Searching for Markets: The Geography of Inequitable Access to Healthy & Affordable Food in the United States
The CDFI Fund invests in and builds the capacity of community-based, private, for-profit and non-profit financial institutions with a primary mission of community development in economically distressed communities. These institutions – certified by the CDFI Fund as community development financial institutions or CDFIs – are able to respond to gaps in local markets that traditional financial institutions are not adequately serving. CDFIs provide critically needed capital, credit and other financial products in addition to technical assistance to community residents and businesses, service providers, and developers working to meet community needs.

For more information about the CDFI Fund and its programs, please visit the Fund’s website at: http://www.cdfifund.gov.

The Reinvestment Fund (TRF), a national leader in the financing of neighborhood revitalization, has invested $1 billion in mid-Atlantic communities since 1985. As a CDFI, TRF finances projects related to housing, community facilities, supermarkets, commercial real estate and energy efficiency. It also provides public policy expertise by helping clients create practical solutions and by sharing data and analysis via www.policymap.com.

Opportunity Finance Network (OFN), the leading network of private financial institutions, creates growth that is good for communities, investors, individuals, and the economy. Members of OFN are community development financial institutions (CDFIs) that deliver responsible lending to help low-wealth and low-income communities join the economic mainstream. More information is available at: www.opportunityfinance.net.
Financing the construction of new supermarkets and the expansion of existing stores has emerged as a strategy for increasing access to sources of healthy food. The Pennsylvania Fresh Food Financing Initiative (FFFI) used strategic financing as a mechanism for attracting supermarkets to distressed communities and for assisting small stores in expanding or upgrading their facilities throughout Pennsylvania. The FFFI program, which was managed by The Reinvestment Fund (TRF), serves as a model for Community Development Financial Institutions (CDFIs) seeking to establish and operate programs.

In an effort to help CDFIs build their capacity to finance healthy food options, the U.S. Department of the Treasury’s Community Development Financial Institutions Fund (CDFI Fund) established the Financing Healthy Food Options track. This program, managed by Opportunity Finance Network (OFN), offers training, information and technical assistance, and provided funding for this Limited Supermarket Access (LSA) Study. The LSA study is a tool to help investors and policymakers identify areas with both inadequate access to healthy food and sufficient market demand for food retail across the continental United States.

What is a Limited Supermarket Access area?

A Limited Supermarket Access (LSA) area is one where the residents must travel significantly farther to reach a supermarket than the “comparatively acceptable” distance traveled by residents in well-served areas. TRF defines “comparatively acceptable” as the distance that residents of well-served areas (block group with incomes greater than 120% of the area’s median income) travel to the nearest supermarket. TRF established 13 benchmark classifications and compares areas to those that share similar population density and car-ownership rates. There are a total of 1,519 LSA areas across the continental U.S. including 18,630 block groups. LSA areas range in size and density, with the average LSA area measures 6.4 square miles and having a population of 9,000 people.

Where are Limited Supermarket Access areas?

All of the lower 48 states and the District of Columbia have at least one LSA area. LSA areas exist in large and small cities, rural areas and small towns throughout the U.S. Below we highlight some of the places with pronounced LSA problems. We selected the top ten places using two criteria:

1. Percentage of total population living in LSA areas: This variable measures the size of the population living in the LSA area as a percentage of the total population in the geographic area. It highlights the relative magnitude of the LSA problem regardless of income status; and

2. Percentage of LSA area population living in low-income block groups: This variable measures the extent to which the LSA problem is located in low-income areas. It calculates the percentage of LSA area population living in block groups where the median household income is at or below 80% of the area median income. It highlights where the LSA burden is felt more strongly in low-income areas.
Why did TRF perform this study?
TRF created a tool for assessing need and measuring unmet demand for food in an effort to expand our work, inform local and national policymakers and support the CDFI community. Our goal is to create a valid and reliable measure of existing food access and identify underserved communities throughout the nation. TRF’s methodology is built on our belief that reducing inequitable access to supermarkets in underserved communities is both a compelling public policy goal and a market opportunity for retailers.

Why does the analysis use supermarkets as a proxy for access?
When we look at availability (consistency in access), variety (diversity of products) and price, supermarkets consistently have shown in various research studies to be the most reliable source of access to healthy foods. Therefore, TRF uses supermarkets as our proxy for access. Farmers’ markets, local farm stands and small stores can also be an adequate source of healthy food, particularly in rural areas, relatively prosperous areas, immigrant communities, or where stores have received targeted assistance to provide a wider selection of healthy food items, but there is no national data source on alternative food sources. Therefore, there is no way of knowing the extent to which these sources are available (or are seasonal or have limited hours of operation), have consistency in variety or compare in price to supermarkets.

Table 1: LSA area ranking by scale of problem and burden on low-income people

<table>
<thead>
<tr>
<th>Rank</th>
<th>States</th>
<th>Cities with population greater than 500,000</th>
<th>Cities with population between 250,000 and 500,000</th>
<th>Cities with population between 100,000 and 250,000</th>
<th>Cities with population between 50,000 and 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pennsylvania</td>
<td>Washington, DC</td>
<td>Cleveland, OH</td>
<td>Richmond, VA</td>
<td>Camden, NJ</td>
</tr>
<tr>
<td>2</td>
<td>Rhode Island</td>
<td>Baltimore, MD</td>
<td>Kansas City, MO</td>
<td>Knoxville, TN</td>
<td>Trenton, NJ</td>
</tr>
<tr>
<td>3</td>
<td>Louisiana</td>
<td>Philadelphia, PA</td>
<td>St. Louis, MO</td>
<td>Syracuse, NY</td>
<td>Gary, IN</td>
</tr>
<tr>
<td>4</td>
<td>Connecticut</td>
<td>Dallas, TX</td>
<td>Newark, NJ</td>
<td>Baton Rouge, LA</td>
<td>Lawrence, MA</td>
</tr>
<tr>
<td>5</td>
<td>Illinois</td>
<td>Milwaukee, WI</td>
<td>Buffalo, NY</td>
<td>New Haven, CT</td>
<td>Youngstown, OH</td>
</tr>
<tr>
<td>6</td>
<td>Ohio</td>
<td>Detroit, MI</td>
<td>Tulsa, OK</td>
<td>Rochester, NY</td>
<td>Waukegan, IL</td>
</tr>
<tr>
<td>7</td>
<td>West Virginia</td>
<td>Memphis, TN</td>
<td>Bakersfield, CA</td>
<td>Des Moines, IA</td>
<td>Albany, NY</td>
</tr>
<tr>
<td>8</td>
<td>Tennessee</td>
<td>Boston, MA</td>
<td>Pittsburgh, PA</td>
<td>Hartford, CT</td>
<td>Schenectady, NY</td>
</tr>
<tr>
<td>9</td>
<td>New York</td>
<td>Nashville, TN</td>
<td>Cincinnati, OH</td>
<td>Savannah, GA</td>
<td>Daytona Beach, FL</td>
</tr>
<tr>
<td>10</td>
<td>Maryland</td>
<td>Louisville, KY</td>
<td>St. Paul, MN</td>
<td>North Charleston, SC</td>
<td>Decatur, IL</td>
</tr>
</tbody>
</table>
Observations: The Top Ten List:
- Of the top-10 states, five (PA, RI, CT, NY, MD) are on the east coast. Louisiana is the farthest west of all the states on the list.
- The 40 cities listed on the four top-10 categories come from 24 different states and from the District of Columbia.
- Of all the top ranked cities, 35% are located in the Northeast, 30% in the Midwest, 32.5% in the South and 2.5% in the West (US Census Regions).
- Of all states, New York has the most cities appearing in top-ten lists (Buffalo, Syracuse, Albany, Rochester and Schenectady). New Jersey has the second most cities with three (Newark, Camden and Trenton).

This study does not include research on why some places exhibit a more significant LSA problem than others, such as in the case of older industrial cities in the Northeast and Midwest where the LSA problem is more pronounced than in newer cities throughout the West. There are numerous factors that might explain these differences and additional research is required to identify them.

Who lives in Limited Supermarket Access areas?
Approximately 24.6 million people, representing 8% of the total U.S. population live in LSA areas. Residents living in LSA areas are more likely to be low-income (46% versus 29%) and of a minority race (39% versus 28%). LSA areas range in terms of total population and income levels of residents.

What are your odds of living in an LSA area?
- If you are Black, non-Hispanic you are 2.49 times more likely to live in an LSA area than if you are White, non-Hispanic.
- If you are Hispanic, you are 1.38 times more likely to live in an LSA area than if you are White, non-Hispanic.
- If you live in a low-income block group, you are 2.28 times more likely to live in an LSA area than if you do not live in a low-income block group.
- Your age does not appear to influence whether or not you are likely to live in an LSA area.

Are all Limited Supermarket Access areas created equal?
LSA areas can differ in many ways; two economic ways TRF differentiates LSA areas are relative to the unmet demand for food (also known as leakage) and by whether or not the area has an existing store within its boundaries. After determining LSA areas, TRF assesses the area’s market potential to support a new store by calculating area leakage. We determine leakage using data on existing store locations and annual sales reported for each store as compared with estimated resident expenditures on food. Knowing where these stores are and how much demand is captured by existing stores is important when considering if attracting a new supermarket is a viable strategy.

LSA areas vary by estimated leakage amounts. In some LSA areas it appears that there is not enough demand to support a supermarket. TRF estimates that it requires approximately $12 million in current unmet food spending power to support a new store. Based on that assumption, Table 2 shows that 747 LSA areas may be able to support at least one new supermarket. Of these, 419 are in the $12 to $24 million leakage range and 328 are highest range, with more than $24 million in leakage. Table 2 also shows that there are 772 areas with less than $12 million of unmet demand (346 with less than $6 million of leakage and 426 in the $6 to $12 million range). In these lower leakage LSA areas, there may be opportunities for supporting new small stores, expanding existing stores to broaden their offerings and testing alternative models. Such models may include farmers’ markets, community-supported agriculture programs and other ways to improve access.
Diagram 1: Framework for Evaluation

Is the area of interest in a Limited Supermarket Access area?

No

No intervention needed

Yes

What is the level of leakage in the Limited Supermarket Access area?

< $6 million

Is a small store present?

No

Cannot support a new store; consider alternative sources of fresh food, such as farmers’ markets

Yes

Cannot support a new store; work with existing stores on product availability

$6 to 12 million

Is a small store present?

No

Area can potentially support small new store*

Yes

Can potentially support small new store or expand size, products in existing stores; if new store, consider the economic impact on small stores*

$12 to 24 million

Is a small store present?

No

Area can potentially support full-service stores*

Yes

Area can potentially support a full-service supermarket; consider the economic impact of a new store on existing small stores*

>$24 million

Is a small store present?

No

Area can potentially support multiple full-service supermarkets; consider the economic impact of a new store on existing small stores*

Yes

Area can potentially support multiple full-service stores*

*If deciding between multiple areas that meet a new store recommendation, view the LSA Access Scores at policymap.com to further prioritize.
Why are these results important?
These findings provide insight into potential areas for food access interventions. These results go beyond the identification of LSA areas by estimating the LSA areas’ total and unmet demand for food. The results are available in terms of both dollars and store square feet on PolicyMap. Taken together, the results provide a way to identify and assess investment opportunities.

Given that 80% of LSA areas are within 2011 Community Development Block Grant (CDBG) eligible census tracts and 60% are within New Markets Tax Credit (NMTC) eligible areas, there are significant resources that could be targeted to interventions in these areas.

What does the access score measure?
Access scores measure the required reduction in distance necessary for the block group residents to travel to food stores to meet the “comparatively acceptable” benchmark distance. People living in areas with the highest access scores have to travel disproportionately farther distances to stores. TRF has uploaded LSA access scores to www.policymap.com, offering another way to assess an area’s need for food.

What do I do with these results?
Review the findings for your state, city or local community at www.policymap.com before devising a strategy or implementing a plan. The national story is useful for establishing the scale of the problem and highlighting, in a broad sense, places of greatest need for intervention. The PolicyMap tool allows you then to evaluate LSA areas individually, considering any of a range of variables from local unmet demand to the particular demographics of the communities themselves. We offer Diagram 1 as a way to characterize LSA areas and determine appropriate intervention strategies.

Table 2: Number and Percentage of LSA areas in the United States

<table>
<thead>
<tr>
<th></th>
<th>Up to $6 million</th>
<th>$6 million to $12 million</th>
<th>$12 million to $24 million</th>
<th>More than $24 million</th>
</tr>
</thead>
<tbody>
<tr>
<td># of LSA areas</td>
<td>346</td>
<td>426</td>
<td>419</td>
<td>328</td>
</tr>
<tr>
<td>% of all LSA areas</td>
<td>23%</td>
<td>28%</td>
<td>27.5%</td>
<td>21.5%</td>
</tr>
</tbody>
</table>