



Food Stamp Participation and Market Access in the District of Columbia

Carlos A. Manjarrez and Jessica Cigna

KEY FINDINGS

■ While the overall food stamp participation rate for the District of Columbia is high compared with other states, participation for certain groups, such as Asian, Hispanic, and elderly households, as well as working families, is relatively low.

■ Food stamp receipt in D.C. is highly concentrated. Eight neighborhood clusters have more than 2,000 food stamp households and account for 50 percent of the city's caseload.

■ The vast majority of markets authorized to accept food stamps in D.C. are small to medium grocery stores or convenience markets, stores that are known to be a less cost-effective option for many foods.

■ Approximately one in five food stamp households have no supermarket within a half-mile radius of their home, forcing many households to choose between shopping at smaller grocery stores with limited selection or investing more time and money to find a wider selection at competitively priced markets.

The Food Stamp Program is the leading program to help prevent hunger among low-income people in the United States. It is the largest of 15 domestic food and nutrition assistance programs administered by the U.S. Department of Agriculture's (USDA's) Food and Nutrition Service (FNS). In the District of Columbia, the Income Maintenance Administration (IMA) of the Department of Human Services administers the Food Stamp Program, managing a caseload of more than 45,000 households. This caseload adds up to more than 15 percent of all residents in the District of Columbia.¹ The District of Columbia, which has been recognized by FNS as having one of the highest participation rates in the country, managed food stamp benefits for more participants than nine states in 2004.²

Despite the size of the District of Columbia's Food Stamp Program, no studies have taken a focused look at the characteristics of the city's food stamp population. The District of Columbia is regularly included in national comparative assessments of the Food Stamp Program, but this "state"-level information doesn't provide the detail necessary for program monitoring within the city. To get a better look at food stamp participation for different groups of people and across different areas of the city, this brief examines administrative data provided by the IMA. The characteristics of food stamp recipients examined in this brief, such as age, ethnicity, household size, and location in the city, provide the summary information necessary for monitoring pro-

gram enrollment and for developing more strategic enrollment outreach. The profile of food stamp households also provides some of the population information necessary for developing targeted nutritional education campaigns.

In addition to profiling the city's food stamp population, this brief examines the relative access to grocery stores for food stamp households. This analysis of market access is done in two steps. First we profile the geographic distribution of stores that accept food stamps in the District of Columbia by listing the types of markets available to food stamp recipients in different areas of the city. Then we compare the location of larger grocery stores with the location of food stamp households in the District of Columbia. Combining the information in this way allows us to examine the distribution of grocery stores from the perspective of the food stamp households, providing a better understanding of the challenges associated with using food stamp benefits in different areas of the city.

The Data

Data for this brief are drawn primarily from IMA administrative records. The IMA provided food stamp recipient data from July 2004 that contained information for more than 90,000 Food Stamp Program participants. These data were examined using two primary geographic areas: wards, the eight political jurisdictions of the District of Columbia; and the 39 neighborhood clusters

defined by the D.C. Office of Planning in consultation with community organizers and citizens.³

The second source of data for this report, a comprehensive list of markets in the District of Columbia that are authorized to accept food stamps, was obtained from FNS in July 2005. These data list the name, location, and type of market (based on USDA-defined categories) of authorized food stamp retailers across the city.

This report is the third in a series of discussion briefs from NeighborhoodInfo DC. NeighborhoodInfo DC provides residents and community-based organizations in the District of Columbia with local data and analysis that they can use to improve the quality of life in their neighborhoods. A partnership between the Urban Institute and the Washington, DC Local Initiatives Support Corporation (LISC), NeighborhoodInfo DC aims to democratize data for use as a tool in civic engagement.

Background on Food Stamp Eligibility

The federal government pays for the cost of the food stamp and half the cost of administering the Food Stamp Program. States are responsible for administering the program and pay half the administrative costs. To qualify, a family's household income cannot exceed 130 percent of the federal poverty level, which for FY 2006 is a gross monthly income of \$1,744 for a family of three, or \$20,928 a year (USDA FNS 2005c). Households also must have no more than \$2,000 in countable assets, such as in savings accounts. Houses and property lots are not included in this limit, and vehicles are a special asset category, although in the District of Columbia all vehicles are excluded from eligibility assessments altogether. The actual value of the food stamp benefit is based on a household's size and is reduced for families that report a

source of income. The amount of benefit a household receives is called an allotment. The net monthly income of the household is multiplied by 0.3, and the result is subtracted from the maximum allotment for the household size to find the household's allotment.⁴

With food stamps, people can buy any food or food product intended for human consumption in participating stores, as well as seeds and plants to grow food at home. Food stamps cannot be used to buy nonfood items such as soap, diapers, toilet paper, alcohol, vitamins, or medicine or to buy prepared food.⁵ In recent years, the actual food stamp was replaced with an ATM-like card called the electronic benefit transfer (EBT) system. The cards automatically withdraw from a personal account and can be used like a standard credit or debit card at participating stores.

The Food Stamp Program in the District of Columbia

The IMA is charged with determining the initial eligibility of applicants and recertifying applicants. In July 2004, the District of Columbia's Food Stamp Program provided benefits to 90,499 people living in 45,157 households. The average monthly participation rate has climbed steadily from 73,494 in FY 2001 to 88,655 in FY 2004 (USDA FNS 2005b). The average monthly benefit for individuals in FY 2004 was approximately \$91.66 (USDA FNS 2005a). The average monthly benefit for households in the same year was \$188.39 (Poikolainen 2005).⁶

In addition to administering the Food Stamp Program, IMA's Food Stamp Employment and Training Program provides employment and training services to adult food stamp recipients. IMA also performs program monitoring, quality control, and reporting functions required by federal law and court orders. People seeking food stamps in the District of Columbia can apply through one of seven Decentralized Service Centers

(DSC) located in neighborhoods throughout the city. DSC staff accept applications and determine the eligibility of D.C. families and individuals for several public programs, including food stamps. In addition to certifying applicants at the DSCs, IMA staff travel to shelters throughout the city to certify homeless men and women and to one of the Department of Employment Services' One-Stop Centers to assist with enrollment.

Overall Participation Rates in the District of Columbia

Each year the FNS estimates the rate of participation in the Food Stamp Program among those eligible for benefits. The number of participants is based on administrative records, and the number of people eligible for benefits is based on national survey data and other sources. Analysis at the federal level, as well as studies done by independent research institutes, have identified the food stamp participation rate in the District of Columbia as among the highest in the nation compared with other states.

The Food and Nutrition Service, which calculates a separate access rate called the Program Access Index (PAI) for state program assessment, identified the District of Columbia's participation access rate as 95.6 percent in FY 2004.⁷ This high PAI ranks Washington, D.C., among the top states in the nation and provides the District of Columbia a Food Stamp Bonus Award of \$441,677 for high food stamp participation and high performance in administering the Food Stamp Program. In addition, a recent report by the Brookings Institution notes the District of Columbia has one of the highest program participation rates in the nation among 50 different urban county areas (Fellowes and Berube 2005). According to a study by Mathematica Policy Associates, the share of eligible persons participating in D.C.'s Food Stamp Program was between 68 and 76 percent in 2003 (Castner and

Schirm 2005b). The estimated participation rate has ranged from 93 percent in 1999 to 66 percent in 2002 (Castner and Schirm 2004, 2005a).

Recent program improvements at the Income and Maintenance Administration, such as the IMA Change Center, are aimed at maintaining the city's high program participation rates. The Change Center, a multilingual service with access to more than 140 languages, allows customers to quickly report required changes of address, household size, income, and other factors that affect benefits. In five months of service (between September 27, 2004, and February 15, 2005), the IMA Change Center completed 13,364 internal changes and responded to 22,564 calls.

Participation Rates for Working Families, the Elderly, and Ethnic Subgroups

Though the District of Columbia's overall participation rates are high, there are reasons to suspect that certain subgroups are either having trouble connecting with the program or are choosing not to participate. For example, the city's estimated participation rate of 37 percent among eligible working poor families for the most recent year of study (2002) is significantly lower than the national rate of 46 percent (Castner and Schirm 2005c). And, as in other parts of the country, participation by members of ethnic subgroups appears disproportionately low compared to the number of poor in these subgroups.

Based on July 2004 data provided by the IMA, the vast majority of D.C. Food Stamp Program participants are African American (96 percent), followed by Hispanics (2 percent). Other ethnic subgroups and non-Hispanic whites make up the remainder of the program population. One would expect African American residents to make up the largest proportion of the city's food stamp recipients given that they make up the majority of the Washington, D.C., residents living

below poverty (73 percent). However, the relative difference between the proportion of food stamp recipients of other racial/ethnic groups (4 percent) and the proportion of poor these other groups make up in the District of Columbia (27 percent) suggests that more work can be done to enroll a broader set of eligible families.⁸

Enrollment of seniors is a long-standing problem with the Food Stamp Program nationally and also appears evident in the District of Columbia. In July 2004, just 3,708, or 8 percent, of the adults receiving food stamps were over the age of 65. This number is substantially lower than the 11,000 elderly poor found in the 2000 Census (Manjarrez 2002). There is also evidence to suggest that elderly residents who are responsible for minors are not enrolling in the Food Stamp Program. The vast majority of seniors enrolled in the D.C. Food Stamp Program are the only recipients in their household (90 percent). However, special tabulations of census data made available by the D.C. Office on Aging found more than 2,200 elderly (over 65) responsible for grandchildren under the age of 18 in 2000.⁹ If poor elderly residents are underrepresented in the District of Columbia food stamp rolls, either because they are unaware of their eligibility or simply because they have chosen not to participate, and they are also responsible for minors, then it is possible that a significant number of children in grandfamilies are not receiving food stamp benefits to which they are entitled.

Characteristics of Food Stamp Recipients and Households in the District of Columbia

Financial Assets

The District of Columbia's foodstamp households possess few resources. Only 9 percent of Food Stamp Program households reported earn-

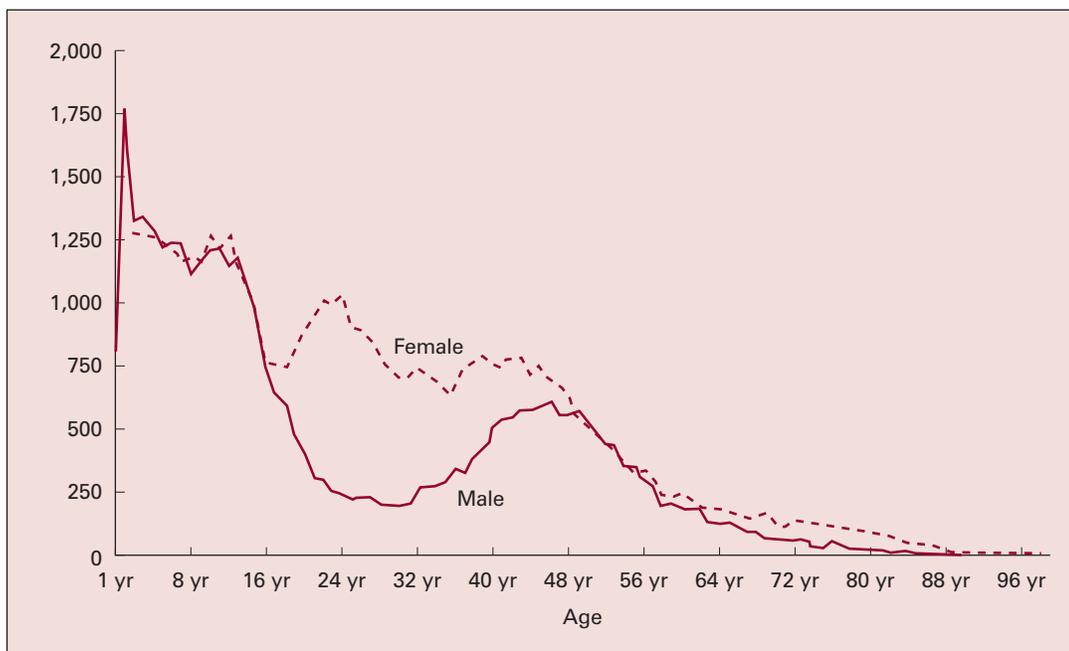
ings; for these households, the average earned income deduction was \$161 (Poikolainen 2005). In 2004, D.C. Food Stamp Program households reported an average of \$246 in net income and \$12 in countable resources. Thirty-three percent of Food Stamp Program households receive TANF benefits, 4 percent received Interim Disability Assistance or General Child Assistance, and 19 percent received SSI. Seventeen percent (7,000 households) of Food Stamp Program households were also receiving income from Social Security, and 9 percent reported some form of earned income (Poikolainen 2005).

Age and Gender of Participants

The majority of individuals served by D.C.'s Food Stamp Program (53 percent) are adults over the age of 18. Figure 1 shows the age distribution for all individuals covered as part of the Food Stamp Program by gender, with the solid line representing male participants and the dotted line representing female participants. For children in the program the split between boys and girls is roughly even, with equal numbers receiving support from the program. However, the split between men and women in program participation becomes pronounced in the late teen years and continues through the 30s. Between the ages of 18 and 40, 74 percent of the program participants are women.

In the District of Columbia, the percent of working-age women (18–55) in the active caseload is 34 percent and the percent of working-age men in the caseload is just under 19 percent. The average age for adult males participating in the program is 44, whereas the average age for adult female participants is 40. The number of men and women enrolled is roughly equal between the ages of 40 and 60. After age 60, elderly women are over three times more likely than elderly men to receive food stamps.

FIGURE 1. Age Distribution of Individuals Receiving Food Stamps, by Gender, July 2004, District of Columbia



Source: NeighborhoodInfo DC analysis of IMA 2004 data.

Household Composition

Unlike the national average for food stamp recipient households, where the majority of the households cover at least one child under the age of 18, less than half (43 percent) of the D.C. Food Stamp Program households have children under the age of 18. The vast majority of the households with children (84 percent) are female-headed households, 8 percent are households with at least one adult male and one adult female present, and 7 percent are headed by at least one adult male with no female present. There are a small

number of households (769) with no adult over 18 enrolled as a food stamp participant. These are likely to be households where the children are the only eligible food stamp participants, as with mixed-immigration-status households, or where the household consists of parents who are minors.

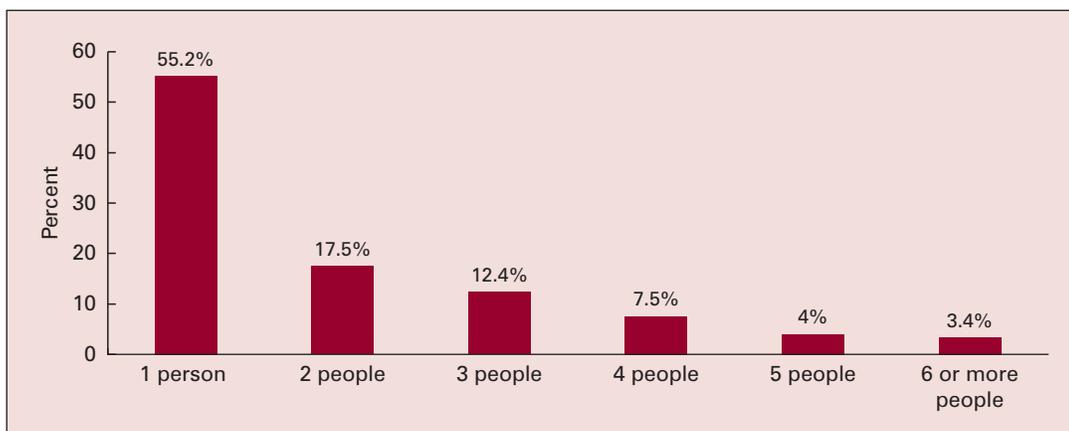
Most food stamp households in the District of Columbia are small. In fact, most households are single-person households (55 percent). Looking across all participants, the average food stamp household size was 2.3, but varied considerably by household composition. A sizable number of

households are two- or three-person households—17 percent and 12 percent, respectively. Figure 2 shows the household size distribution for all D.C. food stamp households.

The majority of the Food Stamp Program households with children cover just one or two children. Of the 19,482 households with children, 40 percent have just one child participant, 29 percent have two child participants, 16 percent have three child participants, 9 percent have four child participants, and the remaining 6 percent have five or more participants. Table 1 shows the distribution of households by the number of children in the household. In all, 41,090 children were served by the D.C. Food Stamp Program in July 2004.

Households without children have a fairly even distribution of adult men and women. For these households, men are slightly more likely to be among the food stamp participants. In July 2004, 53 percent of single-person households (13,580 households) were adult men and 42 percent were adult women. Single-person households make up approximately 55 percent of the District of Columbia's food stamp caseload.

FIGURE 2. Food Stamp Households by Size, July 2004, District of Columbia



Source: NeighborhoodInfo DC analysis of IMA 2004 data.

Geographic Concentration of Food Stamp Recipients and Markets in the District of Columbia

Concentration of Food Stamp Recipients by Ward

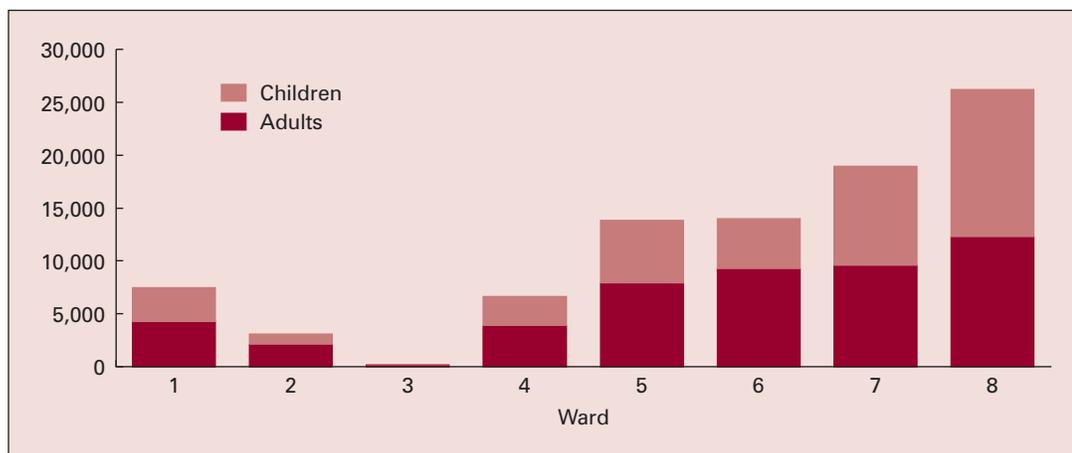
Figure 3 and table 2 identify the number of households, adults, and children participating in the District of Columbia

TABLE 1. Distribution of Households with Children in Food Stamp Program, July 2004, District of Columbia

Number of children	Number of households	Share of households (%)	Cumulative percent
1 child	7,720	39.6	39.6
2 children	5,635	28.9	68.6
3 children	3,215	16.5	85.1
4 children	1,650	8.5	93.5
5 children	743	3.8	97.3
6 or more children	519	2.7	100
Total	19,482	100	

Source: NeighborhoodInfo DC analysis of IMA 2004 data.

FIGURE 3. Adults and Children Receiving Food Stamps by Ward, July 2004, District of Columbia



Source: NeighborhoodInfo DC analysis of IMA 2004 data.

TABLE 2. Households and Individuals Receiving Food Stamps by Ward, July 2004, District of Columbia

Ward	Number of households	Share of households	Number of adults	Share of adults	Number of children	Share of children	Access score
1	4,001	8.9%	4,244	8.6%	3,231	7.9%	2.3
2	2,004	4.4%	2,099	4.3%	987	2.4%	2.8
3	149	0.3%	157	0.3%	31	0.1%	1.5
4	3,601	8.0%	3,876	7.9%	2,763	6.7%	0.5
5	7,147	15.9%	7,862	16.0%	5,981	14.6%	0.7
6	8,615	19.1%	9,220	18.7%	4,785	11.6%	0.3
7	8,608	19.1%	9,562	19.4%	9,375	22.8%	0.4
8	10,941	24.3%	12,271	24.9%	13,937	33.9%	0.2
Total	45,066	100%	49,291	100%	41,090	100%	0.7

Source: NeighborhoodInfo DC analysis of IMA 2004 data.

Food Stamp Program for each of the city’s eight wards. The majority of food stamp households (78 percent) live in four wards of the city: 5, 6, 7, and 8. The ward with the single largest concentration of households is ward

8, with 10,941 recipient households in July 2004.

The majority of adult Food Stamp Program recipients (79 percent) and a slightly larger majority of child Food Stamp Program recipients (83 percent)

are found in these four wards. Children receiving food stamp assistance are even more concentrated than adults, with over half the children receiving food stamp assistance in the city residing in wards 7 and 8. The relatively high concentration of children receiving food stamps is not surprising given the high number of children living in poverty in these wards. Based on 2000 Census figures, 53 percent of the children living in poverty in the District of Columbia reside in wards 7 and 8 (Rubin 2002).

Though the overall concentration of food stamp recipients across the wards is consistent for households and individuals, the ratio of adults to children in each ward is not (figure 3). For example, only in ward 8 do child recipients outnumber adult recipients. In this ward, close to 14,000 children are covered as part of the D.C. Food Stamp Program, compared with 12,227 adults. In wards 2 and 6, adult food stamp recipients exceed child recipients by a large margin. In ward 2, adult recipients outnumber child recipients by a ratio of 2 to 1. Likewise, in ward 6 the ratio of adults to children is just below 2 to 1, with 9,220 adult recipients and 4,785 child recipients.

Concentration of Food Stamp Recipients by Cluster

Table 3 provides more fine-grained detail on the geographic concentration of food stamp recipients by examining

TABLE 3. Households and Individuals Receiving Food Stamps by Neighborhood Cluster, July 2004, District of Columbia

Cluster	Ward	Cluster name	Households		Adults		Children	
			Number	Share	Number	Share	Number	Share
01	1	Kalorama Heights, Adams Morgan, Lanier Heights	352	0.8%	362	0.7%	187	0.46%
02	1	Mt. Pleasant, Columbia Heights, Pleasant Plains, Park View	3,084	6.9%	3,282	6.7%	2,647	6.46%
03	1	Howard University, Cardozo/Shaw, Le Droit Park	639	1.4%	675	1.4%	465	1.13%
04	2	Burleith, Hillandale, Georgetown	24	0.1%	25	0.1%	8	0.02%
05	2	West End, Foggy Bottom, GWU	29	0.1%	30	0.1%	2	0.00%
06	2	Dupont Circle, Connecticut Ave/K St.	158	0.4%	159	0.3%	65	0.16%
07	2	Logan Circle, Shaw	1,500	3.3%	1,587	3.2%	860	2.10%
08	2	Downtown, Penn Quarters, Chinatown, Mt Vernon Square, North Capitol St.	2,383	5.3%	2,505	5.1%	1,117	2.73%
09	6	Southeast Employment Area, Southwest Waterfront, Buzzard Point, Ft. McNair	1,036	2.3%	1,171	2.4%	875	2.14%
10	3	Chevy Chase, Barnaby Woods, Hawthorne, Forest Heights	40	0.1%	42	0.1%	3	0.01%
11	3	Friendship Heights, Tenleytown, American University Park	40	0.1%	40	0.1%	5	0.01%
12	3	North Cleveland Park, Van Ness, Forest Hills	22	0.0%	25	0.1%	5	0.01%
13	3	Foxhall Crescent, Foxhall Village, Georgetown Reservoir, Palisades, Spring Valley, Wesley Heights	15	0.0%	15	0.0%	2	0.00%
14	3	Cathedral Heights, McLean Garden's, Glover Park	22	0.0%	23	0.0%	11	0.03%
15	3	Cleveland Park, Mass. Ave. Heights, Woodley Park, Woodland-Normanstone Terrace	27	0.1%	29	0.1%	4	0.01%
16	4	North Portal Estates, Colonial Village, Shepard Park	51	0.1%	55	0.1%	35	0.09%
17	4	Brightwood, Manor Park, Takoma	815	1.8%	898	1.8%	586	1.43%
18	4	Brightwood Park, Crestwood, Petworth, 16th Street Heights	2,516	5.6%	2,681	5.5%	1,956	4.77%
19	4	Fort Totten, Lamond Riggs, Pleasant Hill, Queens Chapel	576	1.3%	636	1.3%	504	1.23%
20	5	North Michigan Park, Michigan Park, University Heights	321	0.7%	359	0.7%	258	0.63%
21	5	Edgewood, Bloomingdale, Eckington, Truxton Circle	2,031	4.5%	2,236	4.5%	1,659	4.05%
22	5	Brookland, Langdon, Brentwood	868	1.9%	972	2.0%	980	2.39%
23	5	Arboretum, Ivy City, Trinidad, Carver Langston	2,691	6.0%	2,950	6.0%	2,257	5.51%
24	5	Woodridge, Fort Lincoln, South Central, Gateway	819	1.8%	892	1.8%	499	1.22%
25	6	Union Station, Stanton Park, Kingman Park	4,395	9.8%	4,632	9.4%	1,873	4.57%
26	6	Capitol Hill, Lincoln Park	534	1.2%	574	1.2%	347	0.85%
27	6	Near Southeast, Arthur Capper, Carrollsburg, Navy Yard	655	1.5%	745	1.5%	710	1.73%
28	8	Historic Anacostia	1,134	2.5%	1,260	2.6%	1,499	3.66%
29	7	Kenilworth, Eastland Gardens	336	0.7%	416	0.8%	586	1.43%
30	7	Mayfair, Hillbrook, Mahanig Heights	961	2.1%	1,033	2.1%	895	2.19%
31	7	Deanwood, Burrville, Lincoln Heights, Grant Park, Fairmont Heights	1,969	4.4%	2,234	4.5%	2,396	5.85%
32	7	River Terrace, Benning, Greenway, Fort Dupont	1,697	3.8%	1,884	3.8%	1,839	4.49%
33	7	Capital View, Marshall Heights, Benning Heights	2,055	4.6%	2,287	4.7%	2,445	5.97%
34	7	Twining, Penn Branch, Fairlawn, Randle Highlands, Ft. Davis Park, Dupont Park	1,517	3.4%	1,622	3.3%	1,145	2.79%
35	7	Hillcrest, Fairfax Village, Naylor Gardens	561	1.2%	608	1.2%	429	1.05%
36	8	Woodland, Garfield Heights, Knox Hill	1,089	2.4%	1,248	2.5%	1,545	3.77%
37	8	Barry Farm, Hillsdale, Sheridan, Fort Stanton	1,801	4.0%	2,046	4.2%	2,453	5.99%
38	8	Douglass, Shipley Terrace	1,323	2.9%	1,448	2.9%	1,904	4.65%
39	8	Congress Heights, Bellevue, Washington Highlands	4,862	10.8%	5,477	11.1%	5,914	14.43%
99	8	Non-cluster Areas	118		128		120	
		Total	45,066		49,291		41,090	100.00%

Source: NeighborhoodInfo DC analysis of IMA 2004 data.

the distribution of food stamp households and participants at the neighborhood cluster level. Overall, 8 of the 39 clusters in the city each have over 2,000 food stamp house-

holds. These clusters are distributed across seven of the city's eight wards. Nine additional clusters contain between 1,000 and 2,000 food stamp households. All but two of

these clusters are located in wards 7 and 8.

In ward 8, close to 50 percent of the food stamp recipients for the entire ward are concentrated in the

Congress Heights, Bellevue, and Washington Highlands cluster. The other four clusters have close to the same number of recipient households, ranging between 1,000 and 1,800. While the absolute number of household participation in the Food Stamp Program is more evenly distributed by neighborhood cluster within ward 7, there is still significant variation. Food Stamp Program participation ranges from 336 households in the Kenilworth, Eastland Gardens cluster to 2,055 participant households in the Capital View, Marshall Heights, Benning Heights cluster.

Two areas in ward 6 account for the majority (82 percent) of the food stamp households for the entire ward. Those areas are cluster 9 (Southeast Employment Area, Southwest Waterfront, Buzzard Point, Fort McNair) and cluster 25 (Union Station, Stanton Park, Kingman Park). Ward 5 has a similar pattern; two cluster areas account for the bulk of the food stamp households. These areas are cluster 21 (Edgewood, Bloomingdale, Eckington, Truxton Circle) and cluster 23 (Arboretum, Ivy City, Trinidad, Carver Langston). The large enrollment in clusters 23 and 25 could be the result of how IMA registers homeless men and women for the Food Stamp Program at two large shelters in these clusters; applicants are assigned the shelter address upon enrollment.

Food Stamp Recipients and Market Access

Examining where food stamp recipients live provides a useful look at the geographic spread of the program in the District of Columbia. However, knowing where food stamp households are located does not indicate how easy or difficult it is for individuals to effectively use the food stamp benefit. To address this question, we conducted basic geographic analysis on a data file containing all commercial food vendors in the District of Columbia that accept EBT cards.¹⁰ By identifying all authorized food stamp

retailers across the city we are able to provide a snapshot of the commercial food options available to food stamp recipients in each of the eight wards. Using address information from the stores and the census tract locations of food stamp households, we have also calculated the distance between the average food stamp household and major supermarkets in and around the District of Columbia.

This geographic analysis provides a broader context for understanding some of the challenges food stamp recipients face when purchasing food for themselves and their families. Examining the types of markets available and the distance members of food stamp households must travel to purchase food touches on two important food security issues: nutrition and cost.

Several studies have identified price differentials for groceries within the same market area. In *Food Store Access and Its Impact on Shopping Behavior of Food Stamp Households*, researchers found that the mix of stores in high-poverty urban areas is characterized by an abundance of small grocers with less variety and higher prices than larger supermarkets (Cole 1996). The study found that, in addition to having less access to chain grocery stores, inner-city residents who shop in non-chain stores pay a significant premium for their food. When available, discount supermarkets also seem to provide a better economic value for some EBT cardholders. A USDA study examined the availability and relative cost of items in the USDA's Thrifty Food Plan across several different types of supermarkets in the District of Columbia, such as large chain and independent supermarkets and discount food stores (Andrews et al. 2001). The researchers found slightly lower costs in discount food stores than the other types of markets, but they also found that these stores offered a more limited variety of foods.

Limited access to markets with competitively priced food can also

affect nutritional intake. A recent study of food stamps in Boston found that food stamp households in Roxbury, a low-income neighborhood, had very limited access to stores that allowed them to purchase culturally appropriate, heart-healthy foods (Olen, McManus, and Johnson 2004). Limited access to full-service markets can have an even greater impact in communities with an abundance of small stores carrying a wide variety of low-cost, energy-dense foods. In a 2003 Seattle supermarket survey, researchers found that foods considered culprits in the obesity epidemic, including chips, cookies, and soft drinks, were cheaper per calorie than more nutritious options such as fresh carrots, lean meats, and fruits (Drewnowski and Darmon 2005).

Distribution of Authorized Food Stamp/EBT Retailers

To get a better look at the accessibility of markets for food stamp households, we examine the distribution of the 367 commercial retailers that accept food stamps/EBT.¹¹ Table 4 identifies these authorized retailers by ward and type of market. The market categories listed in the table are defined by the USDA. Supermarkets include large stores such as Anacostia Warehouse Market, Bestway Market, and chain stores such as Safeway and Giant. The small to medium category includes a wide range of neighborhood markets that are generally larger than corner stores. Convenience markets include corner stores and chain convenience stores such as Stop and Go and 7-11.

The vast majority (72 percent) of authorized markets in the city are small to medium grocery stores or convenience markets, stores that are often less cost-effective options for food. While the small and medium grocery stores and convenience markets are more or less evenly distributed across the city, the number of authorized supermarkets is not. Twenty-four of the city's 36 authorized supermarkets are found in wards 1, 2, and 3.

TABLE 4. Authorized EBT Retailers in the District of Columbia by Ward and USDA Market Type, July 2005

Ward	Supermarket	Small/Medium	Convenience	Farmers market	Specialty and health	Pharmacy	Total
1	6	33	18	0	3	4	63
2	8	7	5	0	0	9	29
3	10	0	0	0	0	3	13
4	3	27	13	0	1	4	48
5	3	40	18	5	7	4	77
6	2	21	17	4	10	5	60
7	3	21	10	0	1	2	37
8	1	20	12	1	2	1	37
Total	36	169	93	10	24	32	

Source: NeighborhoodInfo DC analysis of IMA 2004 data.

Wards 2, 3, 7, and 8 have the smallest absolute number of authorized retailers. However, the low number of authorized markets presents less of an issue in wards 2 and 3 as each ward has multiple supermarket options and far fewer food stamp recipients than either ward 7 or ward 8. Across all wards, ward 5 appears to have the broadest range of store types, supplementing the traditional grocers and pharmacies with multiple options via the D.C. farmers market and area health food stores.

Despite the fact that the majority of the stores that accept EBT are small markets, evidence suggests that food stamp holders are shopping at the larger markets. In 2001 the USDA looked at the types of stores people chose to shop at when using their food stamp benefit. They found that small grocery stores and convenience stores, which accounted for 65 percent of the total number of stores accepting food stamps at the time of the study, accounted for only 14 percent of actual food stamp redemptions (Andrews et al. 2001). In contrast, the 15 percent of stores self-classified as supermarkets were responsible for 60 percent of redemptions. In other words, it appears people are attempting to maximize their food stamp benefit by shopping at larger stores, which tend to offer a larger selection at a more competitive price. Given the redemp-

tion patterns of most food stamp recipients, it is important to look at the distribution of these stores relative to the location of food stamp households. Comparing market locations to food stamp households gives us a better look at the distance food stamp households must travel to secure food for their families. A key assumption of this analysis is that greater distances would require greater time and effort for the shopper, thereby reducing the overall worth of the food stamp benefit.

Supermarket Access for Food Stamp Households

To get a better look at the distribution of markets vis-à-vis food stamp households we created two maps. The first map (figure 4) compares food stamp households to small and medium grocery stores and supermarkets in the District of Columbia. This map highlights some of the challenges that recipient households face when securing food for their families. The relatively small number of supermarkets in some areas of the city indicates that food stamp recipients and families have to choose between paying a premium for shopping locally and paying the cost of time and transport to more competitive markets (Chung and Myers 1999; Kaufman et al. 1997). When we focus this analysis on neigh-

borhood clusters, we see that relatively few food stamp recipient households in the city have ready access to markets close to home. Areas with a high number of food stamp households also have the smallest number of supermarkets and small to medium grocers.¹²

To get a sense of the geographic variation in supermarket access for the District of Columbia’s food stamp recipients, we created a map (figure 5)

that displays the number of supermarkets within a half-mile radius of the average food stamp household.¹³ The shaded areas of the map identify neighborhood clusters with varying numbers of supermarket accessibility to the average food stamp household. The darkest areas identify clusters with three or more supermarkets per average food stamp household and the lighter areas identify clusters with either one or zero supermarkets within a half-mile radius of the average food stamp household. Based on the map, 31 of the 39 clusters in the District of Columbia were identified as having one or more supermarkets within a half-mile radius of the average food stamp household. Among these 39 clusters, only 9 provide two or more supermarket within a half-mile of the average food stamp household. In 4 clusters in the center of the city, food stamp households have ready access to at least three grocery stores.

The clusters that have no major grocery stores within a half-mile radius are spread across the District of Columbia. However, this limited access to markets affects the greatest number of food stamp households in three clusters of ward 8. Clusters 37 (Sheridan, Barry Farms, Buena Vista), 38 (Douglass, Shipley Terrace), and 39 (Congress Heights, Bellevue, Washington Highlands) have no

major grocery store within a half-mile radius of the average food stamp household. This limited access to markets in these areas is important because of the size of the food stamp population they contain. These three clusters held a total of 7,986 food stamp households, approximately 21 percent of the District of Columbia's total food stamp caseload.

By coupling the distribution of food stamp receipts with the distribution of commercial food markets, we see that the bulk of the city's food stamp households are clustered in areas with the fewest commercial food options. The fact that a large number of food stamp households in certain areas of the city have to travel farther to find competitively priced food for

their families suggests that for many of the District's Food Stamp Program participants, the full financial benefit of the federal program is not realized.

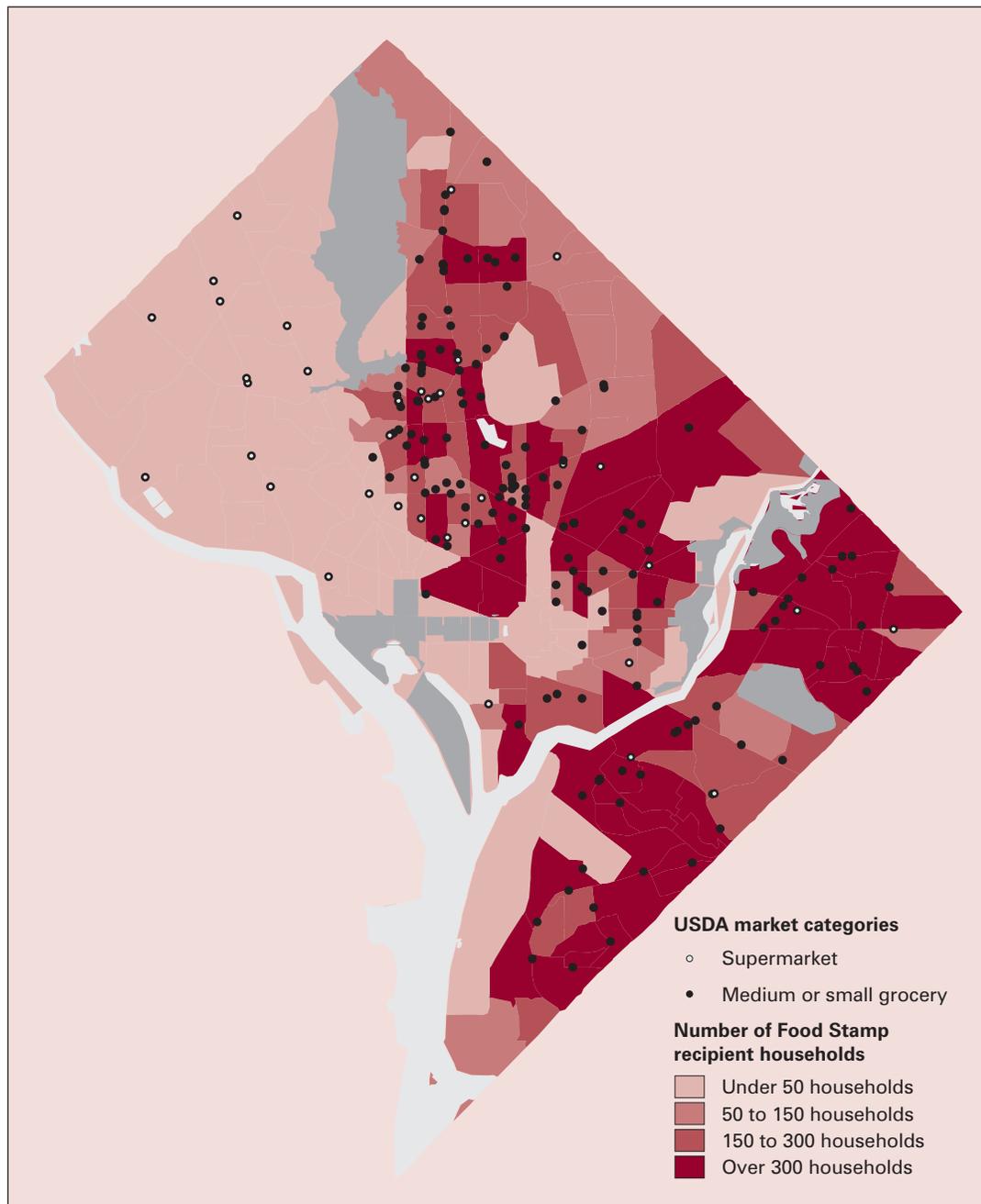
Summary and Policy Implications

New data resources available through NeighborhoodInfo DC and the USDA

Food and Nutrition Service allow for a more comprehensive look at the food stamp population in the District of Columbia than ever before. With these data we are able to identify the size, age, race/ethnicity, and geographic distribution of participants in the District of Columbia's Food Stamp Program. Combining administrative records from the Income Maintenance Administration with data from the USDA also allows us to look at the commercial food options available to program participants. Based on our analysis of these data, we make the following recommendations to Food Stamp Program administrators and other agencies dealing with food security in the District of Columbia:

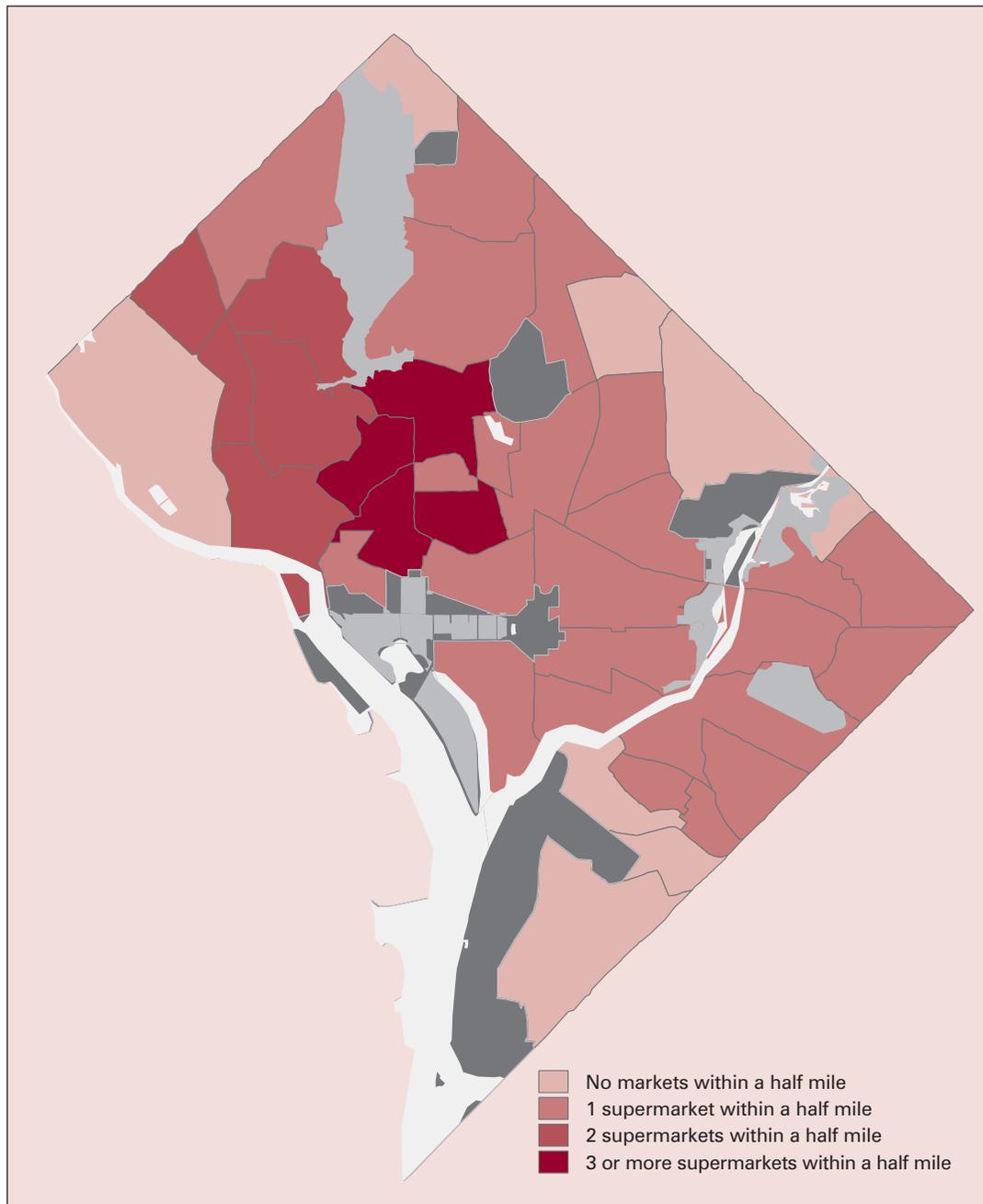
Use administrative data to monitor program participation and to develop program plans and nutritional interventions in the District of Columbia. The high concentration of Food Stamp Program participants in eight neighborhood clusters of the city provides an important new look at food inse-

FIGURE 4. Distribution of Food Stamp Households by Tract with Small/Medium and Supermarket Options



Sources: Markets: USDA District of Columbia EBT food market designations, July 2005. Food Stamp recipients: DC Department of Human Services, Income Maintenance Administration. Data are as of July 2004.

FIGURE 5. Supermarket Accessibility for Food Stamp Program Households



Sources: Markets: USDA District of Columbia EBT food market designations, July 2005. Food Stamp recipients: DC Department of Human Services, Income Maintenance Administration. Data are as of July 2004.

curity in the city. As much as these data are a proxy for need in the city, program administrators and non-profit providers have new information to target their food security and nutrition education efforts in certain areas of the city. Program managers can also use these data to examine areas of the city where Food Stamp Program participation is low relative

to other measures of household need. Some groups in the city are already doing this type of analysis. The Meals Access Project, which is coordinated out of the Downtown Business Improvement District, has produced maps that compare the distribution of soup kitchens and mobile food distribution sites to areas where homeless men and

women congregate. The maps are a first step in coordinating mobile food distribution in this area of the city.

Bridge the gap between high overall rates of Food Stamp Program participation and the relatively low participation rates for various sub-groups. Although overall access and participation in the District of Columbia’s Food Stamp Program is high compared with other states, recruitment for certain sub-populations requires greater attention. To boost proportionately low enrollment, IMA has done outreach through the city’s One-Stop Employment Centers and local nonprofit agencies. These are important efforts that should be continued. However, the relatively low participation rates among working families, poor elderly, and Hispanics and Asians suggest that new strategies should be developed in consultation with local stakeholders.

Nonprofit agencies can seek support for this work by applying for food stamp outreach grants from the FNS. These grants are specifically designed for the implementation and study of effective strategies that inform and educate the potential eligible population about the nutrition benefits, eligibility rules, and application procedures of the Food Stamp Program.

Examine the impact of limited grocery options on the overall food cost and nutritional intake of all low-income families.

Though food stamp participants are distributed throughout the city, supermarkets are not. While the groundbreaking ceremonies for a new chain supermarket in ward 8 represent a significant step forward for east-of-the-river residents in the southeast quadrant of the city, a great deal of work is needed to better understand the relationship between food cost, food availability, and nutrition in the District of Columbia. One in five food stamp households have no supermarket within a half-mile of their home, which likely forces recipients to either pay a premium for shopping at smaller grocers or invest time and money in finding more competitively priced markets. The fact that a large number of food stamp households have to travel farther to find competitively priced food for their families means that the full financial benefit of the family's food stamp is not realized. It might also have implications for the food people purchase to feed to their families. More work should be done to understand how market access and cost contribute to nutritional choices and health in the District of Columbia.

Coordinate public and private-non-profit efforts to gauge to full extent of food insecurity and to connect services to need.

The District of Columbia has a broad network of nonprofit and public food providers serving food-insecure and nutritionally vulnerable populations, with each agency or group managing its own program data on clients and service sites. As was shown in this brief, a great deal can be learned about the food security efforts of the Food Stamp Program by combining just one administrative data file with one data file identifying commercial markets. A much more comprehensive look at food insecurity, and the efforts that are being made to combat it, would be attained if multiple agencies were

to pool their respective information resources. For example, combining general location information of non-profit client households with the location of food stamp households would allow for a more detailed gap analysis. Examining gaps in coverage or overlap could provide immediate action steps. Households that are active in nonprofit food services but not receiving food stamps could be informed of Food Stamp Program eligibility. Food stamp households that do not appear to be accessing nonprofit food providers could be given a list of pantries in their area to help them meet household needs. The Mayor's Commission of Food and Nutrition is an important step toward a coordinated, citywide strategy to deal with food security and nutrition. The commission's task would be made much easier if public and nonprofit agencies were able to combine information resources to gain a better picture of food insecurity in the District of Columbia.

Notes

1. Calculated using July 2004 individual food stamp participation total over the 2004 Census population estimate for the District of Columbia (553,523).
2. State-by-state comparisons can be made using yearly estimates for a variety of items including average number of food stamp participants, average households, and average benefit. These data can be found on the FNS web site at <http://www.fns.usda.gov/pd/fspmain.htm>.
3. Wards consist of the following clusters: ward 1 = clusters 1-3; ward 2 = clusters 4-8; ward 3 = clusters 10-15; ward 4 = clusters 16-19; ward 5 = clusters 20-24; ward 6 = clusters 9 and 25-27; ward 7 = clusters 29-35; ward 8 = clusters 28 and 36-39.
4. A fact sheet on resources, income, and benefits for the federal program can be found at http://www.fns.usda.gov/fsp/applicant_recipients/fs_Res_Ben_Elig.htm. Also, the District of Columbia's Income Maintenance Administration has a combined application for individuals to apply or be recertified for one or more of the following assistance programs: Financial Assistance/TANF, Food Stamps, and/or Financial Assistance/TANF. Copies of the combined application can be found in English and in Spanish on the IMA web site.
5. On the issue of prepared food, FNS may authorize restaurants as retail food stores provided they contract with the appropriate state agency to serve meals to homeless persons at "concessional" (low or reduced) prices. To date, no restaurants in the District of Columbia have been authorized to accept food stamps from homeless men and women. The specific language for this authorization can be found in Title 7 of the Federal Code of Regulations § 278.1 Approval of retail food stores and wholesale food concerns, Section (i) Private homeless meal providers. <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=1cdaac156a5038f2a4cb7cf5b60ee941&rgn=div8&view=text&node=7:4.1.1.3.25.0.1.1&idno=7>
6. The term "households" refers to individuals or groups of people sharing a single D.C. Food Stamp Program case identification number. Case identification numbers are dispensed to individuals regardless of their housing situation. A variety of household types are given single case i.d. numbers, from intergenerational or extended families in a single residence to single homeless men and women.
7. Terri S. Thompson, Program and Policy Coordinator, D.C. Income Maintenance Administration, letter to the authors, June 17, 2005.
8. Estimate of African American poverty in the District of Columbia based on authors' calculation from U.S. Bureau of Census, Current Population Survey data, 2004.
9. These data are provided by the District of Columbia's Office on Aging and are drawn from a special tabulation by the Census Bureau of the 2000 decennial census.
10. The USDA District of Columbia EBT Food Destinations data file contains the name, address, phone number, authorization date, and USDA-designated store type for all EBT authorized retailers as of July 2005.
11. To participate in the Food Stamp Program and accept EBT cards, retailers must be authorized by the FNS. A store may qualify for authorization in one of two ways. One is to stock and sell an ample variety of staple foods in all four categories of staple foods: breads/cereals (such as rice, pasta, cereal, crackers, etc.); dairy products (such as milk, cheese, butter, yogurt, etc.); fruits/vegetables; and meat/poultry/fish. These can be fresh, canned, or frozen food items. In addition, a store must stock perishables in at least two categories. The second way is to obtain more than 50 percent of gross total sales from the sale of one or more staple foods. More information regarding USDA certification of food stamp retailers can be found at <http://www.fns.usda.gov/fsp/retailers/default.htm>.

12. For this analysis we selected supermarkets in the District of Columbia from the USDA list and supplemented this listing with supermarkets close to the city in Prince George's County and Montgomery County in Maryland and Arlington and Alexandria in Virginia.
13. To develop these maps we created a supermarket access score based on the number of major grocery stores within a half-mile radius of the center of each census tract. This score was then used to create an average score for the entire cluster by summing the access scores for each area and dividing by the number of food stamp households in the area. The half-mile radius was chosen for consistency with previous research.

References

- Andrews, Margaret, Linda Scott Kantor, Mark Lino, and David Ripplinger. 2001. "Using USDA's Thrifty Food Plan to Assess Food Availability and Affordability." *Food Review* 24(2): 45-53.
<http://www.ers.usda.gov/publications/FoodReview/May2001/FRV24I2h.pdf>.
- Castner, Laura A., and Allen L. Schirm. 2004. "Reaching Those in Need: State Food Stamp Participation Rates in 2001." USDA Food and Nutrition Service Brief. Princeton, NJ: Mathematica Policy Research.
- . 2005a. "Reaching Those in Need: State Food Stamp Participation Rates in 2002." USDA Food and Nutrition Service Brief. Princeton, NJ: Mathematica Policy Research.
- . 2005b. "Reaching Those in Need: State Food Stamp Participation Rates in 2003." USDA Food and Nutrition Service Brief. Princeton, NJ: Mathematica Policy Research.
- . 2005c. *State Food Stamp Participation Rates for Working Poor*. Report for the USDA Food and Nutrition Service. Washington, DC: Mathematica Policy Research.
<http://www.fns.usda.gov/oane/MENU/Published/FSP/FILES/Participation/WorkingPoor2002.pdf>.
- Chung, Chanjin, and S. Myers. 1999. "Do the Poor Pay More for Food? An Analysis of Grocery Store Availability and Food Price Disparities." *Journal of Consumer Affairs* 33(2).
- Cole, Nancy. 1996. "Evaluation of the Expanded EBT Demonstration in Maryland: Food Store Access and Its Impact on Shopping Behavior of Food Stamp Households." Bethesda, MD: Abt Associates.
- Drewnowski, Adam, and Nicole Darmon. 2005. "Food Choices and Diet Costs: An Economic Analysis." *Journal of Nutrition* 135(4): 900-904.
- Fellowes, Matt, and Alan Berube. 2005. *State Food Stamp Participation Rates in 2002*. Metropolitan Policy Program Survey Series. Washington, DC: The Brookings Institution.
- Kaufman, Phillip R., James M. MacDonald, Steve M. Lutz, and David M. Smallwood. 1997. "Do the Poor Pay More for Food? Item Selection and Price Differences Affect Low-Income Household Food Cost." Agricultural Economic Report No. 759. Washington, DC: USDA, Economic Research Service.
<http://www.ers.usda.gov/publications/aer759/AER759.PDF>.
- Manjarrez, Carlos A. 2002. "Elderly Poverty in the Region." *Where We Live* Brief Series. Washington, DC: The Urban Institute.
- Olen, Lisa, Katherine McManus, and Paula Johnson. 2004. "Tough to Eat Heart-Healthy on Food Stamps." *Daily News Central: Health News*, November 10. <http://health.dailynewscentral.com/content/view/122/63>.
- Poikolainen, Annie. 2005. *Characteristics of Food Stamp Households: Fiscal Year 2004*. Report No. FSP-05-CHAR. Washington, DC: Mathematica Policy Research.
<http://www.fns.usda.gov/oane/MENU/Published/FSP/FILES/Participation/2004Characteristics.pdf>.
- Rubin, Mark. 2002. *2000 Census Numbers Reveal High Poverty Numbers in the District by Ward and Neighborhood Cluster*. Washington, DC: DC Agenda Neighborhood Information Service.
- U.S. Department of Agriculture, Food and Nutrition Service. 2005a. "Food Stamp Program: Average Monthly Benefit per Person." <http://www.fns.usda.gov/pd/fsavgben.htm>.
- . 2005b. "Food Stamp Program: Average Monthly Participation (Persons)." <http://www.fns.usda.gov/pd/fsfpart.htm>.
- . 2005c. "Income (Rules on Income Limits)." http://www.fns.usda.gov/fsp/applicant_recipients/income.htm.

About the Authors

Carlos A. Manjarrez is a research associate in the Urban Institute's Metropolitan Housing and Communities policy center.

Jessica Cigna is a research associate in the Urban Institute's Metropolitan Housing and Communities policy center.

Acknowledgments

The authors would like to thank the following persons for comments on earlier versions of this brief: Jake Cowan, UI; Marian Peele, Capital Area Food Bank; Kim Perry, DC Hunger Solutions; Peter Tatian, UI; Michelle Mengel, LISC; Oramenta F. Newsome, LISC; Randy Rosso, FRAC; and Terri S. Thompson, DC Income Maintenance Administration. The Annie E. Casey Foundation and the Eugene and Agnes Meyer Foundation provided financial support for this brief.

To obtain more data on neighborhoods in the District, or to download an electronic version of this brief, please visit www.neighborhoodinfodc.org. To order additional printed copies of this publication, call 202-261-5647.

Copyright © 2006. The Urban Institute. The views expressed are those of the authors and do not necessarily reflect those of the Urban Institute, the Washington, DC Local Initiatives Service Corporation, their boards, or their sponsors.