



THE REINVESTMENT FUND



# Food Access Market Analysis for Maryland

Prepared by  
The Reinvestment Fund,  
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In Maryland, limited access to nutritious food is a statewide issue that affects both urban neighborhoods and rural communities. In low- and moderate-income communities in particular, the absence of supermarkets results in limited access to healthy food options. Although the presence (or absence) of a supermarket alone is not enough to change individuals' diets or reduce obesity rates, a new store can give individuals the opportunity to make these changes. Increasing access to healthy food can also be part of a comprehensive approach to community development that works to create the assets, amenities and resources that Maryland's communities and families need to thrive. The following are results from a study by The Reinvestment Fund (TRF) aimed at understanding the inequity of access in Maryland and providing a framework for the State as it works to address the issue.

### WHY STUDY FOOD ACCESS

TRF's review of research has shown that supermarkets generally offer the greatest variety of products, brands and low-cost options, particularly when compared to smaller convenience stores. Thus, adding a supermarket to a community can make it more cost effective for households to purchase healthy foods, either by reducing the cost of travel to supermarkets outside of the community or by offering lower prices for healthy food items than existing small food stores. Investing in existing grocers can also improve access, as operators can expand their product selection and reduce operating costs through upgrades and investments in equipment and facilities.

Providing Marylanders with greater access to healthy, affordable food will improve the food environment for residents as well as bring jobs and economic development to the areas. Supermarkets and grocery stores can stimulate local economies and serve as economic anchors to lower-income areas, sparking complementary development and neighborhood revitalization in the areas that need it most.

Through our experience as a lender, TRF has found that urban and rural areas share the common barrier of higher costs tied to developing and operating grocery businesses in low-income communities. In cities, these costs are incurred from site assembly, workforce recruitment, training and security costs that can be significantly different than the cost borne by stores in suburban markets. Other challenges include crime and/or the perception of crime and inadequate data to measure the purchasing power of the community and their product preferences. Additionally, as supermarkets are low-margin businesses, independently-owned grocers that operate in small towns and urban areas have limited equity to invest in their store's expansion or rehabilitation. Often smaller, independent entrepreneurs cannot access conventional credit on reasonable terms and conditions.

Access to healthy food can also be part of a comprehensive approach to community development that works to create the assets, amenities and resources that Maryland's communities and families need to thrive.





In December 2011, Advocates for Children and Youth, the Maryland Retailers Association and The Food Trust convened the *Maryland Fresh Food Retail Task Force*, a public-private partnership of leaders from the grocery industry, state and local governments, as well as the community and economic development, public health and civic sectors. Building upon the work of several Maryland organizations and agencies, the Task Force developed 10 recommendations for state and local public policies that will improve the availability of healthy, affordable food in underserved areas. One of these recommendations is to develop a new or expand an existing flexible financing program that provides grants and loans to support the development, renovation and expansion of grocery stores and other stores in underserved communities that carry or would want to carry healthy foods.

The first step to creating a financing program is developing a framework to understand the extent of the problem, opportunities for intervention and the appropriate strategy to deploy in various markets. In early 2013, the Maryland Department of Housing and Community Development (DHCD) awarded funds to TRF to assess access to food retail for communities across Maryland and to highlight areas of opportunity. This focused work draws from TRF's study *Searching for Markets: The Geography of Inequitable Access to Healthy and Affordable Foods in the United States*, funded by the US Department of Treasury's Community Development Financial Institutions Fund as a tool for CDFIs. The report's findings and results for communities around the nation are accessible to the public from TRF's website and through TRF's PolicyMap.com site.<sup>1</sup>

Within the report, TRF identifies Limited Supermarket Access (LSA) areas – clusters of block groups with similar levels of inequitable access and describes the attributes of these areas. Summary data highlights the level of inequity, the estimated population living within the area and measures consumer demand for food. The analysis also estimates “leakage” – the food

**The impacts of financing healthy food access projects are significant. Based on studies conducted by TRF and others, supermarket development can:**

- Increase job opportunities
- Improve access to fresh food at lower costs to the consumer
- Allow communities to capture and retain demand for food in their neighborhoods
- Improve surrounding real estate values
- Mitigate downward trends in local property values
- Increase tax revenues
- Serve as an anchor for other commercial development

dollars spent outside of a given area that could be potentially captured by a new or improved store. The estimated level of leakage provides a way to distinguish among the various LSA areas by highlighting areas that could support a new full-service supermarket or the expansion of an existing store. It also points to areas where providing other forms or means of food access may be a more viable strategy than a new or expanded store. TRF's LSA methodology takes into account population density and car ownership rates – two factors significantly influencing how far households can be expected to travel to shop for food. Our review of Trade Dimensions 2011 supermarket data showed that the average annual sales volume for full-service supermarkets was \$12 million. We use this number as a benchmark to consider when evaluating whether an LSA area has the required leakage to sustain a new store.

This Maryland assessment offers a statewide summary of findings as well as an in-depth look at priority areas in Prince George's County and the City of Baltimore as identified in partnership with DHCD and local government staff. The following is a summary of TRF's findings.

## UNDERSTANDING THE INEQUITY OF ACCESS IN MARYLAND

The average state has 8.6% of its population living in LSA areas, 42% of whom live in low-income census block groups.<sup>2</sup> Cross referencing the LSA areas with the 2010 Census data, however, shows that 602,845 or 9.6% of Marylanders live in LSA areas, of whom 48% live in low-income census block groups. When ranked by the percentage of the population that is both low income and living in an LSA area, Maryland ranks tenth in the nation. Maryland has 38 LSA areas consisting of 498 block groups across 13 counties<sup>3</sup>. The average *low access score* for the Maryland LSA areas is 57.

The LSA low access score is an indicator of disparity that measures how much farther a block group's population must travel to the nearest supermarket compared to benchmark distances established for non-low-income communities. If Maryland seeks to reduce the inequity in access that exists for residents of LSA areas, then the average distance traveled to a store would need to be reduced by 57%. LSA areas in Maryland had low access scores ranging from 45 to 75. Broken down, there are:

- 6 LSA areas with scores fell between 45 and 49
- 21 LSA areas with scores fell between 50 and 59
- 8 LSA areas with scores fell between 60 and 69
- 3 LSA areas with scores fell between 70 and 75

Of Maryland's LSA residents, 75% have low- or low-moderate-incomes. The problem is significantly pronounced in Baltimore. Baltimore ranks second in the nation among cities with a population greater than 500,000 for the percentage of the population living in LSA areas and the percent of the LSA population living in low-income areas. Baltimore has 184,075 residents living



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in LSA areas (representing 30% of the population), 86% of whom also reside in low-income areas.

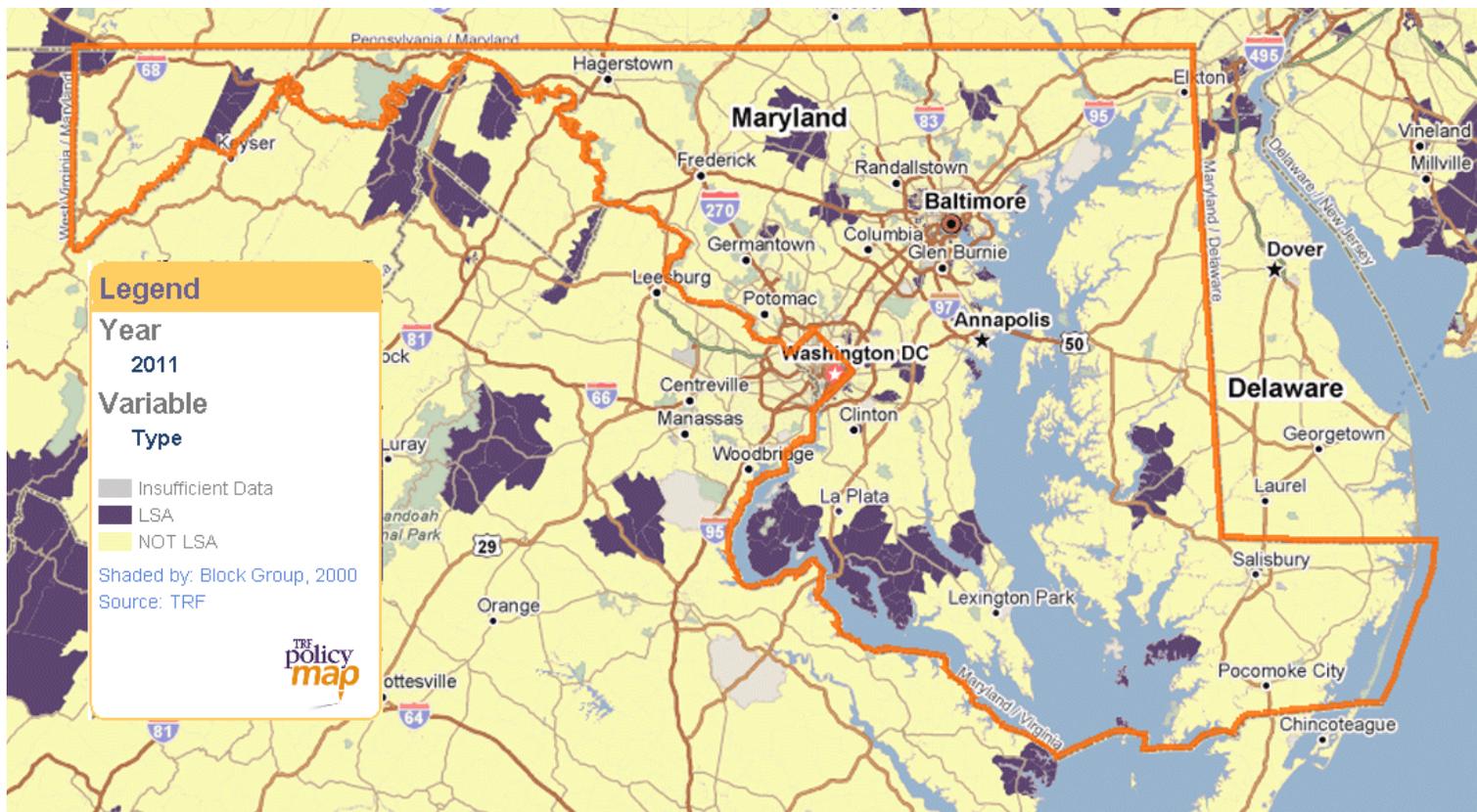
The combined leakage for Maryland is \$754.6 million, which indicates opportunities to support a mix of food access retail across the state. The average LSA leakage is \$26 million or 34,000 square feet. While the aggregate numbers tell part of the story, the real opportunities can be discerned by reviewing each LSA area separately. In LSA areas where the leakage is very small, there is a need to look at existing stores to expand their healthy food options. Where leakage is moderate, it may provide an opportunity to consider working with an existing operator to expand their store size or potentially support a new small store. Where the leakage is large, the LSAs represent better opportunities to support new supermarket developments. Lastly where LSAs cover an expansive geography and/or show unusually large leakage numbers, there might be opportunities for multiple operators to enter the market. Categorically, here is the breakout for Maryland:

- 3 LSA areas with less than \$6 million in leakage
- 8 LSA areas with greater than \$6 million in leakage but less than \$12 million
- 20 LSA areas with greater than \$12 million but less than \$24 million
- 7 LSA areas with greater than \$24 million in leakage

TRF's work in Maryland sought to guide the Task Force in a review of these various areas. Through this process, we were able to identify places where access is a problem, particularly for low-income areas, and where

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Map 1: Maryland Limited Supermarket Access (LSA) status, as of 2011



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investment can respond to unmet demand. TRF prepared a ranking of the top 25 places in Maryland based on the number of residents living in LSA areas (see Table 1). This ranking also includes figures for the percentage of residents living in an LSA area and the percentage of LSA area residents in low-income areas. To determine priority areas, TRF filtered LSA areas to identify those that may likely resolve the problem on their own due to increased demand and higher household income, as well as areas where interventions may be necessary to improve market conditions. Baltimore was one of the first areas targeted for action, due to the size of its low-income LSA area population. Other areas that caught the attention of TRF and its partners, due to their populations living in LSA and low-income areas, included the communities of College Park, Glassmanor, Landover and Suitland/Silver Hill in Prince George’s County.

Other places in western Maryland also ranked high. Frostburg in Allegany County in northwestern Maryland has an LSA population where 100% of the residents live in low-income areas. The LSA area containing Frostburg shows leakage of \$23.6 million and low access score of 74. Existing food retail is concentrated on the Interstate 68 and Route 220 corridors that border the

City or Town	County	Total Population (2010)	Population in LSA	% of Pop in LSA	% of LSA Pop in Low Income Area	Rank
Baltimore	Baltimore City	620,956	184,075	30%	86%	1
Hagerstown	Washington	36,488	19,455	53%	74%	2
Lochearn	Baltimore	25,345	16,463	65%	60%	3
Severn	Anne Arundel	42,193	16,441	39%	5%	4
Annapolis	Anne Arundel	28,629	14,655	51%	22%	5
Suitland-Silver Hill	Prince George's	29,959	13,330	44%	100%	6
College Park	Prince George's	26,934	13,243	49%	91%	7
Lansdowne-Baltimore Highlands	Baltimore	15,428	12,630	82%	81%	8
Clinton	Prince George's	24,485	9,165	37%	0%	9
Glen Burnie	Anne Arundel	41,610	8,836	21%	12%	10
Upper Marlboro	Prince George's	29,972	8,531	28%	0%	11
Oxon Hill-Glassmanor	Prince George's	34,646	8,253	24%	100%	12
Arnold	Anne Arundel	23,228	7,502	32%	0%	13
Salisbury	Wicomico	21,409	6,934	32%	58%	14
Damascus	Montgomery	12,870	6,830	53%	0%	15
Hillcrest Heights	Prince George's	17,014	6,804	40%	59%	16
Bowie	Prince George's	38,872	6,251	16%	0%	17
Bowleys Quarters	Baltimore	6,100	6,100	100%	0%	18
Frostburg	Allegany	5,340	5,340	100%	100%	19
Landover	Prince George's	21,303	5,297	25%	100%	20
Sykesville	Carroll	5,276	5,276	100%	17%	21
Selby-on-the-Bay	Anne Arundel	4,703	4,703	100%	0%	22
Woodlawn	Baltimore	37,867	4,340	11%	25%	23
Dundalk	Baltimore	63,605	4,170	7%	100%	24
Fallston	Harford	8,642	4,064	47%	0%	25

**Table 1: Top 25 LSA Areas Based on LSA Population**

The columns labeled % of Pop in LSA and % of LSA Pop in Low Income Area use a color ramp to illustrate high (red), moderate (yellow), and low (green) values among Maryland geographies. The intent is to help readers quickly identify which geographies not only have a large LSA population, but also have a large share of their population in LSA areas and/or have predominantly low-income populations in LSA areas.

LSA to its north and east. As a result, the core of the LSA area, Frostburg City which has a denser population and a lower car ownership rate than its surrounding areas has more difficulty accessing these stores. Hagerstown in Washington County also has a densely populated urban core, where 74% of the LSA area residents are in low-income areas. There appear to be no full-service supermarkets in the urban center of the city. Leakage in this LSA area is estimated at \$32.9 million.

Meanwhile, Salisbury in Wicomico County has 58% of its LSA area residents in low-income areas. There are no full-service supermarkets in the city's densely populated northern sections. Leakage here is estimated at \$10.6 million, indicating opportunities for a small store or for different types of food interventions to increase access to healthy foods rather than a full-service supermarket.

For the entire state of Maryland, TRF identified the areas of need that are also areas designated with existing economic development incentives or resources that may be useful for attracting operators. The review specifically looked at Maryland areas designated as Sustainable Community Areas<sup>4</sup>, Urban Enterprise Zones<sup>5</sup>, State Priority Funding Areas<sup>6</sup> or Main Street Areas<sup>7</sup>. We also evaluated whether the areas were HUD Community Development Block Grant (CDBG) eligible areas. Communities were excluded from further analysis if they exhibited conditions trending towards market resolution of food access issues or did not show sufficient leakage. For example:

- Hillcrest Heights in Prince George's County met income and LSA eligibility criteria but did not have enough leakage to justify further investigation, or
- Arnold in Anne Arundel County has 32% of its population in a LSA area but 0% of the population live in low-income block groups, or
- Damascus CPD in Montgomery County which has 53% of its population living in a LSA area but 0% of the population live in low-income block groups, and according to census data the population is continuing to grow.

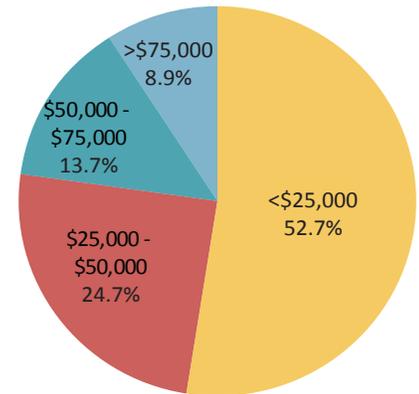


**PRIORITY AREA: BALTIMORE CITY**

Together with its partners at DHCD, Baltimore City Planning Department and the Center for a Livable Future at the Johns Hopkins’ Bloomberg School of Public Health, TRF identified areas in Baltimore where Baltimore Food Deserts<sup>8</sup> and LSA areas intersect. From these areas, the Task Force agreed to focus attention on Inner East Baltimore (IEB) and Inner West Baltimore (IWB), where there is a combined grocery retail demand of \$82.3 million and a combined leakage of 78,000 square feet of grocery retail space. IWB’s total demand was estimated at \$35.6 million and its leakage was estimated at 46,000 square feet. Meanwhile, IEB’s total demand was estimated at \$46.7 million and its leakage was estimated at 32,000 square feet. As of July 2013, IWB is not served by any full-service supermarkets.

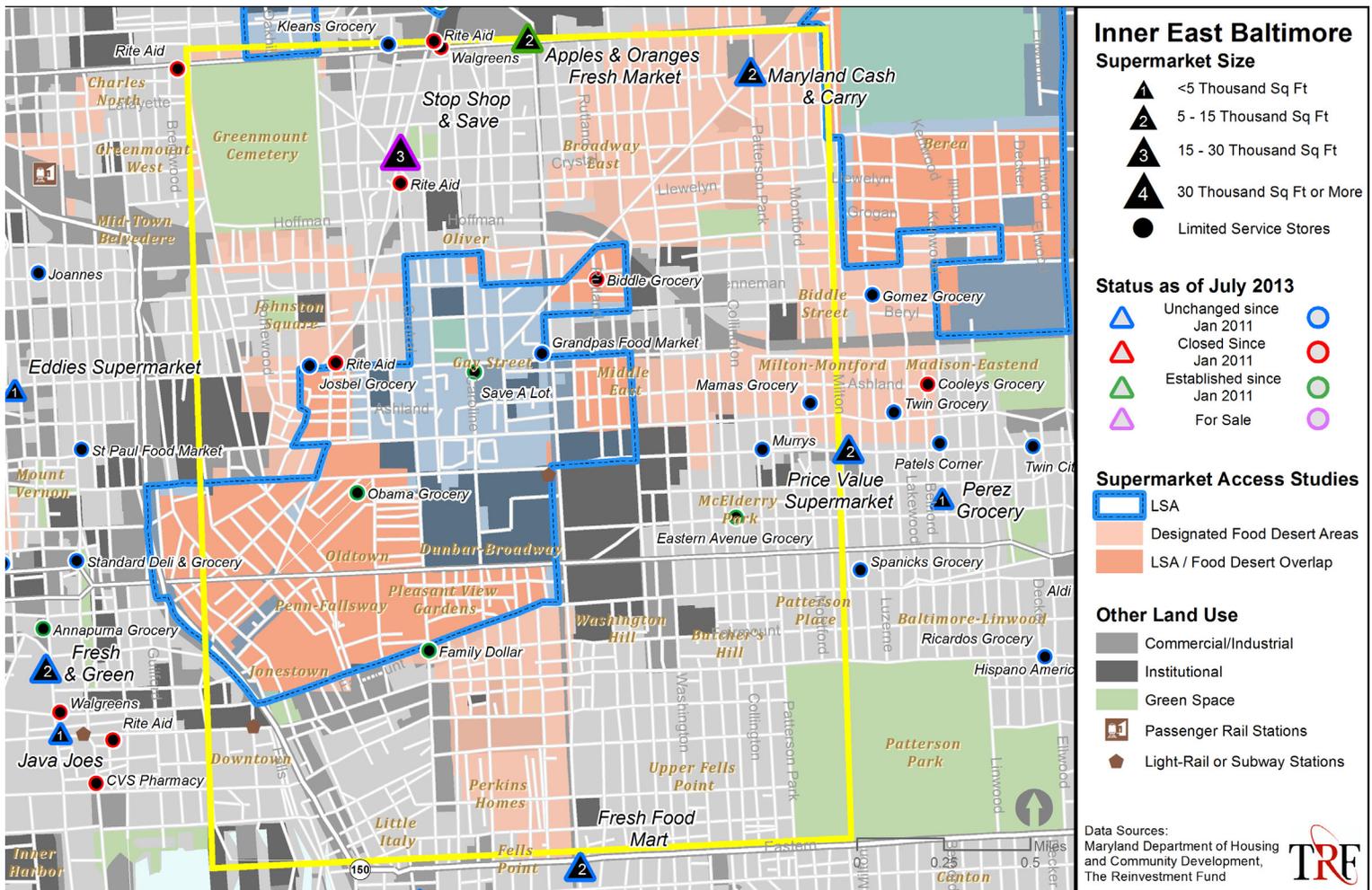
IWB is home to an estimated 9,712 households, with a population density of 16,488 persons per square mile. More than three-quarters (77.4%) of all households in this area have incomes of \$50,000 or less, with 52.7% of households earning less than \$25,000 annually. Furthermore, more than

**Inner West Baltimore: Household Income Brackets**



**Table 2: Analysis Results for LSAs in Baltimore City, MD**

Limited Supermarket Access (LSA) Name	Population Weighted LSA Score	Number of Block Groups in LSA	Est. Grocery Retail Leakage Amount (million \$)	Est. Grocery Retail Leakage Rate (%)	Est. Total Grocery Retail Demand (million \$)	Est. Total Grocery Retail Sq Ft Demand	Est. Number of Grocery Retail Sq Ft Leaked	Number of Stores in LSA	Population (2010)
LSA Baltimore City, Maryland 8	56	77	62.9	89	71	125,000	11,000	11	51,837
LSA Baltimore City, Maryland 10	55	19	22.1	87	25.3	44,000	39,000	6	17,394
LSA Baltimore City, Maryland 3	63	11	17.4	94	18.5	33,000	30,000	2	11,692
LSA Baltimore City, Maryland 1	75	13	16.9	100	16.9	30,000	30,000	0	12,713
LSA Baltimore City, Maryland 13	50	11	16.5	82	20	35,000	29,000	2	14,389
LSA Baltimore City, Maryland 6	57	13	15.8	91	17.4	30,000	28,000	3	11,557
LSA Baltimore City, Maryland 2	63	9	14.9	100	14.9	26,000	26,000	0	12,209
LSA Baltimore City, Maryland 7	56	19	13	73	17.8	31,000	23,000	1	14,077
LSA Baltimore City, Maryland 11	53	10	9	79	11.3	20,000	16,000	2	7,944
LSA Baltimore City, Maryland 4	61	3	6.2	100	6.2	11,000	11,000	0	4,184
LSA Baltimore City, Maryland 5	58	3	4.5	100	4.5	8,000	8,000	0	3,141
LSA Baltimore City, Maryland 12	52	6	4.4	89	4.9	9,000	8,000	0	3,438



Map 2: Designated LSAs and Baltimore Food Deserts in Inner East Baltimore (Investment Area B). Target Area is within square outlined in yellow, not in blue.

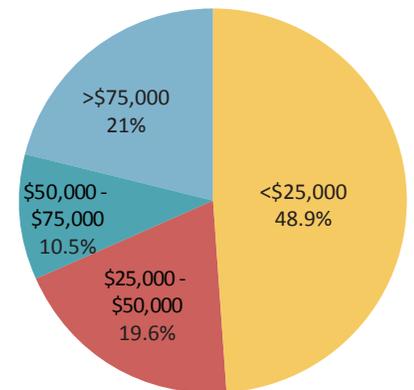
half (52%) of households in IWB do not own a vehicle, indicating that many residents in this area must travel to and from nearby groceries by other means.

IEB is slightly larger than WIB, with 12,687 households in 2011, at a population density of 17,616 persons per square mile. The percentage of households earning less than \$50,000 annually is 68.5%-- a rate almost 10 percentage points lower than that of IWB. Only 8.9% of IWB's households earned incomes exceeding \$75,000. These areas carry two important State revitalization designations – the Enterprise Zone and Sustainable Community Area – which may be helpful in attracting economic development investment. In addition, Baltimore has designated WIB and EIB as Food Dessert Areas. The best location for a new supermarket would be one that maximizes accessibility for households located in LSAs, while also reaching areas with enough leakage to sustain new or expanded operators.

#### PRIORITY AREA: PRINCE GEORGE'S COUNTY

TRF reviewed six LSAs in Prince George's County and similar to Baltimore, prepared reports summarizing the opportunities. One LSA (LSA District of Columbia 1) is significantly large in size and represents potentially three

#### Inner East Baltimore: Household Income Brackets



Limited Supermarket Access (LSA) Name	Population Weighted LSA Score	Number of Block Groups in LSA	Est. Grocery Retail Leakage Amount (million \$)	Est. % Grocery Retail Leakage Rate	Est. Total Grocery Retail Demand (million \$)	Est. Total Grocery Retail Sq. Ft. Demand	Est. Number of Grocery Retail Sq. Ft. Leaked	Number of Stores in LSA	Population (2010)
LSA District of Columbia 1 - District of Columbia 1 includes Suitland/ Silver Hill, Hillcrest Heights, and Oxon-Hill / Glassmanor	60	43	68	82%	82.4	145,000	119,000	4	57,999
LSA Prince George's County, Maryland 2 - Greater Upper Marlboro	59	5	19.2	97%	19.9	35,000	34,000	1	11,965
LSA Prince George's County, Maryland 4 - Bowie City	54	8	18	87%	20.8	37,000	32,000	1	14,098
LSA Prince George's County, Maryland 3 - Clinton	56	4	13.4	98%	13.7	24,000	24,000	0	9,165
LSA Prince George's County, Maryland 1 - College Park City	61	8	11.9	89%	13.3	23,000	21,000	1	15,803
LSA Prince George's County, Maryland 5 - Greater Landover	49	10	(51.5)	0%	30.6	54,000	(90,000)	5	20,332

**Table 3: Analysis Results for LSAs in Prince George’s County, MD**

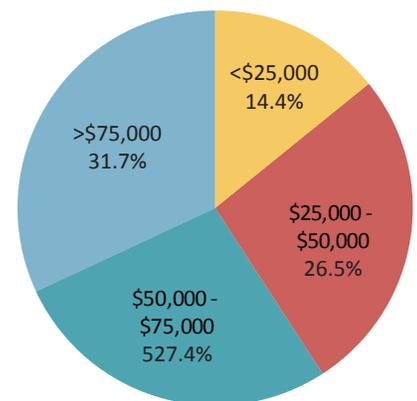
submarkets, so TRF prepared separate reports for each area. For example, the report highlights that the Suitland – Silver Hill area (SSH) has a total grocery retail demand estimated at \$20.3 million and its leakage is estimated at 34,000 square feet of grocery retail space. The target area contains one limited-service store and no full-service supermarkets.

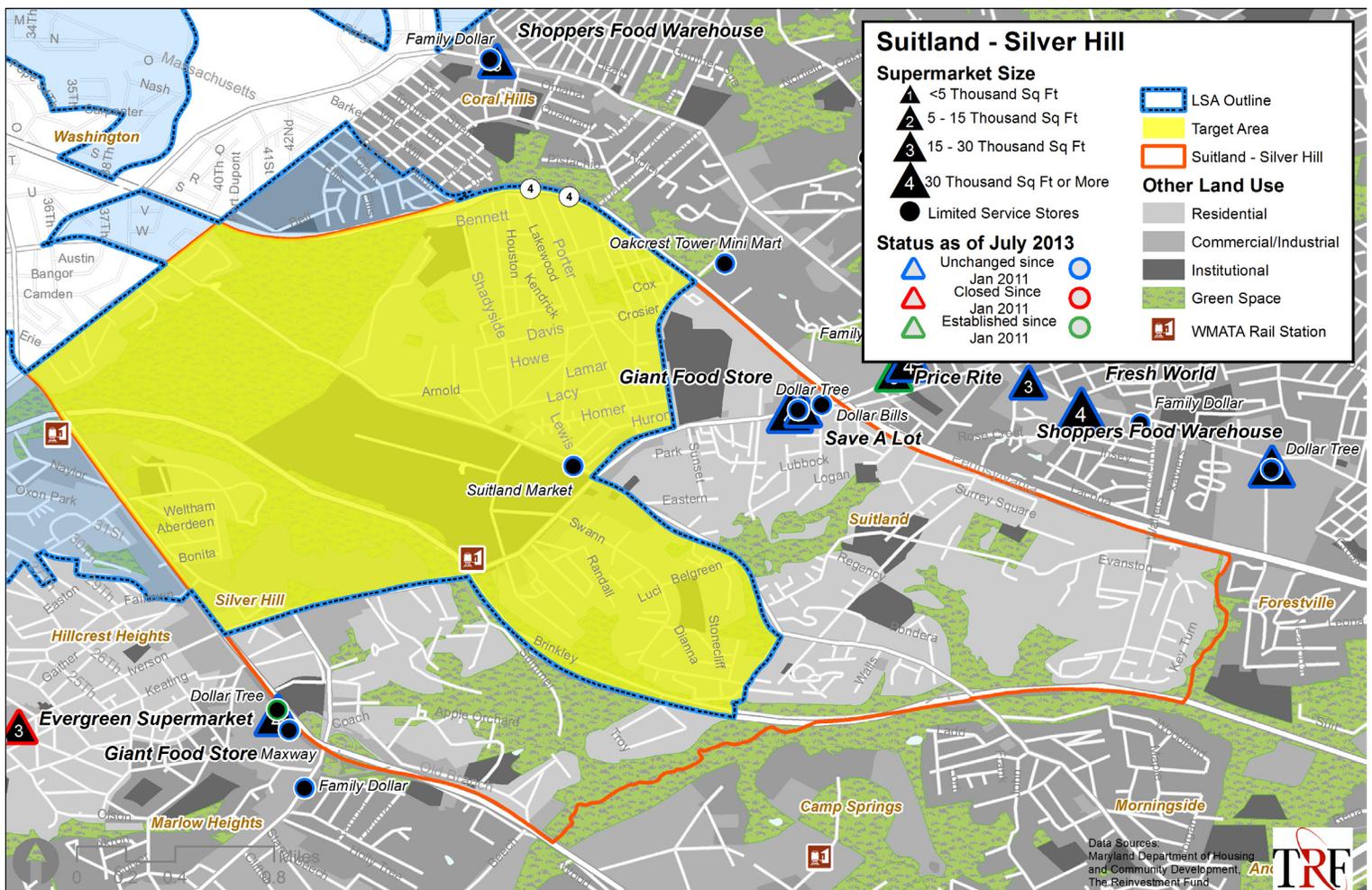
The SSH area was comprised of 5,126 households in 2007/2011 American Community Survey, with a population density estimated at 4,588 persons per square mile (about half as dense as the LSA of which it is a part). About 59% of households in SSH have incomes greater than \$50,000 and 85% of households owned at least one vehicle. There are also two major physical barriers in this LSA area: Suitland Parkway and Suitland Federal Center. Together these sites divide the LSA into northern and southern sections and increase the actual travel distance to stores for the areas residents, contributing to the LSA designation. The area contains sections that are designated as State Priority Funding Areas, Sustainable Community Areas and Urban Enterprise Zones.

**SUPPLEMENT RESEARCH PRODUCTS**

TRF produced five Supermarket Profile reports for areas in Baltimore City and Prince George’s County as well as five Huff reports to analyze opportunities

**Suitland - Silver Hill: Household Income Brackets**





Map 3: LSA & Target Area in Prince George's County's Suitland – Silver Hill

around specific sites within Baltimore. These reports included tabular data and maps that together summarize area demographics that might influence the expansion of an existing store or justification for a new store, as well as other indicators of supply of and demand for grocery-retail. The reports also illustrated the overlap of incentive areas with LSA designated areas. The goal of these reports is not only to illustrate the degree to which selected areas are underserved by grocery, but to help the state of Maryland and its partners identify opportunities within each study area to focus attention on where to invest in new or existing stores.

Here is an example of how these studies can be applied. A partner reviewing a supermarket profile report of the Suitland- Silver Hill target area could glean that nearly 59% of the residents in the target area (defined at the portion of the Suitland – Silver Hill community that intersects with the LSA area) earn at least \$50k per year, that over 85% of households own at least one personal motor vehicle, and that there is an estimated leakage of about 34,000 square feet. Most target area residents must drive or take a bus to access a full-service supermarket. Further review of the maps reveals that there is an Urban Enterprise Zone within the target area, immediately adjacent to block groups exhibiting grocery retail leakage between 1,001 and 5,000 square feet. The partner could then observe that within this UEZ there is an existing limited-service store. A Huff model analysis would reveal whether this store, if expanded, could adequately serve all LSA area residents, or whether investing in a new site would yield better results.

Combined, these analyses paint pictures of the obstacles residents face in accessing healthy food, the opportunities that exist to sustainably and economically improve supermarket access, and the comparative advantages of candidate locations in serving the largest number of currently underserved households.



## ENDNOTES

<sup>1</sup> For a summary of the methodology see: <http://www.trfund.com/wp-content/uploads/2013/07/LSAMethodology2011.pdf> or for the full report see: [http://www.cdfifund.gov/what\\_we\\_do/resources/SearchingForMarkets\\_Report\\_web\\_Low\\_%20Res.pdf](http://www.cdfifund.gov/what_we_do/resources/SearchingForMarkets_Report_web_Low_%20Res.pdf)

<sup>2</sup> We share state rankings with caution, as the differences among their composite rankings reflect not only the equity or inequity of access but also the degree to which that inequity impacts lower-income areas disproportionately.

<sup>3</sup> Some of these LSA areas cross into other states, thus a total of 629,394 residents live within Maryland's identified LSA areas.

<sup>4</sup> Sustainable Community Areas: In Maryland this program delivers added support for strengthening redevelopment initiatives, stimulating the local economy, and creating job opportunities.

<sup>5</sup> Urban Enterprise Zones: Provides income and property tax credits in Maryland. This program was established in the early 1980's to encourage targeted investment in economically distressed areas as measured by unemployment, poverty status, population decline, or property abandonment.

<sup>6</sup> State Priority Funding Areas: In Maryland, these are areas toward which the State directs funding for projects that stimulate local economic growth and development.

<sup>7</sup> Main Street Areas: A program under the Maryland Department of Housing and Community Development that aims to enhance or maintain the aesthetic, sustainability, and economic strength of traditional main streets and neighborhoods.

<sup>8</sup> Baltimore Food Deserts: Areas where the distance to a supermarket is more than ¼ mile, the median household income is at or below 185% of the Federal Poverty Level, over 40% of households have no vehicle available, and the average Healthy Food Availability Index score for supermarkets, convenience and corner stores is low (measured using the Nutrition Environment Measurement Survey). This definition is based on a study by the Johns Hopkins Center for a Livable Future (CLF) and the Baltimore City Department of Planning.

## THE REINVESTMENT FUND

**PHILADELPHIA**  
1700 Market Street, 19<sup>th</sup> floor  
Philadelphia, PA 19103  
TEL 215-574-5800  
FAX 215-574-5900

**BALTIMORE**  
3 East Read Street  
Baltimore, MD 21202  
TEL 410-783-1110  
FAX 410-637-8265

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