute walkable city
Majority of households with good access (5+ stores)	more than 50% of household units in the census tract had access to more than 5 supermarkets/grocery stores in a 15-minute walkable city
Mixed	No dominant level of access to supermarkets/grocery stores
Not a complete census tract	N=7 census tracts were excluded because they were not completely covered by our study area boundary

Note: Sensitivity analyses were conducted to establish confidence in the threshold of 50% to determine the dominant food access category



The second step was to compare the census tract demographics across the three categories of census tracts with differing supermarket and grocery store access (example in **Table R.2**).

Table R.2 Examples of census tract demographics compared across categories of census tracts with different levels of access to supermarkets/grocery stores							
Census tract category of supermarket access	# census tracts	Median income (\$)	% Hispanic/Latino	% Asian	% bachelor's degree +	% no personal vehicle	% un-employed
Majority of households with no access (0)	4	60,939	79	12	23	8	11
Majority of households with low access (1-5)	37	49,412	83	10	16	14	8
Majority of households with good access (5+)	14	50,675	96	1	10	17	7

Note: Statistics are the weighted mean (average) of the census tracts

