

Food Insecurity in Middlesex County

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Introduction

Riley Link, Curtis McDaniel, Daniel Rodriguez, and Sabeen Rokerya, 2018 Ralph W. Voorhees Public Service Fellows, partnered with the Middlesex County Food Organization and Outreach Distribution Services (MCFOODS) during the Fall 2018 semester to research food insecurity in Middlesex County. MCFOODS asked the fellows to explore whether there are areas of unmet demand for food assistance in Middlesex County and especially in the towns of Carteret and Woodbridge. This is difficult to do and could not be fully completed within one semester. The fellows began the process of answering these questions by (1) exploring the demographic and economic characteristics of communities in Middlesex County, (2) mapping the MCFOODS-networked food pantries that serve these communities, and (3) identifying communities which experience higher rates of poverty and which have more adults 75 and over. Using this information, the team identified areas that might have higher demand for food assistance and therefore warrant additional research. The report begins with background information about food insecurity. A short description about methodology and limitations follows. The authors then discuss what they learned about Middlesex County and specifically about Carteret and Woodbridge. The report concludes with key takeaways and recommendations for future research.

Food Insecurity

Food insecurity is often defined as “reduced food intake or low-quality/low-variety of food intake” by an individual or household (Coleman-Jensen, Rabbitt, Gregory & Singh, 2018). Food insecurity is a serious, widespread issue. About 11.8 percent of households in the U.S. and 8.0 percent of households in New Jersey were food-insecure in 2017, based on Current Population Survey Food Security Supplement (CPS-FSS) data (Coleman-Jensen et al., 2018). People who are food-insecure are more likely to suffer from negative physical and mental health outcomes including diet-related diseases such as diabetes, hypertension, heart disease, and obesity, and high levels of stress, anxiety, and depression (Hartline-Grafton & Dean, 2017). The emergency food system provides food to people who do not qualify for federal programs such as the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the National School Lunch Program (NSLP), and it provides additional resources to participants in these programs who continue to experience food insecurity (Weinfield et al., 2014).

The emergency food system is comprised of public and private programs, regional food banks, and local food distribution organizations such as food pantries. Food banks and pantries aggregate food from public and private sources, and food pantries and other local organizations distribute it to people in need. The Middlesex County Food Organization and Outreach Distribution Services (MCFOODS) organization is one of two regional food banks that serve Middlesex County. MCFOODS receives food from The Community FoodBank of New Jersey (the other regional food bank), bakeries, food drives, individuals, organizations and companies. It aggregates and stores food at its East Brunswick warehouse and distributes it on Tuesday and Wednesday mornings to more than 105 affiliated local organizations such as emergency shelters, soup kitchens, and food pantries in Middlesex County. MCFOODS also builds institutional emergency food system capacity. It supports food pantry development, coordinates food drives, and facilitates communication and coordination among emergency food providers in Middlesex County.

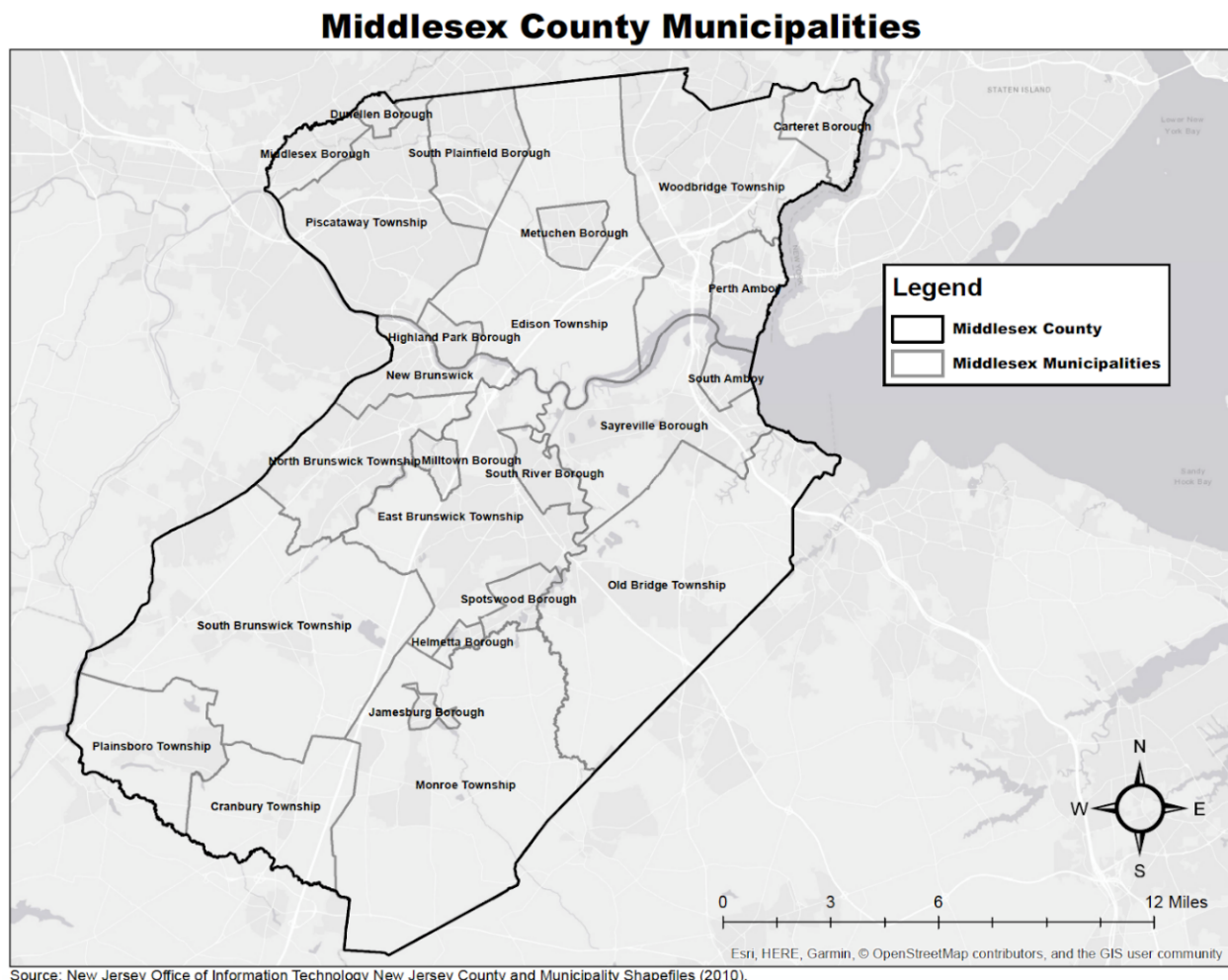
The food pantries then aggregate food from regional food banks and donations and distribute it on designated days to individuals and families who visit the pantries. Most pantries in Middlesex County provide pre-assembled bags of non-perishable groceries and fresh, refrigerated, or frozen produce and meat. A few pantries use a client-choice model in which clients select their foods. Some pantries also provide non-food items such as personal hygiene products (Middlesex County Food Organization and Outreach Distribution Services [MCFOODS] Food Pantry Survey, 2018; Ralph W. Voorhees Public Service Fellows et al., 2015).

Methods

Because food insecurity is difficult to measure, we explored a set of population and housing characteristics that are often associated with increased food insecurity. We analyzed individual, family and household population as well as economic characteristics using the U.S. Census Bureau's 2012-2016 American Community Survey (ACS) 5-Year Estimates and information about subsidized housing from the U.S. Department of Housing and Urban Development. Using this data, we counted and located Middlesex County households with lower incomes and those with individuals aged 75 and over. Though not all households in these categories are food insecure, these factors may suggest the presence of individuals who are more vulnerable to food insecurity. To assess the potential extent of unmet need, we used data from the 2018 MCFOODS Food Pantry Survey to identify the location of MCFOODS-networked food pantries relative to households with low incomes and older adults.

The remainder of the report presents the findings for Middlesex County, outlines the key takeaways, and suggests areas for future research.

Figure 1. Map of Middlesex County Municipalities



Food Insecurity in Middlesex County

Middlesex County is the state's second most populous county with 842,798 residents who live in 25 municipalities (U.S. Census Bureau, 2017). The townships of Edison and Woodbridge are the most populous (101,865 and 101,164 people respectively) and have higher numbers of lower income residents and aging adults. East Brunswick, Monroe, Sayreville, New Brunswick, North Brunswick and South Brunswick have populations slightly less than half those of Edison and Woodbridge. Carteret, South Plainfield, and Plainsboro are smaller towns with an average population of 23,752 people each. The least populated towns, each with fewer than 9,000 people, are Helmetta, Cranbury, Jamesburg, Milltown, Dunellen, Spotswood, and South Amboy. Since publicly available data for household food security is not available at the county or tract levels, we measured potential food insecurity by identifying areas in Middlesex County that have higher numbers of lower income and older residents.

Household Income and Poverty

Food insecurity is prevalent not only among households with incomes below the poverty level, but also those with incomes above it, especially in areas with high living costs such as Middlesex County (Wight, Kaushal, Waldfogel & Garfinkel, 2014; Feeding America, n.d.; Middlesex County Assessment Planning Group [MCAPG], 2017). Over a third, or 36.8 percent, of U.S. households with incomes below the poverty line were food-insecure in 2017 (Coleman-Jensen et al., 2018). To better understand where lower income residents live in Middlesex County, we gathered data on the number and share of lower income individuals and households from the ACS 2012-2016 5-Year Estimates.

Just under one in 10 people, or about nine percent (± 0.4), of the county's 71,749 ($\pm 3,364$) residents have incomes below the poverty line. Many of these people live in New Brunswick and Perth Amboy. New Brunswick has the highest number (17,426 $\pm 1,584$) and share of poor people (36% ± 3.3) and the lowest estimated median household income (\$40,428 $\pm 2,504$). Some of New Brunswick's low-income residents are college students. Excluding the number of off-campus college students, New Brunswick's poverty rate is 30.5 percent (± 3.4). Perth Amboy has a slightly lower number of people (10,549 $\pm 1,189$), constituting 20.4 percent (± 2.3) of the population; the median household income in Perth Amboy is also slightly higher than New Brunswick's (\$49,155 $\pm 3,201$). The largest towns by population, Edison and Woodbridge, also have high numbers of people in poverty. Within these four communities as well as others, some neighborhoods have higher concentrations of poor residents. For example, census tracts 56.02 and 58 in New Brunswick and tracts 45 and 48 in Perth Amboy have the highest number of families in poverty. In tract 36 in Carteret, 17.9 percent (± 6.2) of families are poor, compared to 2.4 percent (± 2.0) in tract 37. Higher numbers of poor residents are also present in tract 62.03 in North Brunswick, tracts 67.03, 66.04, and 94 in East Brunswick, tract 38 in Carteret, and tract 82.02 in Monroe (U.S. Census Bureau, 2016 [ACS, 2012-2016]; Benson and Bishaw, 2017).

Table 1. Estimates of Household Income and Poverty in Middlesex County 2012-2016 (ACS 2012-2016)

Municipality	Total Population	Number of People in Poverty	Margin of Error	% in Poverty	Margin of Error	Median HH* Income (dollars)	Margin of Error	Mean HH Income (dollars)	Margin of Error
Carteret	23,955	3,245	±644	13.5	±2.7	67,776	±5,495	71,318	±3,742
Cranbury	3,713	48	±48	1.3	±1.3	136,471	±29,913	193,217	±24,754
Dunellen	7,336	711	±366	9.7	±5.0	76,333	±13,943	91,826	±11,452
East Brunswick	48,162	3,330	±649	6.9	±1.3	101,435	±4,314	122,628	±4,226
Edison	100,494	5,172	±830	5.1	±0.8	91,821	±2,127	111,543	±2,514
Helmetta	2,314	112	±55	4.8	±2.3	75,096	±7,251	85,623	±6,385
Highland Park	14,180	1,608	±373	11.3	±2.6	67,829	±4,887	98,354	±7,159
Jamesburg	6,001	630	±411	10.5	±6.8	66,221	±14,038	82,077	±11,174
Metuchen	13,773	349	±154	2.5	±1.1	112,561	±5,749	140,227	±7,571
Middlesex	13,811	953	±727	6.9	±5.3	82,663	±7,155	99,137	±8,896
Milltown	7,016	544	±410	7.8	±5.8	106,500	±17,260	126,024	±21,964
Monroe	42,496	2,118	±505	5	±1.2	73,987	±4,013	106,827	±4,884
New Brunswick	48,437	17,426	±1,584	36	±3.2	40,428	±2,504	54,463	±2,265
North Brunswick	40,251	2,807	±608	7	±1.5	83,205	±3,657	99,258	±3,976
Old Bridge	66,103	2,678	±442	4.1	±0.7	84,594	±4,018	105,115	±3,963
Perth Amboy	51,613	10,549	±1,189	20.4	±2.3	49,155	±3,201	62,075	±2,911
Piscataway	47,488	3,328	±631	7	±1.3	89,244	±3,972	105,765	±4,367
Plainsboro	23,242	965	±267	4.2	±1.1	97,136	±7,293	127,000	±7,411
Sayreville	44,077	3,144	±725	7.1	±1.6	76,844	±4,702	91,529	±3,690
South Amboy	8,752	790	±365	9	±4.2	66,294	±19,375	82,866	±7,409
South Brunswick	45,012	1,955	±662	4.3	±1.5	109,893	±4,268	133,824	±5,684
South Plainfield	23,718	968	±326	4.1	±1.4	91,957	±5,886	105,966	±5,376
South River	16,289	1,846	±644	11.3	±4.0	65,254	±7,643	77,826	±4,360
Spotswood	8,418	567	±241	6.7	±2.9	74,668	±5,484	85,962	±6,036
Woodbridge	96,358	5,906	±942	6.1	±1.0	80,950	±1,529	93,852	±2,251

Source: ACS 2012-2016

Note: The number of people in poverty is the number of people below the poverty line. It is based on the population for whom

poverty status is determined. This total population for poverty status is slightly smaller than the population of each municipality since it excludes individuals whose poverty status cannot be determined including those under 15, and those living in college dormitories. **HH* refers to Household Income.

Housing Assistance

In addition to identifying lower income residents based on reported income and poverty level, we looked at the distribution of public housing developments, U.S. Department of Housing and Urban Development (HUD) Multifamily Housing, and Housing Choice Voucher (HCV) use - federal programs that provide housing assistance to lower-income households. We expected that public housing and HUD multifamily housing developments may identify places where lower income households are concentrated; we also expected that HCV use will be more spatially diffuse because households can use vouchers in the private market in a variety of housing types such as single-family homes, townhouses, and apartments. Not all people who reside in public housing developments or receive HCVs are food-insecure. For example, for residents who use these programs, housing assistance may alleviate pressure on their income enabling them to afford food. We accessed data about public housing developments and the people who live in them and HCV use from HUD's 2017 Picture of Subsidized Households dataset (U.S. Department of Housing and Urban Development [HUD], 2017).

We found that Housing Choice Voucher use is widespread in Perth Amboy, New Brunswick, Edison, Carteret, North Brunswick, Woodbridge and Sayreville. Public housing is more concentrated in many of these areas. More than 600 residents live in public housing in New Brunswick, with around 350 in Edison and 350 in Carteret. One hundred to two hundred residents live in public housing in Woodbridge, Highland Park and Perth Amboy, and under 100 live in South Amboy. These are the only municipalities with public housing in Middlesex County (HUD, 2017). HUD multifamily assisted housing is also more concentrated and serves many older adults. It is located in a variety of communities including New Brunswick, Sayreville, Carteret, Edison, North Brunswick, Old Bridge and East Brunswick (HUD, 2017; see Appendix A Table 11).

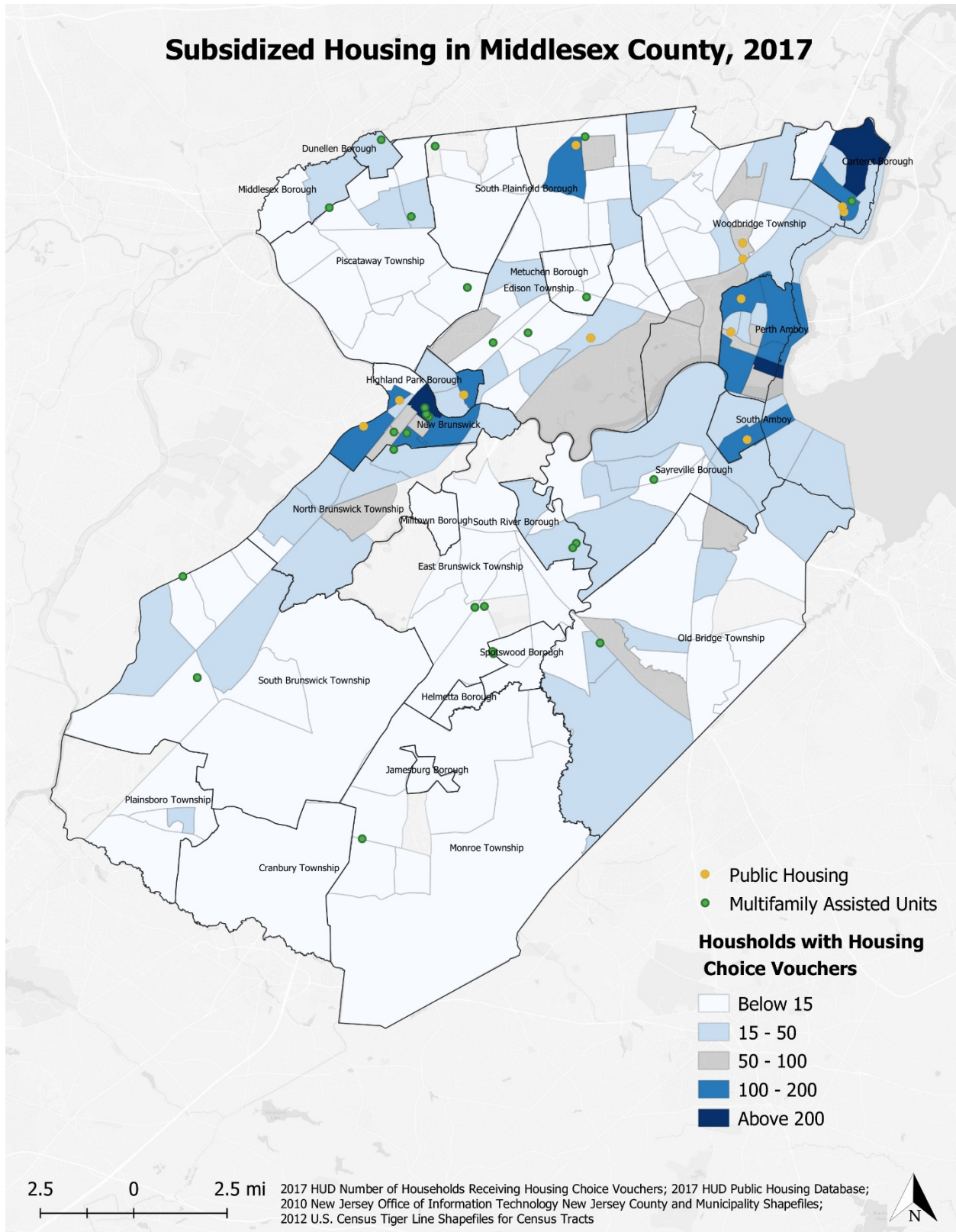
Older Adults

Because food insecurity among older people is growing, we looked at the presence of older adults in the county.¹ Older adults are at risk of being food insecure because they may have limited income and mobility, live alone, and lack access to transportation, which can make it difficult for them to shop or visit food pantries (Ziliak & Gundersen, 2018). Stigma may also prevent older adults from reporting food insecurity, which is why they are referred to as the “hidden hungry” (Beam, 2017). We sought to identify areas in Middlesex County that have higher concentrations of households with residents who are 75 years or older. We gathered this data from the American Community Survey 2012-2016 5-Year Estimates. Since not all adults 75 and older are food-insecure, this indicator alone cannot definitively show where food insecurity exists in Middlesex County.

Monroe Township, which has a number of age-restricted communities, has the highest share and number of older residents (almost 7 percent of residents are 85 or older). This is followed by Metuchen, Spotswood, Cranbury and Middlesex where about 3 percent of residents are 85 and older. Monroe has over 5,000 adults over 75, followed by Edison and Woodbridge each with over 4,000; East Brunswick, Piscataway and Sayreville each have around 2,000 residents over 75 (HUD, 2017; see Table 2). Many HUD multifamily housing projects which provide subsidized housing in Middlesex County also serve aging adults (HUD, 2017).

¹ In 2016, 7.7 percent of older adults (aged 60 and older) were food insecure, a 45 percent increase since 2001; during this same period, the overall population of older adults increased 113 percent (Ziliak & Gundersen, 2018).

Figure 2. Map of HUD Subsidized Housing in Middlesex County 2017



Census tracts with potential food insecurity

When looking at indicators of poverty, income and age at the census tract level, we found that a number of communities may be at risk of food insecurity. Outside the metropolitan areas of New Brunswick and Perth Amboy, the areas with the highest number of people in poverty are in Carteret (tracts 36 and 38), on the eastern edge of East Brunswick (tract 67.03), in central North Brunswick (tract 62.07), in western Middlesex (tract 1), in central and southern Sayreville (tracts 72.03 and 71.03), in Dunellen (tract 3), in southeastern Monroe (tract 82.02), in northeastern Edison (tract 14.16), in northwestern Woodbridge (tract 25) and in northern South River (tract 68). High poverty tracts where over 5 percent of residents are 75 years or older are located in Monroe (tract 82.02), southern Perth Amboy (tract 48, 49 and 50), East Brunswick (67.03), Middlesex (tract 1), Carteret (tract 38.00), Woodbridge (tract 25.00), Sayreville (72.03), Dunellen (tract 3) and South River (tract 68).

Irrespective of income and poverty, the tracts where over 10 percent of the population are 75 years or older are in Monroe (tracts 82.07, 82.05, 82.06), Old Bridge (tracts 79.10), Edison (tracts 14.17, 19.01, 14.10), Plainsboro (tract 86.01), Woodbridge (tracts 31.01, 23.01), Metuchen (tract 22), Spotswood (tract 81.02) and East Brunswick (tract 66.05). Tract 82.07 in central Monroe is the tract with the highest share of older adults (see Appendix A Table 12).

Table 2. Estimates of Population and Residents 75+ and 85+ Years of Age 2012-2016 (ACS 2012-2016)

Municipality	Total Population	Margin of Error	Number of Adults 75+	Margin of Error	Number of Adults 85+	Margin of Error	% of Adults 85+	Margin of Error
Carteret	23,966	±43	728	±203	502	±164	2.1	±0.7
Cranbury	3,803	±144	213	±79	112	±70	2.9	±1.8
Dunellen	7,355	±26	281	±158	115	±114	1.6	±1.5
East Brunswick	48,404	±73	1,884	±249	1,322	±278	2.7	±0.6
Edison	101,868	±91	4,331	±324	1,875	±239	1.8	±0.2
Helmetta	2,314	±143	58	±26	47	±23	2	±1
Highland Park	14,245	±27	421	±131	296	±103	2.1	±0.7
Jamesburg	6,001	±17	88	±61	63	±82	1	±1.4
Metuchen	13,791	±69	729	±156	436	±152	3.2	±1.1
Middlesex	13,811	±46	473	±182	403	±153	2.9	±1.1
Milltown	7,016	±19	285	±123	69	±55	1	±0.8
Monroe	42,855	±53	5,176	±408	2,888	±369	6.7	±0.9
New Brunswick	56,427	±53	963	±227	323	±94	0.6	±0.2
North Brunswick	42,392	±45	1,636	±280	512	±131	1.2	±0.3
Old Bridge	66,573	±56	2,161	±284	1,081	±212	1.6	±0.3
Perth Amboy	52,265	±32	1,349	±179	963	±187	1.8	±0.4
Piscataway	57,432	±113	1,810	±225	681	±136	1.2	±0.2
Plainsboro	23,398	±55	745	±182	365	±108	1.6	±0.5
Sayreville	44,260	±87	1,795	±264	736	±131	1.7	±0.3
South Amboy	8,762	±23	399	±147	206	±87	2.4	±1
South Brunswick	45,097	±43	1,403	±236	827	±198	1.8	±0.4
South Plainfield	23,963	±34	1,133	±214	596	±162	2.5	±0.7
South River	16,305	±39	574	±155	311	±116	1.9	±0.7
Spotswood	8,418	±59	534	±119	270	±81	3.2	±1
Woodbridge	101,131	±62	4,043	±395	1,812	±244	1.8	±0.2

Source: ACS 2012-2016

Table 3. Ranking of Census Tracts with Potentially High Food Insecurity in Middlesex County 2012-2016, 2017 (ACS 2012-2016 Estimates, HUD 2017)

Census Tract	People in Poverty	Margin of Error	% People in Poverty	Margin of Error	Median HH Income (dollars)	Margin of Error	% 75 Years +	Margin of Error	Number of people served by HUD programs
52 New Brunswick	3,077	±676	54.6	±8.8	24,333	±4666	2.0	±1.1	166
58 New Brunswick	2,641	±534	49.9	±8.5	31,458	±7688	1.6	±1.2	105
56.02 New Brunswick	2,617	±757	33.0	±9.4	43,297	±5822	1.3	±0.7	102
93 New Brunswick	1,954	±712	34.4	±10.3	42,971	±5194	3.9	±1.5	914
45 Perth Amboy	1,838	±668	24.2	±8.0	48,641	±6659	1.1	±1.1	761
48 Perth Amboy	1,799	±468	30.8	±7.8	31,016	±5693	7.3	±1.9	383
36 Carteret	1,773	±536	22.0	±6.7	60,778	±8094	2.8	±1.7	459
51 Perth Amboy	1,583	±483	47.6	±8.0	54,438	±8565	3.1	±1.2	NA*
46 Perth Amboy	1,456	±403	27.3	±7.8	38,906	±10759	3.3	±2.1	369
57 New Brunswick	1,362	±575	24.7	±9.1	37,823	±3125	2.5	±1.5	397
49 Perth Amboy	1,346	±337	27.2	±6.7	31,686	±5273	7.5	±2.3	470
55 New Brunswick	1,304	±457	32.6	±10.5	26,771	±3777	3.1	±1.6	872
53 New Brunswick	1,111	±280	36.5	±7.6	45,880	±18038	0.9	±0.7	34
50 Perth Amboy	969	±383	19.8	±7.2	47,784	±10148	5.9	±2.5	217
56.01 New Brunswick	956	±354	32.6	±9.9	37,097	±6515	2.5	±1.7	189
38 Carteret	932	±383	11.7	±4.8	67,964	±7581	7.1	±2.7	1,169
67.03 East Brunswick	891	±447	14.7	±7.0	94,786	±18726	5.9	±2.1	NA
62.07 North Brunswick	786	±396	12.1	±6.0	58,583	±12549	4.9	±1.7	195
1 Middlesex	769	±727	9.4	±8.7	106,786	±26179	6.4	±2.4	NA
60.02 New Brunswick	765	±292	26.0	±8.7	43,418	±8787	0.7	±0.5	170
62.03 North Brunswick	739	±425	8.3	±4.7	93,958	±16929	3.7	±2.0	225
47 Perth Amboy	736	±298	16.3	±6.3	62,454	±6450	0.8	±0.7	175
72.03 Sayreville	727	±270	15.1	±5.7	69,773	±13943	5.5	±1.9	471
3 Dunellen	711	±366	9.7	±5.0	76,333	±13943	5.4	±2.5	87
82.02 Monroe	696	±354	5.7	±2.9	123,864	±14877	9.5	±1.9	NA
14.16 Edison	695	±413	7.8	±4.5	87,750	±9233	3.2	±1.3	31

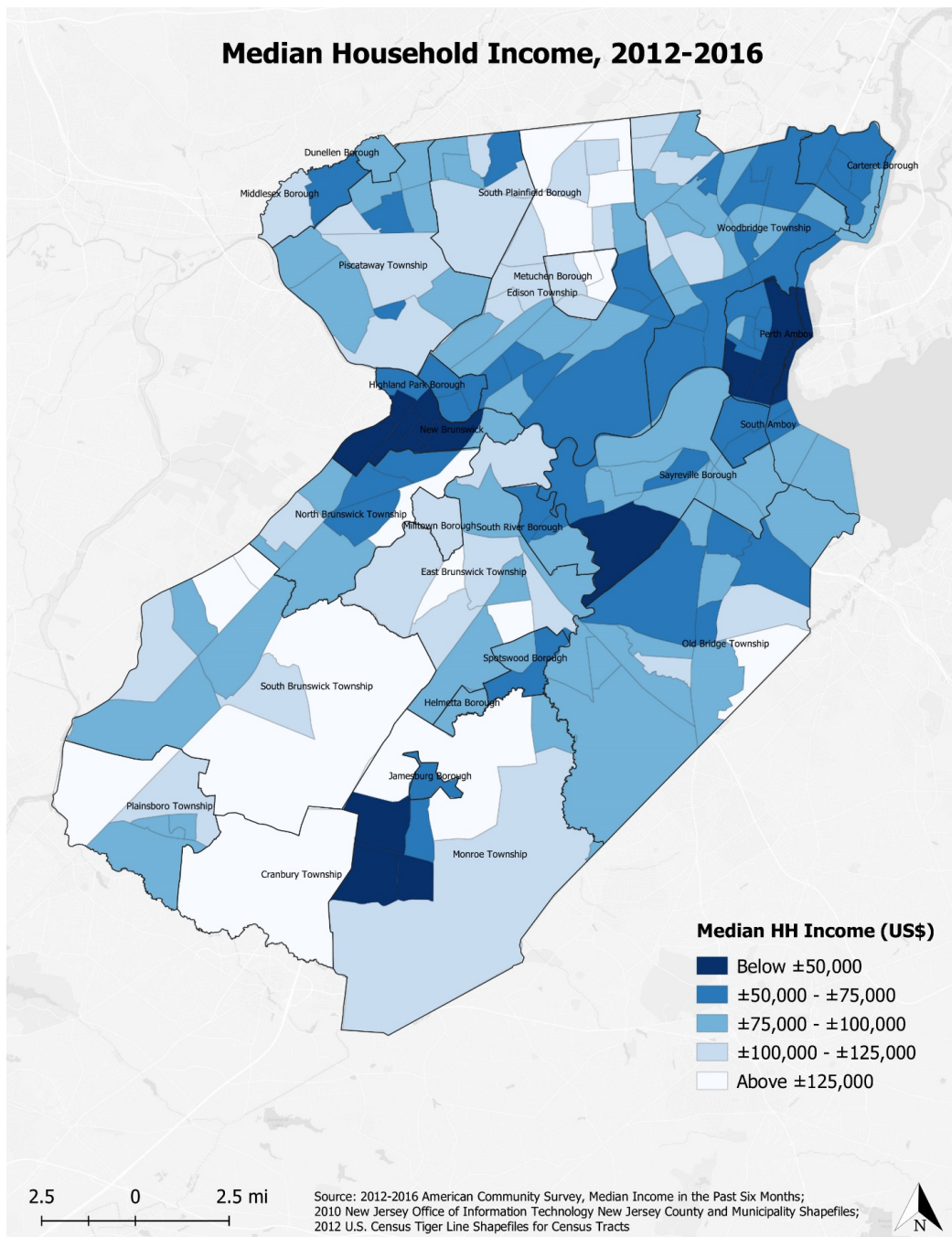
4.04 Piscataway	674	±280	13.6	±5.2	65,039	±9338	6.1	±1.7	59
25 Woodbridge	669	±385	9.2	±5.2	80,700	±5578	6.0	±2.8	117
71.03 Sayreville	655	±359	13.0	±7.2	46,989	±8800	0.5	±0.5	56
68 South River	642	±376	13.1	±7.0	61,250	±5675	5.0	±1.5	52

Source: ACS 2012-2016, HUD Picture of Subsidized Households 2017

*People served by HUD subsidized programs (Public Housing, Housing Choice Vouchers, and Multifamily Assisted Housing).

***'NA' = insufficient (less than 11 reported households or 50% reporting) or unavailable (missing answer) data (HUD, 2017).

Figure 3. Map of Median Household Income in Middlesex County 2012-2016



Food Pantry Infrastructure in Middlesex County

To learn more about the emergency food system that serves Middlesex County, we reviewed the results of MCFOODS' 2018 Food Pantry Survey. MCFOODS distributed the survey to the 105 pantries in its network in 2018, and 56 food pantries responded.² The survey sought to capture information about each food pantry including how often clients are allowed to access food, how much food they receive, how much and what type of food storage space the pantry has, and what challenges pantries and clients face. While the survey provided an exceptional amount of information about the emergency food system and individual pantries, only about 53 percent of MCFOODS-networked pantries responded which means that we lack information from about half of the county's food pantries. Additionally, many pantries responded to survey questions in different ways and or do not regularly collect data which makes it difficult to aggregate information from answers to some questions.

MCFOODS also maintains a food pantry directory which enabled us to map the location of each food pantry. We show the location of MCFOODS-networked food pantries and identify areas that may have households with underserved food needs. Food pantries are concentrated in New Brunswick (36 pantries including pantries at individual schools and early child learning centers) and Perth Amboy (12 pantries) (Community FoodBank of New Jersey, 2018; Homeless Shelter Directory, n.d.; McNamara, n.d.; MCFOODS Directory, 2018).³

In their food pantry survey, MCFOODS asked pantry staff about the challenges that they and their clients experience. Pantry staff described difficulty in obtaining pantry infrastructure and space, bridging language gaps, marketing pantries to clients and donors, receiving more and higher quality food, and serving clients who do not meet eligibility requirements. They report that their clients may find it difficult to access food pantries because they lack transportation, do not want to provide ID, or are unavailable when the pantry is open (MCFOODS Food Pantry Survey, 2018). Staff added that social stigma can prevent people from receiving assistance at food pantries. Older people, for example, may not want to ask for assistance. Some people visit pantries outside of their town to avoid seeing people they know or may not go to pantries even if they need food assistance. Pantries that provide federal and state food assistance must ask for proof of income or to meet other eligibility criteria and client identification, which not all people have.

Due to limited food, volunteers, and infrastructure, most pantries are only open for a few hours each month. According to the pantry hours listed in the MCFOODS Directory, pantries are most commonly open on Tuesday, Wednesday and Thursday mornings. Only 18 percent of MCFOODS pantries have night hours and 37 percent have weekend hours. These openings tend to be limited to a few hours at a time a few times per month. In fact, over 15 percent of pantries are only open once a month and at least 15 percent require appointments. Nearly half of the pantries, or 18 of the 39 respondents, allow clients to receive food only once a month. Nearly a quarter of the respondents (nine pantries), allow clients to come twice a month, and a quarter (eight pantries) allow clients to come four times a month. Only four pantries allow clients to receive food more frequently. Many pantries, however, provide food to households with emergency situations (MCFOODS Food Pantry Directory, 2018; MCFOODS Food Pantry Survey, 2018). Even if a person has access to a pantry, she or he likely receives food a few times a month. Moreover, the quantity of food received is likely a relatively small part of a person's overall diet.

² Approximately 105 of the 118 food pantries in Middlesex County are MCFOODS pantry network members.

³ For more information on need in New Brunswick and Perth Amboy see the 2017 Middlesex County Needs Assessment (MCAPG, 2017). For more information on food insecurity and pantry provision in New Brunswick see the New Brunswick Community Food Assessment (Newman, Cuite and Royals, 2017). For more information on food access in Perth Amboy see Healthier Perth Amboy (Healthier Perth Amboy Consortium, 2017).

Pantry Location in Relation to Low Income Households and Older Adults

Some areas are in greater need of food pantries than others. To look at the extent of this, we compared the areas with potential need for food assistance with the locations of food pantries. New Brunswick and Perth Amboy have higher numbers of people who are poor and many food pantries. Jamesburg also has a high share of low-income households and three pantries in less than 1 square mile (MCFOODS Food Pantry Directory, 2018). There may be need within other communities. For example, some households in Monroe's retirement communities are low-income. MCFOODS staff noted that retirement communities can be difficult to reach and Monroe likely merits further research. Northeastern Old Bridge is also an area with a higher share of older adults and with potentially unmet demand for food assistance. Other municipalities which show a potential need for more food pantry assistance include central and southwestern Sayreville, southern South Amboy, northern South River, northern Highland Park, eastern Plainsboro, southern Middlesex, Dunellen as well as some parts of New Brunswick, North Brunswick, Edison and East Brunswick. The next two sections examine Carteret and Woodbridge in more detail, following MCFOODS' request.

Table 4. Census Tracts with Potential Unmet Need for Food Assistance in Middlesex County 2012-2016, 2017 (ACS 2012-2016 Estimates, HUD 2017)

Census Tract	People in Poverty	Margin of Error	% in poverty	Margin of Error	Median income (dollars)	Margin of Error	% 75 Years +	Margin of Error	Number of people served by HUD pgrms.
52 New Brunswick	3,077	±676	54.6	±8.8	24,333	±4666	2	±1.1	166
60.02 New Brunswick	765	±292	26	±8.7	43,418	±8787	0.7	±0.5	170
45 Perth Amboy	1,838	±668	24.2	±8.0	48,641	±6659	1.1	±1.1	761
36 Carteret	1,773	±536	22	±6.7	60,778	±8094	2.8	±1.7	459
6.08 Piscataway	277	±119	16.9	±7.2	70,682	±23149	6.8	±2.0	NA**
47 Perth Amboy	736	±298	16.3	±6.3	62,454	±6450	0.8	±0.7	175
72.03 Sayreville	727	±270	15.1	±5.7	69,773	±13943	5.5	±1.9	471
67.03 East Brunswick	891	±447	14.7	±7.0	94,786	±18726	5.9	±2.1	NA
43 Perth Amboy	584	±246	14.3	±5.7	76,350	±10152	3.9	±1.9	164
41 Perth Amboy	419	±205	14.3	±7.3	61,964	±16581	4.3	±1.9	131
4.04 Piscataway	674	±280	13.6	±5.2	65,039	±9338	6.1	±1.7	59
44 Perth Amboy	605	±267	13.3	±6.2	58,500	±5866	2.9	±1.5	253
68 South River	642	±376	13.1	±7.0	61,250	±5675	5	±1.5	52
71.03 Sayreville	655	±359	13	±7.2	46,989	±8800	0.5	±0.5	56
82.06 Monroe	456	±260	12.4	±6.8	34,833	±6990	41	±6.2	NA
62.07 North Brunswick	786	±396	12.1	±6.0	58,583	±12549	4.9	±1.7	195
42 Perth Amboy	349	±187	11.6	±6.0	64,375	±7384	5.9	±2.1	134
40 Perth Amboy	448	±200	11.5	±5.1	55,929	±6696	7.4	±2.9	584
76 South Amboy	616	±327	11.2	±6.0	65,636	±27205	8	±3.0	284
18.04 Edison	464	±303	11.1	±7.2	58,831	±10118	3.2	±1.5	25
94 East Brunswick	578	±325	10.8	±6.0	84,928	±15451	2.4	±1.4	26

32.03 Woodbridge	349	±190	10.1	±5.2	71,667	±13928	1.8	±1.2	166
86.06 Plainsboro	405	±169	9.8	±4.2	76,373	±9189	0.8	±0.9	46
3 Dunellen	711	±366	9.7	±5.0	76,333	±13943	5.4	±2.5	87
11 Highland Park	423	±162	9.5	±3.7	71,220	±11783	3.2	±1.5	70
1 Middlesex	769	±727	9.4	±8.7	106,786	±26179	6.4	±2.4	NA
71.01 Sayreville	348	±234	9	±6.3	74,076	±20765	4	±2.1	47
26.04 Woodbridge	556	±469	8.9	±7.2	85,000	±19552	9.4	±2.2	NA
90 Woodbridge	274	±162	8.9	±5.2	62,369	±16568	1.8	±0.8	166
31.02 Woodbridge	441	±291	8.6	±5.7	85,931	±7580	4.4	±1.4	27

Source: ACS 2012-2016, HUD Picture of Subsidized Households 2017

Carteret

Carteret is located in the northeastern corner of Middlesex County. With 23,966 (±43) residents in 4.42 square miles, it has a population density of 5,422 people per square mile and is more densely populated than Middlesex County. The median household income is \$67,776 (±\$5,495) and at 10.1 percent (±2.7) it has the third greatest share of poor families in the county after New Brunswick and Perth Amboy (ACS, 2012-2016). Census tract 36 ranks in the top 10 Middlesex County tracts for residents who use Housing Choice Vouchers and in the top 20 for people below the poverty level. Carteret has two public housing developments. Located on the south side of Carteret in tract 38, EDW J. Dolan HMS is home to 238 low-income residents who have a household median income of \$20,456. Jeanette Smith public housing development is just south of EDW, also in tract 38. The household median income in the Jeanette Smith development is \$14,577, and it houses 164 low-income residents. Within three blocks, there are 402 low-income residents (HUD, 2017). Tract 36 and tract 38 are potentially in need of food assistance: while tract 36 has a higher share of people below the poverty line, tract 38 has a higher number of public residents. Both tracts have a similar number of people who use housing vouchers.

Table 5. Number of People in Poverty and in Subsidized Housing in Selected Census Tracts in Carteret 2012-2016, 2017 (ACS 2012-2016 Estimates, HUD 2017)

Census Tract	Number of Public Housing Residents	Number of People with Housing Choice Vouchers	Number of People in Poverty	Margin of Error	% Families in Poverty	Margin of Error	Median HH Income (dollars)	Margin of Error
36 Carteret	NA	459	1,773	±536	17.9	±6.2	60,778	±8,094
38 Carteret	347	431	932	±383	8.8	±5	67,964	±7,581

Source: ACS 2012-2016, HUD Picture of Subsidized Households 2017

Carteret has two food pantries: Calvary Baptist Church and St. Joseph's Parish, both in the MCFOODS network.⁴ Calvary Baptist Church: Reflection of God Ministry the Way distributes food on Saturdays from 11:00 a.m. to 1:00 p.m. St. Joseph's Parish, St. Vincent De Paul Food Pantry distributes non-perishable items four times per month and engages more than 50 volunteers. The pantry serves only Carteret residents and issues client pantry ID cards. The pantries are near 829 to 1,326 low-income households, including residents of the city's public housing and 315 Housing Choice Voucher recipients. Eastern and southern Carteret have the greatest concentration of low-income residents and HCV recipients, and the greatest concentration of potential need may be in eastern and southern Carteret.

Transportation ranks as the most common challenge clients have concerning access to food assistance (MCFOODS Food Pantry Survey, 2018). We placed a 0.5-mile radius around Carteret's three food pantries. This radial buffer illustrates an approximate distance that a person could walk in approximately 10 minutes (Carto, 2018). Most of southern Carteret can be walked in ten-minutes, and small portions of Carteret City and eastern Carteret are within a ten-minute walk of the food pantries. All of western Carteret, a majority of Carteret City and eastern Carteret cannot immediately access a food pantry by foot. Carteret has 20 bus stations. New Jersey Transit buses to Woodbridge and Perth Amboy offer residents access to all three of Carteret's food pantries, and the last four stations in Carteret are within a five to ten minute walk of all three food pantries.

Woodbridge

Woodbridge Township includes Colonia, Iselin, Avenel, Port Reading, Sewaren, and Fords and is located in the northeastern corner of Middlesex County, just west of Carteret. A large municipality of approximately 24 square miles and home to 101,131 (± 62) people, it is less dense than Carteret (ACS, 2012-2016). Though only 5 percent (± 1.1) of Woodbridge families live in poverty, Woodbridge's large population means that it has the third highest number of families in poverty (1,277, ± 301). Larger numbers of lower income families are located in tracts on the southeastern side near Perth Amboy, in one tract on the northeastern side near Carteret, and in one tract near Edison. Median household income varies by tract and is somewhat lower in Avenel and in two tracts in Woodbridge. Woodbridge's public housing projects are home to at least 217 residents, and 1,667 residents use a Housing Choice Voucher (HUD, 2017). A handful of food pantries are clustered just west of the NJ Turnpike in Woodbridge; others are located in the smaller towns of Sewaren, Avenel and Iselin. Additional research using qualitative approaches is needed to better understand the extent and geography of food insecurity in Woodbridge.

⁴ Living Water Family Outreach, which is now closed, distributed food to about 200 people once a month every third Friday between 10:00 a.m. and 3:00 p.m. Adults and children each comprised 38 percent of the pantry's clients; senior citizens comprised 25 percent. The pantry received funding from private donations and a grant from ShopRite (MCFOODS Food Pantry Survey, 2018; MCFOODS Pantry Directory, 2018).

Table 6. Number of People in Poverty and in Subsidized Housing in Woodbridge 2012-2016, 2017 (ACS 2012-2016 Estimates, HUD 2017)

Census Tract	Number of Public Housing Residents	Number of People with Housing Choice Vouchers	Number of People in Poverty	Margin of Error	% Families in Poverty	Margin of Error	Median HH (dollars)	Margin of Error
23.01 (Colonia)	NA	92	40	±47	1	±1.2	106,500	±7,437
23.02 (Colonia)	NA	NA	78	±73	2.1	±2	107,463	±16,703
24.01 (Colonia)	NA	40	142	±132	2.6	±2.4	97,132	±13,514
24.02 (Colonia)	NA	NA	59	±46	3.8	±3	111,750	±13,785
26.05 (Colonia)	NA	32	34	±44	1.2	±1.6	73,804	±14,030
25 (Iselin)	NA	117	669	±385	9.2	±5.2	80,700	±5,578
26.03 (Iselin)	NA	24	320	±204	6	±3.8	88,132	±7,030
26.04 (Iselin)	NA	NA	556	±469	8.9	±7.2	85,000	±19,552
27.01 (Avenal)	NA	41	335	±178	6.1	±3.2	76,359	±5,588
27.03 (Avenal)	NA	129	269	±174	4.8	±3.1	63,371	±4,800
90 (Avenal)	NA	166	274	±162	8.9	±5.2	62,369	±16,568
33 (Woodbridge)	NA	275	595	±276	11.3	±4.9	60,813	±3,067
28.05 (Woodbridge)	NA	NA	54	±35	2	±1.3	94,539	±19,661
29.01 (Woodbridge)	NA	31	111	±67	3.3	±2	77,288	±9,263
29.02 (Woodbridge)	69	232	513	±285	17.4	±9	59,333	±9,870
30.01 (Woodbridge)	148	67	397	±215	9.6	±5.1	75,089	±17,716
30.02 (Woodbridge)	NA	31	127	±118	2.1	±1.9	100,596	±6,865
31.01 (Fords)	NA	NA	51	±47	1.9	±1.8	106,364	±10,206
31.02 (Fords)	NA	27	441	±291	8.6	±5.7	85,931	±7,580
32.01 (Fords)	NA	NA	163	±112	4.9	±3.3	83,935	±8,134
32.03 (Fords)	NA	166	349	±190	10.1	±5.2	71,667	±13,928
34.01 (Sewaren)	NA	102	113	±74	3.1	±2.1	71,000	±9,013
91 (Port Reading)	NA	95	261	±240	7.4	±6.4	85,743	±6,805

Source: ACS 2012-2016, HUD Picture of Subsidized Households 2017

Summary

Within Carteret, based on the number of low-income households and the number of households receiving housing assistance, the greatest need for food pantries may be in eastern and southern Carteret. Although there are three food pantries, these pantries may not be accessible or able to serve to everyone who needs them. Additionally, more research is needed to better understand the food security challenges within Woodbridge, which is comprised of a set of smaller communities. Based on the number of low-income households and housing assistance, there should be further research on the central eastern, central western, and southern regions.

Key Takeaways

We conducted this research to identify areas with higher numbers of lower income people and people aged 75 and older. We focused on these characteristics because they are often associated with higher rates of food insecurity. We explored the location of food pantries and looked for areas that appear to have higher need and few or no food pantries. We also reviewed the results of MCFOODS' Food Pantry Survey.

What we found is that among the areas that stand out as potentially requiring food assistance, some have food pantries nearby and some do not. For example, New Brunswick and Perth Amboy have the greatest relative need using nearly every indicator. These cities also have the greatest numbers of food pantries, and the pantries are working independently and in networks to bridge gaps. However, we know from the MCFOODS survey that food pantries face challenges in fully meeting the need for food. In Jamesburg, a higher number of households have incomes below the county average. There are, however, three existing pantries working to meet that need. Future analyses could consider exploring areas of need in central and southwestern Sayreville, central North Brunswick, East Brunswick, Edison, northern Highland Park, northern South River, southern South Amboy, eastern Plainsboro, southern Middlesex and Dunellen. We also found high numbers of low-income households and households with people over 75 in western Monroe where age-restricted communities are located. Future researchers could also gather data using other types of methods. In-depth field research may shed more light on the types of people who lack food security, where they live, and why they do not have sufficient food.

There are limitations to this study. Identifying areas of unmet need was challenging in practice. Large error rates for ACS estimates made it difficult to meaningfully assess these characteristics at the census tract level and the presence of groups with these characteristics only suggests the potential for food insecurity rather than its presence. In our analysis, we relied on the MCFOODS pantry survey. Survey data can be difficult to interpret, and we only received information from approximately half of the pantries in MCFOODS' network. Therefore, we emphasize that this is a preliminary analysis. Ultimately, we cannot determine the extent of food insecurity in particular areas, nor can we assess how well pantries are serving particular areas. Making those conclusions requires a larger body of evidence and a different methodological approach and research design.

Moreover, food insecurity is a complex problem. Food insecurity is associated with a range of issues including low wages, economic and housing insecurity, healthcare costs, disability, and a lack of access to healthy, affordable foods (Rose, 1999; Coleman-Jensen & Nord, 2013; Gundersen, Kreider & Pepper, 2011; Kirkpatrick & Tarasuk, 2011; Feeding America, n.d.). In other words, while increasing access to food pantries and destigmatizing their use are important steps towards alleviating food insecurity, broader policy responses are needed to address its intersecting causes.

Nevertheless, this preliminary inquiry into areas of unmet demand for food assistance provides a basis for further research. Below we outline the next steps that can be taken.

Next Steps

This report is the first step of a larger research effort to identify communities with unaddressed food insecurity. Future research could verify and strengthen the conclusions in this report by conducting field research to better understand food insecurity within neighborhoods. Future researchers may benefit from learning how organizations such as Feeding America and others have calculated food insecurity. Helpful additional data sources may include information about recipients of nutrition programs such as SNAP.

To learn more about food pantry provision in places, future research could involve supporting MCFOODS by developing a robust pantry survey and conducting in-person surveys and food pantry walk-throughs. The earlier work conducted in New Brunswick incorporated volunteerism during food aggregation and distribution to better understand the challenges pantries face. Researchers should consider strategies that enable them to gather consistent information about the quantity and type of food provided by using consistent measures across pantries where possible and or by contacting the Community FoodBank of New Jersey (Chapnick, Barnidge, Sawicki & Elliott, 2017; Gany et al., 2012; Ginsburg et al., 2018).

As researchers continue to understand food insecurity in Middlesex County, they can better inform efforts to alleviate it. Although these suggestions should be context specific, they likely will include ideas related to adding new pantries as well as supporting existing ones. No doubt both approaches will necessitate thinking about pantry staffing. Although the research may suggest a need for a pantry or changes to existing pantries, many pantries are run by low-resourced volunteers. MCFOODS staff cautioned that new pantries are not usually established nor sustained due to pressure from an external group. Therefore, future research might study what the mechanisms are for increasing food assistance in a particular area. Researchers may want to consider the effectiveness of different interventions and consider key stakeholders in specific areas. Additionally, research could determine best practices for pantries in Middlesex County and consider expanding food access through existing pantries and innovative techniques.

Although we know that food pantries offer important supplemental food assistance, they are a small part of the emergency food system. Despite this report's focus on food pantries, the greatest direct effects on food insecurity come from federal assistance programs. These programs, including SNAP, WIC and the NSLP, are the largest components of the emergency food system. Federal assistance programs provide "nearly 20 times the amount of food assistance as do private charities" (Bread for the World, 2014). Therefore, as research continues on food assistance in Middlesex County, researchers should consider the potential effect of increased federal food assistance, job training, job creation, education, and economic development, in addition to increasing food pantry provision.

Local governments also have the potential to combat food insecurity in a sustainable and systemic way. This could occur by directly investing in food pantry provision, like in New Brunswick where the city government is considering establishing a larger, city-wide food pantry (Dunzik, 2018). It could also occur by channeling greater amounts of state funds to food assistance programs, including food banks, and changing the way these are distributed. Even though communities in the US may have enough resources for hunger-relief, these are often poorly distributed and organizations often lack adequate capacity (Arnold, 2004). Additionally, changes to other policies can increase the number of resources households have and indirectly increase food security. For instance, policies which decrease housing costs often increase the amount of resources people have to spend on food. Likewise, increasing access to health insurance protects against financial difficulties that can lead to food insecurity. Therefore, working with governments to change social policy, even at the local level, could address some of the root causes of food insecurity.

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Appendix A. Select Tables and Maps

Table 7. HUD Multifamily Assisted Units in Middlesex County 2017

Municipality	Project Name	Number of Assisted Units	Number of People	Average HH Income	% Extremely Low Income*	% Disabled	% Senior Headed HH 62+	% Senior Headed HH 85+
Carteret	Roosevelt Village	90	197	17,423	78	9	21	1
Dunellen	Jackson Avenue, Inc.	3	NA	NA	NA	NA	NA	NA
East Brunswick	Oak Creek Village	79	99	11,003	96	4	98	22
	Hall's Corner Apartments	65	63	14,901	86	5	100	28
	Hall's Corner Apartments	0	NA	NA	NA	NA	NA	NA
	Oak Creek Village II	39	50	10,551	100	2	100	21
Edison	Menlo Manor	239	328	10,046	93	2	100	27
	Plainfield Ave, Inc.	3	NA	NA	NA	NA	NA	NA
	Sturgis Consumer Home	3	NA	NA	NA	NA	NA	NA
South Brunswick (Kendall Park)	Charleston Place Apartments	54	69	14,576	93	28	82	16
South Brunswick (Monmouth Junction)	Oak Woods Senior Residence	73	85	16,208	79	1	100	25
	Cil Woods, Inc.	16	16	21,173	56	100	13	NA
Metuchen	Metuchen Senior Citizens	122	146	13,927	89	0	100	29
Middlesex	Watchung Terrace	86	94	18,645	67	0	100	34
Monroe	New Beginnings / Prospect Plains	0	NA	NA	NA	NA	NA	NA
New Brunswick	New Brunswick Apartments	24	56	24,399	58	9	29	NA
	John P. Fricano Towers	212	267	10,500	98	16	88	22
	St. Mary's Apartments	132	154	11,869	97	7	99	16
	Fulton Gardens Associates	51	91	14,781	81	16	21	2
	Lord Stirling Senior Housing	38	47	13,496	95	2	100	5
North Brunswick	Martin Gerber	205	272	12,840	93	11	90	16
Old Bridge	Community House At St. Thomas	8	NA	NA	NA	NA	NA	NA
Piscataway	Winans 2004	5	NA	NA	NA	NA	NA	NA
	Piscataway Group Home	7	NA	NA	NA	NA	NA	NA

South Plainfield	Lakeview at Sayreville	300	461	14,426	90	32	65	6
Sayreville (Parlin)	Foster Avenue, Inc.	3	NA	NA	NA	NA	NA	NA
South River	Willett Manor	74	92	13,572	92	9	93	4
	South River Landing	74	84	13,823	90	0	100	26
Spotswood	Older American Housing in Spotswood, Inc.	73	79	16,536	82	4	100	15
	Woodmere	125	142	16,181	80	8	96	27

Source: HUD Picture of Subsidized Households 2017

* HUD defines 'extremely low income' as the percentage of households with income below 30% of local area median family incomes, adjusted for household size.

Table 8. Census tracts with highest numbers residents living in Public or Multifamily Assisted Housing or using Housing Choice Vouchers in Middlesex County 2017

Census Tract	Number of People in HUD Multifamily Assisted Housing	Census Tract	Number of People with Housing Choice Vouchers	Census Tract	Number of Residents in Public Housing
72.03 Sayreville	456	45 Perth Amboy	754	55 New Brunswick	597
38 Carteret	391	93 New Brunswick	532	38 Carteret	347
93.00 New Brunswick	371	40 Perth Amboy	514	14.13 Edison	269
14.10 Edison	328	49 Perth Amboy	470	12 Highland Park	161
61.01 North Brunswick	270	36 Carteret	459	30.01 Woodbridge	148
79.12 Old Bridge	252	38 Carteret	431	13.05 Edison	99
81.02 Spotswood	222	48 Perth Amboy	382	76 South Amboy	71
70 South River	176	46 Perth Amboy	369	40 Perth Amboy	70
22 Metuchen	146	14.13 Edison	278	29.02 Woodbridge	69
57 New Brunswick	142	33 Woodbridge	275	41 Perth Amboy	34

Source: HUD Picture of Subsidized Households 2017

Table 9. Estimated Number of Families in Poverty in Middlesex County 2012-2016 (ACS 2012-2016)

Municipality	All Families	Margin of Error	% of Families in Poverty	Margin of Error
Carteret	6,046	±253.0	10.1	±2.7
Cranbury	1,036	±75.0	0.7	±1.1
Dunellen	1,781	±128.0	8.9	±6.7
East Brunswick	1,3001	±281.0	6.2	±1.4
Edison township	27,326	±459.0	3.8	±0.9
Helmetta	622	±65.0	2.6	±2.1
Highland	3,468	±155.0	8.4	±2.9
Jamesburg	1,518	±148.0	7.6	±6.0
Metuchen	3,653	±154.0	1.4	±1.0
Middlesex	3,471	±207.0	3.3	±3.2
Milltown	1,965	±114.0	7.1	±6.0
Monroe	12,045	±288.0	3.6	±1.1
New Brunswick	8,511	±416.0	28.9	±3.4
North Brunswick	10,416	±350.0	5	±1.6
Old Bridge township	16,900	±413.0	2.6	±0.7
Perth Amboy city	12,042	±346.0	18.5	±2.4
Piscataway township	12,323	±395.0	5.4	±1.5
Plainsboro township	6,316	±212.0	2.2	±1.1
Sayreville	11,362	±238.0	5.8	±1.7
South Amboy	2,247	±185.0	8.5	±5.2
South Brunswick	12,242	±290.0	3.1	±1.2
South Plainfield	6,155	±210.0	3.1	±1.5
South River	3,815	±262.0	7.8	±3.4
Spotswood	2,215	±108.0	5.3	±3.6
Woodbridge	25,542	±484.0	5	±1.1

Source: ACS 2012-2016

Table 10. Census Tracts with Highest Estimated Number of Families in Poverty in Middlesex County 2012-2016 (ACS 2012-2016)

Census Tract	% of Families in Poverty	Margin of Error
58.00 New Brunswick	49.7	±11.4
53 New Brunswick	40.9	±9.7
56.02 New Brunswick	34.9	±9
56.01 New Brunswick	31.5	±10.5
52 New Brunswick	29.8	±16.7
48 Perth Amboy	29.0	±8.5
60.02 New Brunswick	28.9	±13
55 New Brunswick	28.6	±10.7
93 New Brunswick	27.5	±10.4
49 Perth Amboy	23.0	±7.7
45 Perth Amboy	22.5	±7.7
57 New Brunswick	22.1	±8.6
46 Perth Amboy	21.7	±7.9
36 Carteret Borough	17.9	±6.2
44 Perth Amboy	16.6	±8.1
67.03 East Brunswick	11.4	±5.1
66.04 East Brunswick	9.5	±6.1
38 Carteret Borough	8.8	±5
62.03 North Brunswick	7.7	±5.4
82.02 Monroe	4.8	±2.2

Source: ACS 2012-2016

Table 11. Public Housing, Housing Choice Vouchers and Multifamily Assisted Housing in Middlesex County 2012-2016 (ACS 2012-2016)

Municipality	Estimated Housing Units 2012-2016	Margin of Error	Number of Public Housing Projects 2017	Number of Public Housing Units 2017	Number of Public Housing Residents 2017	Number of People Served by Housing Choice Vouchers 2017	Number of Residents in HUD Multifamily Subsidized Units 2017
Carteret	8,467	±347	2	202	347	1040	391
Cranbury	1,395	±83	NA	NA	NA	NA	NA
Dunellen	2,522	±159	NA	NA	NA	87	NA
East Brunswick	17,620	±350	NA	NA	NA	162	211
Edison	37,142	±590	2	144	368	1125	329
Helmetta	935	±61	NA	NA	NA	NA	NA
Highland Park	6,115	±253	1	124	161	271	NA
Jamesburg	2,288	±171	NA	NA	NA	33	NA
Metuchen	5,323	±174	NA	NA	NA	34	146
Middlesex	4,803	±336	NA	NA	NA	81	94
Milltown	2,705	±186	NA	NA	NA	33	NA
Monroe	18,831	±389	NA	3	NA	185	NA
New Brunswick	15,736	±649	3	284	624	1737	610
North Brunswick	15,061	±432	NA	NA	NA	750	271
Old Bridge	25,471	±590	NA	NA	NA	256	252
Perth Amboy	16,641	±427	4	60	104	3522	NA
Piscataway	17,139	±529	NA	NA	NA	397	NA
Plainsboro	10,545	±334	NA	NA	NA	NA	NA
Sayreville	17,118	±438	NA	NA	NA	464	457
South Amboy	3,744	±243	1	74	71	296	NA
South Brunswick	16,161	±346	NA	NA	NA	112	NA
South Plainfield	8,080	±273	NA	NA	NA	51	NA
South River	6,104	±358	NA	NA	NA	146	176
Spotswood	3,451	±147	NA	NA	NA	34	176
Woodbridge	35,435	±511	2	130	217	676	NA

Source: ACS 2012-2016, HUD Picture of Subsidized Households 2017

Note: The HUD Picture of Subsidized Households municipal-level dataset (PLACE) has entries for unincorporated communities and/or census designated places for: Cranbury (Cranbury CDP and Remainder of Cranbury), Monroe (Remainder of Monroe), Old Bridge (Old Bridge CDP and Remainder of Old Bridge), Piscataway (Remainder of Piscataway), Plainsboro (Plainsboro Center CDP and Remainder of Plainsboro), South Brunswick (Remainder of South Brunswick), Woodbridge (Woodbridge CDP and Remainder of Woodbridge).

Table 12. Ranking Census Tracts with Highest Estimated Share of Residents 75+ in Middlesex County 2012-2016 (ACS 2012-2016)

Census Tract	Total Population	% 75 Years +	Margin of Error
82.07 Monroe	2,607	54.9	±7.2
82.05 Monroe	3,156	52.6	±7.2
82.06 Monroe	3,754	41	±6.2
82.04 Monroe	4,255	36.8	±4.7
79.10 Old Bridge	3,459	16.7	±2.8
14.17 Edison	2,184	15.5	±3.3
19.01 Edison	5,038	13.6	±3.7
86.01 Plainsboro	5,483	12.1	±1.9
31.01 Woodbridge	2,636	10.8	±1.8
22 Metuchen	3,679	10.5	±2.6
23.01 Woodbridge	3,952	10.5	±4.2
81.02 Spotswood	3,882	10.3	±2.3
14.10 Edison	4,244	10	±2.1
66.05 East Brunswick	3,876	10	±2.7

Source: ACS 2012-2016

Note: The selected tracts are those where over 10% of residents are 75 years or older.

Figure 4. Map of Population 75 Years and Older in Middlesex County 2012-2016

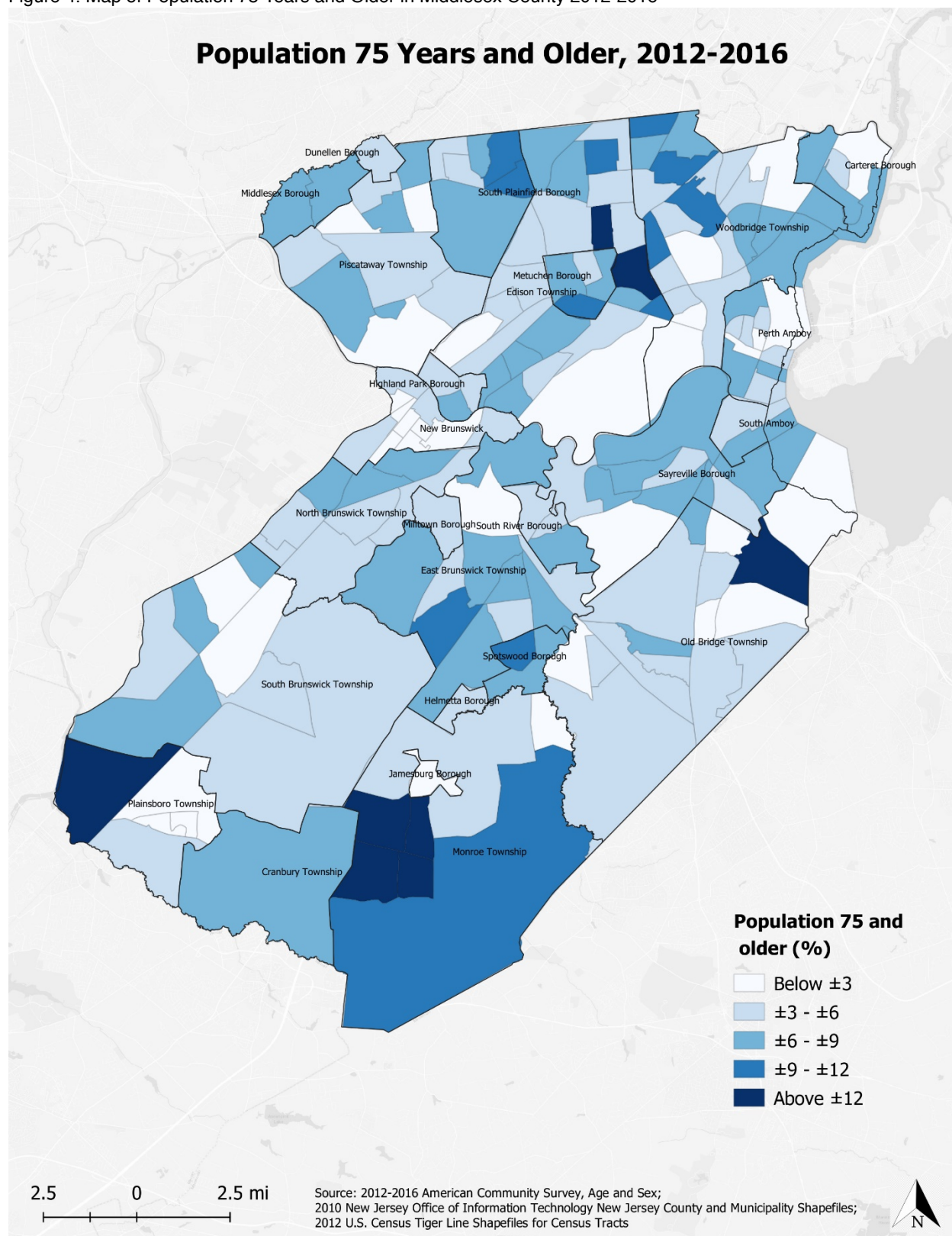


Figure 5. Map of Food Pantries and Households with HCV in Middlesex County

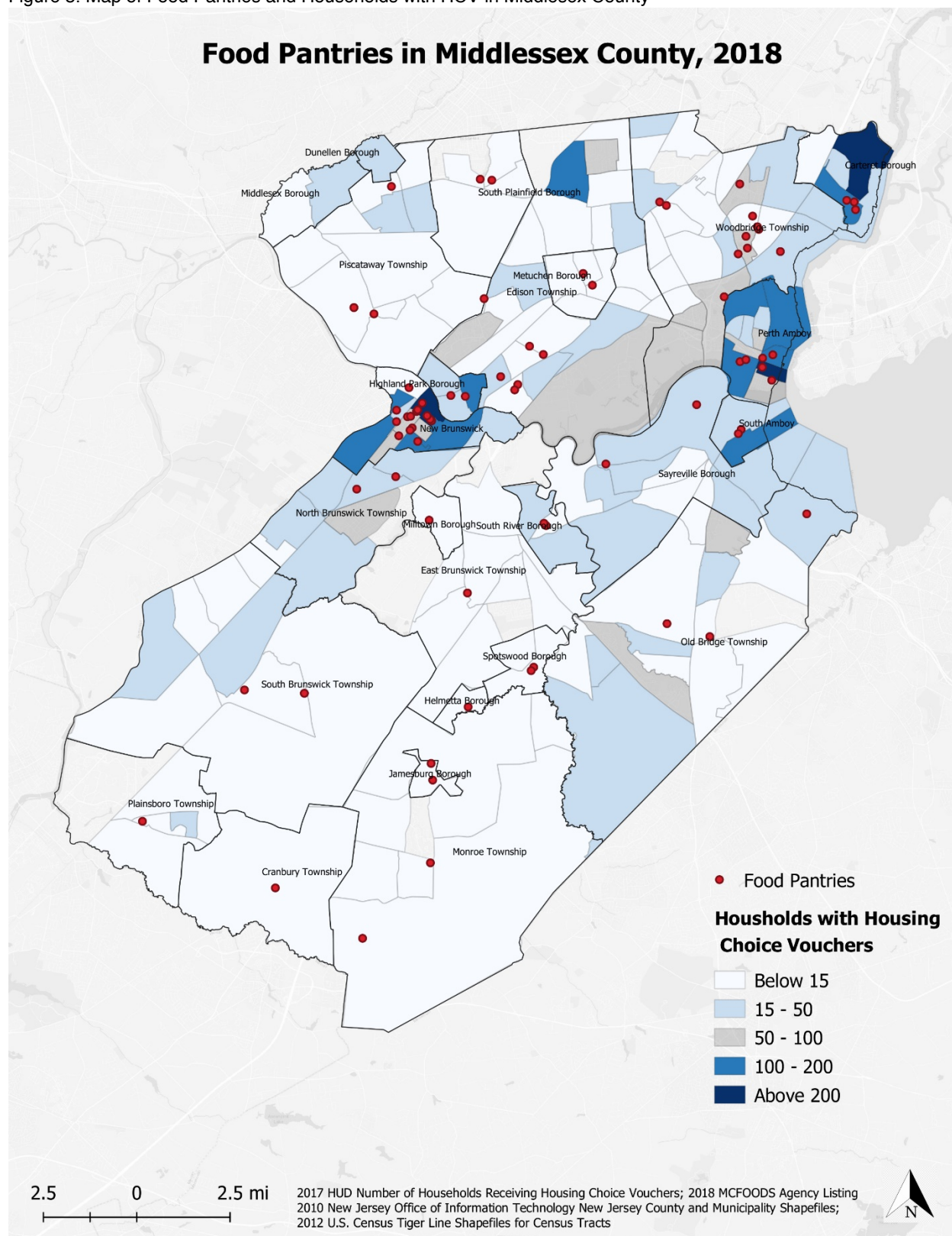


Figure 6. Map of Food Pantries and Households with Housing Choice Vouchers in Carteret Borough

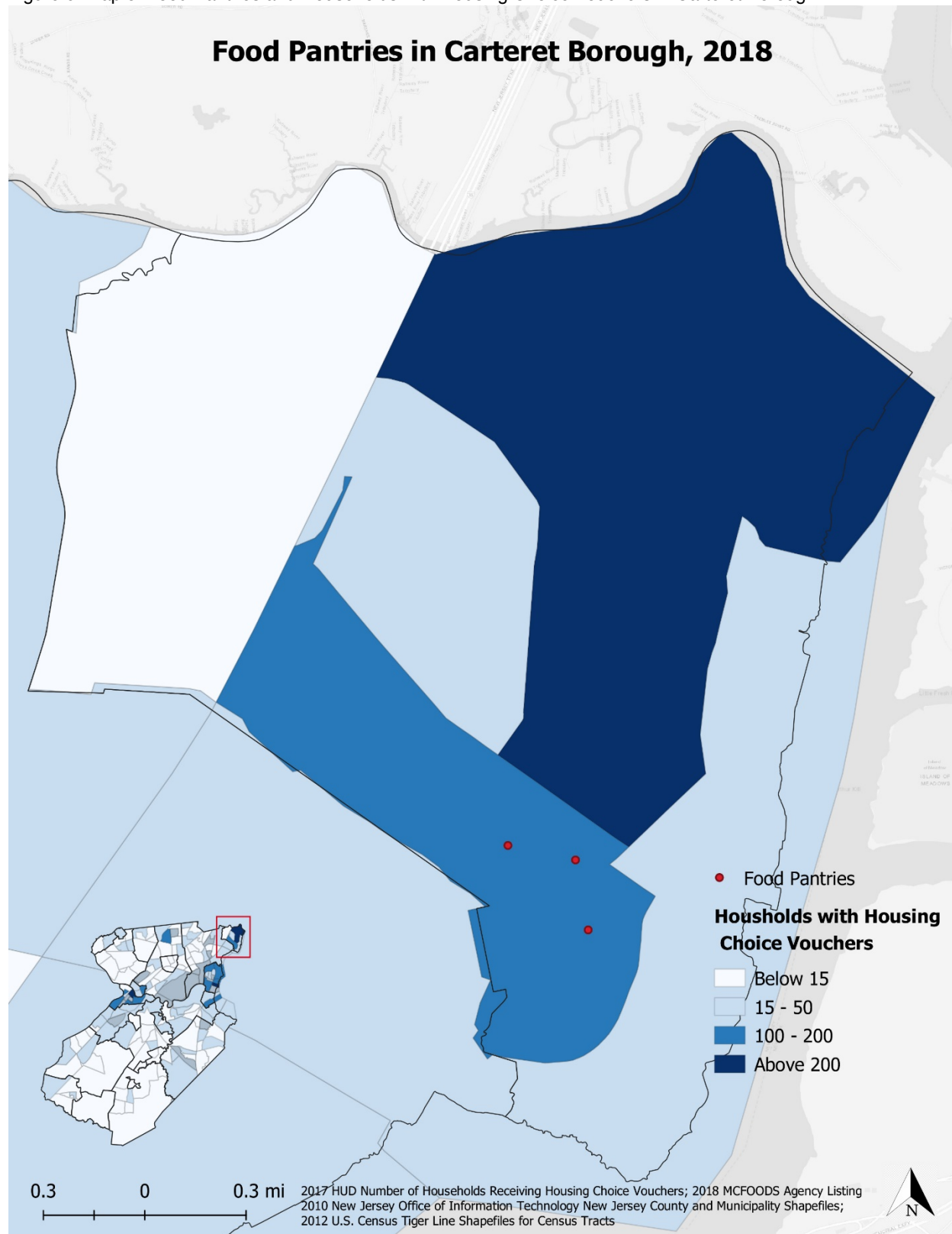


Figure 7. Map of Food Pantries and Households with Housing Choice Vouchers in Woodbridge Township

Food Pantries in Woodbridge Township, 2018

