

Running on Empty:

Nutritional Access for Children in Cook County, IL



February 2010

Prepared by the Social IMPACT Research Center for the Greater Chicago Food Depository

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The Social IMPACT Research Center (IMPACT) is a nonprofit organization that investigates today's most pressing social issues and solutions to inform and equip those working toward a just global society. IMPACT, a program of Heartland Alliance for Human Needs & Human Rights, provides research, policy analysis, consulting, technical assistance, communications, and coalition building to projects in Illinois, the Midwest, and nationally. Visit www.heartlandalliance.org/research to learn more.

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The Greater Chicago Food Depository, Chicago's food bank, is a nonprofit food distribution and training center providing food for hungry people while striving to end hunger in our community. The Food Depository distributes donated and purchased food through a network of 600 pantries, soup kitchens, and shelters to 500,000 adults and children in Cook County every year. Innovative training programs and initiatives developed by the Food Depository also work to provide men, women, and children with the tools necessary to break their individual cycles of poverty. Visit www.chicagosfoodbank.org to learn more.

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Executive Summary

In an effort to make informed program expansion and improvement decisions, the Greater Chicago Food Depository commissioned the Social IMPACT Research Center of Heartland Alliance to conduct a study of child nutrition program coverage and child nutrition and hunger in Cook County, Illinois.

This study examined the geographic coverage of child nutrition programs to identify areas that have the greatest number of unserved children and have the worst program coverage. The study also took an in-depth look at the nutritional lives of children attending summer nutrition programs. Insights in these two areas are vital to helping organizations like the Greater Chicago Food Depository make sound programmatic and expansion decisions that will best meet the nutritional and hunger needs of Cook County's most vulnerable children.

Importance of Addressing Child Hunger

Despite America's vast wealth, child hunger, along with its numerous consequences, continues to be a persistent national issue. Millions of households in the United States struggle to consistently obtain adequate, high quality food – a situation called food insecurity. In 2008, there were 17.1 million households, representing 49.1 million people, experiencing food insecurity in the United States.¹ Nationally, the rate of food insecure households rose from 11.1 percent in 2007 to 14.6 percent in 2008. In Illinois, 11.1 percent of households experienced food insecurity.*

Children are particularly susceptible to food insecurity: 16.7 million food insecure people are children, with a national child food insecurity rate of 22.5 percent.² Overall, households with children have nearly twice the rate of food insecurity (21.0 percent) as those without children (11.3 percent).

Rising food insecurity and hunger are byproducts of rising poverty and declining incomes. Since 2000:³

- Nationally, an additional 5.2 million people are in poverty. Median household income declined by \$2,235.
- In Illinois, an additional 240,280 people are in poverty. Median household income declined by \$3,968.
- In Cook County, an additional 55,789 people are in poverty. Median household income declined by \$4,758.

* Though national data reflect 2008, data for 3 years, 2006-2008, were combined to provide more reliable statistics at the state level.

This eroding economic stability, coupled with the rising price of food and other basic goods this decade, has left many struggling to feed their families.

Adequate nutritious food is critical for healthy living and for increasing food security, yet Americans' dietary intake often does not meet nutritionists' recommendations for what people should eat to maintain healthy lives. While many Americans all along the socioeconomic spectrum exhibit poor eating habits, people with low incomes have fewer opportunities to improve their diets; the consumption of highly nutritious food is limited by the cost of such food and by limited access to stores that serve a variety of fresh, healthy foods.

For a family trying to feed its children on a tight budget, their dollar must be stretched as far as possible. Filling, high calorie foods are often less expensive and more readily available in low-income communities than highly nutritious but more expensive foods. Studies conducted in Chicago have found that "food deserts," areas where individuals and families do not have access to grocery stores that offer healthy foods such as fresh fruits and vegetables, exist mostly on the South and West sides of the city⁴ where there are also higher rates of low-income and minority households. Food deserts in Chicago affect nearly 200,000 children.⁵

Addressing child hunger is important due to how poor nutrition, food insecurity, and hunger limit development and contribute to poor outcomes for children:

- Research shows that one of the most powerful predictors among the many that influence a child's physical and cognitive development is a child's level of food insecurity.^{6 7}
- Not having access to a variety of highly nutritious food is a key risk factor in poor physical health, mental health, developmental outcomes, and education outcomes for children.^{8 9}
- Longitudinal research has shown a relationship between food insecurity and children's academic performance, weight, and social development.¹⁰

There are a variety of federally-funded, state-administered nutrition programs that seek to mitigate these negative affects by addressing child hunger and children's nutritional needs. The majority of these programs are delivered through the institutions that children frequent, most notably schools, but also daycare centers, afterschool programs, and family childcare homes, among others. These programs, along with the Supplemental Nutrition Assistance Program (SNAP, formerly called food stamps), which provides resources to needy families to purchase food, are nutritional cornerstones for millions of low-income families with children in Illinois.

This study captures the scale of child hunger and nutrition in Cook County, Illinois, and explores how well these programs are meeting children's needs.

Unserved Children & Program Coverage Findings

Need for Child Nutrition Programs

For the purposes of this study, “need” was defined as eligibility for free and reduced-price school lunches through the National School Lunch Program.

School children are eligible for free and reduced lunches if their family’s income falls below 130% of the federal poverty line (to be eligible to receive meals for free) or 185% of the federal poverty line (to be eligible to receive meals at a reduced rate).

In September 2009, 465,606 Cook County children were eligible for free lunches and 59,113 eligible for the reduced-price meals.

Data for the first portion of this study were requested from the state for six child nutrition programs: the National School Lunch Program, the School Breakfast Program, the Afterschool Cares Program, the Seamless Summer Option, the Summer Food Service Program, and the Child and Adult Care Food Program. The data, which included information by site on the number of meals/children served, were aggregated to Chicago community area and municipal levels. The need in any given community area and municipality was then matched with the number of children served by a program and with other program components, such as number of sites. The analysis revealed the geographies that have the highest absolute number of unserved children and the worst overall program coverage in relation to need.

Nutrition programs are a critical line of defense against child hunger, though at their current scale they fall far short of meeting the need in Cook County, Illinois. For instance, taken together, all summer child nutrition programs in Chicago community areas served only 4.50 lunches *in the entire month of July* for every 1 child in need, despite there being 31 days (21 week days) during which lunch could be served.

Due to a limited number of sites serving them, certain meals, such as snacks, barely make a dent in meeting the need. And no single meal, not even lunch during the school year which is bolstered by the presence of the National School Lunch Program, is serving the ideal 21 meals (one on every weekday) for every one child in need.

When compared to school year program coverage, summer program coverage stacks up poorly. When school lets out for the summer, the school meals that hundreds of thousands of Cook County children rely on end leaving many families struggling to fill this nutritional void. There are simply not enough summer program sites (and/or enough capacity at those sites) to fill even half the gap left when school year programs end.

This study’s findings highlight specific Chicago community areas and Suburban Cook County municipalities with the highest number of children in need *not* served on an average day by nutrition programs and also the areas with worst program coverage as measured by a cumulative ratio analysis of program components. While program investments in the highlighted areas are of critical importance in terms of filling the *worst*

gap in coverage, program expansion efforts are needed – year round, but particularly during in the summer – in nearly every one of Chicago’s 77 community areas and every one of the 106 Suburban Cook County municipalities included in this analysis.

Summer Program Coverage

Only one of Chicago’s 77 official community areas, O’Hare, had no summer program sites at all. Eighteen Suburban Cook County municipalities with children in need had no summer program sites at all.

Of the areas that did have nutrition programs operating in the summer, the following Chicago community areas and Suburban Cook County municipalities had the highest number of unserved children on an average day during the summer. Bolded geographies indicate that the community area or municipality also appears on the list of areas with the highest number of unserved children during the school year.

Chicago Community Areas With the Highest Number of Unserved Children During the Summer

- | | | |
|--------------------------|----------------------------|-------------------------|
| 1. South Lawndale | 8. New City | 15. Chicago Lawn |
| 2. Belmont Cragin | 9. Humboldt Park | 16. Irving Park |
| 3. Austin | 10. Douglas | 17. Roseland |
| 4. West Town | 11. North Lawndale | 18. Ashburn |
| 5. Near West Side | 12. Englewood | 19. West Englewood |
| 6. Gage Park | 13. Logan Square | 20. East Garfield Park |
| 7. Brighton Park | 14. Lower West Side | |

Suburban Cook County Municipalities With the Highest Number of Unserved Children During the Summer

- | | | |
|---------------------------|-------------------------|--------------------------|
| 1. Cicero | 8. Blue Island | 15. Wheeling |
| 2. Berwyn | 9. Evanston | 16. Oak Lawn |
| 3. Chicago Heights | 10. Maywood | 17. Park Forest |
| 4. Calumet City | 11. Melrose Park | 18. Northlake |
| 5. Harvey | 12. Dolton | 19. South Holland |
| 6. Palatine | 13. Lansing | 20. Bellwood |
| 7. Streamwood | 14. Des Plaines | |

The community areas and municipalities with the highest number of unserved children in the summer are clustered in certain regions of the city and county. The community areas with the highest number of unserved children are clustered on the northwest, west, and southwest sides of Chicago. Many of the suburban municipalities with the highest number of unserved children border the city of Chicago, particularly the southern and western boundaries. There are also a number of municipalities with the highest number of unserved children in north Suburban Cook County.

School Year Program Coverage

Municipalities and Chicago community areas are better served by child nutrition programs in the school year than in the summer, due largely to the far-reaching nature of school lunches and to a lesser extent school breakfasts (Illinois ranks last among all states in school breakfast participation).¹¹

Despite having better coverage than summer programs, there are still geographies, listed below, that have high numbers of unserved children and that would benefit from investments in school year child nutrition programming. Bolded geographies indicate that the municipality or community area also appears on the list of areas with the highest number of unserved children during the summer.

Chicago Community Areas With the Highest Number of Unserved Children During the School Year

1. Belmont Cragin	8. New City	15. West Ridge
2. South Lawndale	9. Douglas	16. Lower West Side
3. Near West Side	10. Humboldt Park	17. Roseland
4. West Town	11. Englewood	18. Ashburn
5. Austin	12. North Lawndale	19. Portage Park
6. Gage Park	13. Logan Square	20. Chicago Lawn
7. Brighton Park	14. Irving Park	

Suburban Cook County Municipalities With the Highest Number of Unserved Children During the School Year

1. Cicero	8. Evanston	15. Oak Lawn
2. Berwyn	9. Melrose Park	16. Wheeling
3. Chicago Heights	10. Blue Island	17. South Holland
4. Palatine	11. Maywood	18. Northlake
5. Calumet City	12. Lansing	19. Park Forest
6. Streamwood	13. Des Plaines	20. Mt. Prospect
7. Harvey	14. Dolton	

Most community areas and municipalities with highest numbers of unserved children during the summer are the same as those with the highest numbers during the school year. The community areas with the highest number of unserved children during the school year are clustered on the northwest, west, and southwest sides of Chicago. Many of the suburban municipalities with the highest number of unserved children border the city of Chicago, particularly the southern and western boundaries. There are also a number of municipalities with the highest number of unserved children in northern Suburban Cook County.

Balancing Highest Numbers of Unserved Children with Worst Program Coverage

Most of the areas with the highest absolute number of unserved children are *not* areas with the worst program coverage *in relation* to need. To determine geographies with the worst program coverage, a ratio analysis was conducted. The ratio analysis looked at need in relation to various program components (number of total sites; number of meals served on an average day; number of total meals served during the month; total number each of early snacks, breakfast meals, morning snacks, lunch meals, afternoon snacks, supper meals, and evening snacks served during the month; number of Saturday sites; and number of Sunday sites) and then ranked community areas and municipalities based on their relative ratios. The ratio analysis is useful for identifying program coverage *in relation to need* and serves as a level playing field for geographies of varying sizes (i.e., larger geographies do not have more weight simply by virtue of having more children in need).

There is overlap between the listings of community areas with the highest number of unserved children (as measured by number of children not served on an average day) and those with the worst program coverage (as measured by ratio rankings):

- **The Chicago community areas of Brighton Park, Gage Park, and Douglas appear on both lists for summer programs.**
- **The Chicago community areas of Brighton Park and Douglas appear on both lists for school year programs.**
- **The Suburban Cook County municipality of Oak Lawn appears on both lists for school year programs.**

This overlap indicates that program expansion efforts aimed at these areas have the greatest potential to fill nutrition program gaps and reach large numbers of children in need.

Food Insecurity Findings

Over HALF of children were food insecure.

In addition to examining program coverage and numbers of unserved children, this study also examined the nutritional lives of a sample of Cook County children. Surveys about food security and food consumption in the past 24 hours were conducted in July 2009 with 437 children ages 7 to 17 in out-of-school programs across Chicago and in some areas of Suburban Cook County.

Out-of-school programs play a critical role in the summer nutritional lives of children. Out-of-school programs meet outside of school hours at schools, parks, churches, community centers, or other places, and generally combine a mix of academic, recreational, or cultural activities for children and youth. The out-of-school programs in

this study were nutrition program sites, which means they serve federally-reimbursed meals that meet certain nutritional guidelines.

The children who participated in this study experienced extremely high rates of food insecurity:

- Overall, over half (53.9 percent) of the children were food insecure.
- 39 percent of the children were food insecure without hunger. Children experiencing food insecurity without hunger report reduced quality, variety, or desirability of diet, but little or no indication of reduced food intake.¹²
- Nearly 1 in 6 children experienced food insecurity with hunger, meaning that they report multiple indications of disrupted eating patterns and reduced food intake.¹³

The extraordinarily high levels of food insecurity among these children who are attending programs that are service delivery sites for federal nutrition programs underscores how vitally important child nutrition programs truly are in meeting a great need.

Nutritional Intake Findings

The children in this study had less than ideal nutritional intake, and certain meals were more likely than others to not be nutritious.

- In no main food group (fruits, vegetables, grains, dairy, proteins) did even half of the children meet the recommended daily allowance (RDA) established by the U.S. Department of Agriculture.
- Only 16.7 percent of children met the RDA for proteins.
- 28 percent of all children did not eat any fruit in the last 24 hours, and 46 percent did not eat any vegetables at all.
- A mere 7.8 percent of all children met the RDA for both fruits and vegetables.
- Only 0.7 percent met the RDA for all five food groups.
- After dinner snack servings were more likely than other meals to be consumed at home and to consist of junk foods, pop/other non-fruit juice drinks, and water, and less likely than other meals to consist of more nutritious foods like vegetables, fruit, and proteins.

In no main food group were even half of the children meeting the recommended daily allowance.

Additionally, many children skipped meals:

- Around 15 percent of children did not eat breakfast.
- 23 percent of children did not eat lunch.
- 15 percent of children did not eat dinner.

- All told, 45 percent of children missed a main meal in their last 24 hours.
- Snacks, whether served as part of the nutrition program or obtained in other ways from elsewhere, played a very important role in filling in the gaps for children that miss meals:
 - 14.9 percent that missed breakfast had a morning snack.
 - 60.6 percent that missed lunch had an afternoon snack.
 - 50.0 percent that missed dinner had an after dinner snack.
 - 20.5 percent that did not eat all three meals had a morning snack, 61.5 percent had an afternoon snack, and 47.2 percent had an after dinner snack.

Out-of-school programs were second only to the home as the primary food provider for children in this study. With rising poverty, eroding incomes, and rising costs of basic goods including food, increasing numbers of parents are having a difficult time feeding their children. A number of findings highlight the centrality of the out-of-school program in the nutritional lives of children:

- 61.8 percent of all lunch food servings the children consumed came from the out-of-school program, along with 31.9 percent of morning snack servings, 25.6 percent of afternoon snack servings, and 23.9 percent of breakfast servings.
- The out-of-school program served healthier food than the home: As a percent of overall food servings, foods consumed from the out-of-school programs were less likely to consist of junk foods, water, pop/other non-fruit juice drinks, and fried foods than home. On the flip side, the programs' food offerings were more likely to consist of dairy, fruit, and vegetables, than home.
- Out-of-school programs had a significant impact on fruit and vegetable consumption. While 58.1 percent of children consumed no fruit servings from home, only 32.5 percent did not consume any fruit servings from both home and their out-of-school program (65.4 and 50.3 percent for vegetables, respectively).

Out-of-school programs play a critical role in serving daytime meals, serve healthier food than the home, and have a significant impact on fruit and vegetable consumption.

With such a pronounced presence in the lives of the children they serve, improvements in the content and offering of food at these programs can truly have a profound impact on children's nutritional intake. Additionally, program expansion efforts – whether by increasing the number of sites, the capacity of existing sites, or the number of meals served – can have a significant impact on the number of children served.

Recommendations

A number of areas where child nutrition programming in Cook County can be strengthened to address child hunger surfaced through this study. Below are a series of recommendations and objectives aimed at expanding programs to areas of greatest unmet need and improving existing child-centered nutrition programs.

Recommendation 1: Expand child nutrition programs to the times of year and geographies with the least program coverage.

Objective 1a: Enroll more Summer Food Service Program and Child and Adult Care Food Program sites in areas of greatest need.

Objective 1b: Target families at food pantries, schools, after-school programs, churches, libraries, and other community institutions to share information on child-centered programming near them to increase participation, specifically focusing on increasing awareness and participation in summer programs.

Recommendation 2: Increase the amount of meals and snacks offered through nutrition programs at out-of-school programs.

Objective 2a: Expand meal and snack offerings as allowed by current program rules.

Objective 2b: Advocate for additional meal reimbursement opportunities across child nutrition programs.

Recommendation 3: Enhance the nutritional quality of the meals children are most likely to get from out-of-school programs, namely breakfast, lunch, and morning and afternoon snacks.

Objective 3a: Exceed the minimum meal nutritional requirements mandated by federal funding by providing more whole fruits, vegetables, and proteins.

Objective 3b: Launch innovative new programming, and funding to support it, that can help improve the quality of food served at child nutrition programs while at the same time strengthen communities.

Objective 3c: Advocate for higher federal meal reimbursement rates to allow for the purchase of more healthy foods, which are often more costly.

Recommendation 4: Decrease the availability and consumption of competing, less healthy foods at school and in afterschool and summer programs.

Objective 4a: Discourage on-site competing sources of food such as vending machines or candy for sale in the office, and ban outside food from being consumed at the out-of-school program.

Recommendation 5: Extend program influence into the times of day, particularly evenings, when children are least likely to eat adequate, nutritious food.

Objective 5a: Create new funding opportunities for program add-ons, like take-home after-dinner snacks.

Objective 5b: Educate children and their parents/guardians about children's nutritional needs.

These recommendations are applicable to the work of a variety of providers and advocates in the child nutrition arena including food providers like the Greater Chicago Food Depository, child-centered programs that serve meals or snacks, local and federal policymakers, and funders.

While this assessment and resulting recommendations focused specifically on child nutrition programming and children's experiences with food intake, children's food experiences cannot be disentangled from their family's ability to access and purchase high quality, nutritious food. Therefore, addressing poverty addresses food insecurity and is a key strategy in ending child hunger; any efforts to address child hunger through children's nutrition programming must be accompanied by broader efforts to increase family economic security and expand access to quality, nutritious food.

Though the current economic and policy environment may seem a challenging one in which to advocate for program expansions, the hardships faced daily by low-income families struggling to feed their children command timely attention and action. The physical, mental/emotional, and cognitive outcomes for children experiencing hunger and food insecurity underscore the importance of addressing childhood hunger to improve the life chances of children. If left unaddressed, the effects of growing child hunger will have a devastating effect on the health and development of millions of children, compromise families' ability to get ahead, and erode the stability of entire communities.



Study Overview

With its diverse programming, including child-centered programs and advocacy efforts, the Greater Chicago Food Depository (Food Depository) is working to address child hunger in its service area of Cook County, Illinois. In an effort to make informed program expansion and improvement decisions, the Greater Chicago Food Depository commissioned the Social IMPACT Research Center of Heartland Alliance to conduct a study of child nutrition program coverage and child nutrition and hunger in Cook County.

In particular, this study examines the geographic spread of existing nutrition programs serving children in light of need for food programs. Since mitigating the effects of food insecurity and hunger require not simply providing food to people in need, but increasing access to *nutritious* food, this study also examines in detail the nutritional lives of children participating in federally-funded Summer Food Service Program sites to illuminate opportunities where child nutrition programs can be strengthened. Together these analyses highlight where nutrition programs can serve more children in need and how nutrition programs can serve children better. The core research questions are as follows:

1. How does the geographic spread of economic need match up with the current landscape of food program delivery to school-age children in Cook County?
 - a. Where are the programs that serve children located?
 - b. What Chicago community areas and municipalities are least served?
2. What are the gaps in Cook County children's nutritional lives?
 - a. What do children eat in an average day?
 - b. What time during the day are children lacking food?
 - c. Where/how are children getting food?
 - d. What levels of food insecurity are experienced by children?

Answering the first research question involved determining where child nutrition programs are located and how many children each serves, comparing it to how many children are in need of such programs. This resulted in identifying geographic gaps in food program coverage in Cook County. Answering the second research question involved original data collection from children ages 7 to 17 in out-of-school programs across Cook County on their levels of food security and their food consumption in the last 24 hours.

Uncovering answers to these questions is vital to helping organizations like the Greater Chicago Food Depository make sound programmatic and expansion decisions that will best meet the nutritional and hunger needs of Cook County's most vulnerable children.



Child Hunger and Nutrition

Prevalence of Hunger

Despite America's vast wealth, child hunger, along with its numerous consequences, continues to be a persistent national issue. Millions of households in the United States struggle to consistently obtain adequate, high quality food – a situation called food

Throughout this report a variety of terms are used in reference to children's hunger. The United States Department of Agriculture tracks levels of food security in American households and while their terminology has shifted over the years, their definitions form the backbone for this study's language:

- Food security means that the child has access at all times to enough nutritious food for an active, healthy lifestyle.
- Food insecurity without hunger means that the child experiences reduced quality, variety, or desirability of diet, but with little or no indication of reduced food intake.
- Food insecure with hunger means that the child reports multiple indications of disrupted eating patterns and reduced food intake.

insecurity. In 2008, there were 17.1 million households, representing 49.1 million people, experiencing food insecurity in the United States.¹⁴ Nationally, the rate of food insecure households rose from 11.1 percent in 2007 to 14.6 percent in 2008. In Illinois, 11.1 percent of households experienced food insecurity.[†]

Children are particularly susceptible to food insecurity: 16.7 million of food insecure people are children, with a national child food insecurity rate of 22.5 percent.¹⁵ Overall, households with children have nearly twice the rate of food insecurity (21.0 percent) as those without children (11.3 percent).

Though child food insecurity affects all types of geographies and people across the nation, it disproportionately impacts certain communities:¹⁶

- Child food insecurity is most prevalent in **central cities** (28.4 percent child food insecurity rate) compared with rural (23.5 percent) or suburban areas (18.6 percent).
- **Minority children** are much more likely to live in food insecure households than white children: 16.0 percent of white, non-Latino, 33.9 percent of Latino, and 34.0 percent of black children are food insecure.
- Over half (51.5 percent) of children in **poor households** experience food insecurity, compared to only 9.8 percent of children in households with incomes at or above 185 percent of the poverty line.

[†] Though national data reflect 2008, data for 3 years, 2006-08, were combined to provide more reliable statistics at the state level.

Rising food insecurity and hunger are byproducts of rising poverty and declining incomes. Since 2000:¹⁷

- Nationally, an additional 5.2 million people are in poverty. Median household income declined by \$2,235.
- In Illinois, an additional 240,280 people are in poverty. Median household income declined by \$3,968.
- In Cook County, an additional 55,789 people are in poverty. Median household income declined by \$4,758.

Hunger and food insecurity are derivatives of poverty in that the presence of poverty means limited purchasing power, which has a direct effect on the household's ability to purchase nutritious food. The lower a household's income, the greater the presence of chronic or persistent hunger.¹⁸ This eroding economic stability, coupled with the rising price of food and other basic goods this decade, has left many struggling to feed their families.

Although poverty is often not a lifelong condition, 34 percent of children will experience poverty during at least 1 year of their lives before reaching the age of 17.¹⁹ Furthermore, about half of all children in the United States will at some point in their childhood live in a household utilizing the Supplemental Nutrition Assistance Program (formerly called food stamps).²⁰

With the current recession and the economic hardship it is inducing for many families, food insecurity levels are likely rising, and there are indications that unprecedented levels of hardship are reaching previously less affected communities. For instance, the rates of students receiving free and reduced-price lunches are quickly rising in more affluent Chicago area suburban communities.²¹ Stemming the tide of rising child hunger is critical to avoiding the numerous negative individual, familial, and community outcomes associated with hunger.

Importance of Nutrition & Access to Healthy Foods

Adequate nutritious food is critical for healthy living and for increasing food security, yet Americans' dietary intake often does not meet nutritionists' recommendations for what people should eat to maintain healthy lives. The USDA recommends that children eat an average of 1.5 servings of fruits and 2 servings of vegetables daily.²² Studies show that children generally do not meet these recommended levels; on average, children consume only half the recommended minimum number of fruit servings and just over half of vegetables.²³ The vegetables reported include fried potatoes, which make up one third of servings of vegetables consumed by adolescents.²⁴ Nutritionists recommend more leafy green or orange vegetables, and less starchy vegetables like potatoes, though most

Americans prefer fried potatoes,²⁵ and the manner of preparation (frying) takes away from the food's overall nutritious value.

Fruit and vegetable consumption is of particular importance in dietary quality since they provide key nutrients, and high rates of their consumption are associated with lower risk of chronic disease. Eating more fruits and vegetables is also associated with lower obesity rates, since they are generally higher in nutrients and lower in calories.²⁶

While many Americans in general exhibit poor nutritional eating habits, many people with low incomes have few opportunities to improve their diets. The consumption of highly nutritious food is limited by the cost of such food and by geographic access issues. For a family trying to feed its children on a tight budget, their dollar must be stretched as far as possible. Filling, high calorie foods are often less expensive and more readily available in low-income communities than highly nutritious but more expensive foods. Such foods are high in fat and sodium, and the result on the health of Americans has been devastating.

Geographic access issues have to do with the fact that many neighborhoods simply have no grocery stores from which to purchase healthy food. Studies conducted in Chicago have found that "food deserts," areas where individuals and families do not have access to grocery stores that offer healthy foods such as fresh fruits and vegetables, exist mostly on the South and West sides of the city²⁷ where there are also higher rates of low-income and minority households. Whether or not a community is considered a food desert depends on the distance one has to travel to a grocery store compared to how far they must travel to a fast food restaurant or convenience store.²⁸ Living in a community where convenience stores or fast food restaurants are more accessible than grocery stores puts community members at higher health risk. Living in a food desert has been shown to be associated with premature death and chronic health conditions.²⁹ Food deserts in Chicago affect nearly 200,000 children.³⁰

The effects of high concentrations of low-income households coupled with limited access to healthy foods in urban areas manifest in the nutritional lives of children in a variety of ways, as these studies illustrate:

- There is an observable disparity in the amount and frequency in which children living in urban, suburban, and rural areas consume food:³¹
 - 17 percent of students overall report skipping breakfast. However, 27 percent of urban children skip breakfast compared with just 8 percent of suburban children and 13 percent of rural children.
 - Of the 27 percent of urban children who skip breakfast, 14 percent report skipping lunch and 32 percent report skipping breakfast and lunch.
 - Eligibility for free or reduced-price lunch is positively correlated with skipping meals, suggesting that income is a driving force behind meal skipping.

- Nutritionists recommend diversity in the fruits and vegetables consumed to ensure a wide variety of vitamins and nutrients, but lower income groups report much less variety of fruits and vegetables in their homes than middle to higher income groups.³²

The Effects of Hunger & Poor Nutrition on Children

In the past, child hunger was often characterized by starvation and serious malnutrition, but with today's federally-established nutrition programming and other initiatives to address hunger, many of the effects of hunger on children have been tempered. Modern child hunger often manifests in less visible physical symptoms such as low weight-for-height or low height-for-age, or in negative long-term cognitive/developmental outcomes.³³

Addressing child hunger is important due to how poor nutrition, food insecurity, and hunger limit development and contribute to poor outcomes for children. Research shows that one of the most powerful predictors among the many that influence a child's physical and cognitive development is a child's level of food insecurity.^{34 35} Not having access to a variety of highly nutritious food is a key risk factor in poor physical health, mental health, developmental outcomes, and education outcomes for children.^{36 37} Longitudinal research has shown a relationship between food insecurity and children's academic performance, weight, and social development.³⁸

Physical Health and Development

The links between poverty, food insecurity and hunger, and health are not just linear in that poverty leads to hunger which leads to worse health outcomes; they are also cyclical with worse health outcomes then limiting the ability to work, generate income, escape poverty, and provide more nutritious food. In other words, poverty, hunger, and health outcomes all reinforce one another.

Compared with children in food secure households, those experiencing food insecurity are more likely to be in low-income households and also to lack health insurance. As a result, low-income school-age children are more likely to be in fair or poor health, have frequent headaches, and be iron deficient.³⁹ Even after controlling for potential mitigating factors, such as a child's housing status and parental stress associated with food security, children experiencing hunger report more chronic illnesses and have more stressful life events.⁴⁰

It is not just long-term hunger that adversely affects a child's wellbeing – even brief periods of hunger can be sufficient to produce negative health outcomes, such as delayed development and chronic illness.^{41 42} These negative health outcomes not only affect the

individual in childhood but often carry over into their adult life in the form of obesity and cardiovascular disease.⁴³

Research is beginning to illuminate the complex relationship between food insecurity and child obesity. Though a definitive picture has yet to emerge, food insecurity has been found to be associated with higher rates of young children being overweight.⁴⁴ In one longitudinal study, low income and low birth weight were associated with food insecurity and later child obesity based on Body Mass Index (BMI) measured at 4.5 years of age.⁴⁵ Though studies that utilized alternate measures of obesity (rather than BMI) have shown less of a correlation with food insecurity,⁴⁶ most research points to a little understood, though likely relationship between the two.

Cognitive Development

Food insecurity can have negative impacts on cognitive development, which has serious long-term consequences related to future educational attainment and earnings potential.⁴⁷ The physical impacts of hunger often manifest themselves socially and behaviorally, including irritability or distractibility, which can produce negative educational outcomes that significantly restrict a student's ability to achieve academically and ultimately their potential earning power.⁴⁸

The presence of hunger in a household affects whether or not a child even steps inside of a classroom—hungry children are absent and tardy twice as many days as children who are not experiencing hunger.⁴⁹ Even when a food insecure child does regularly attend classes, their educational achievement is notably lower than their food secure peers. Students from food insecure households are more likely to repeat a grade and twice as likely to be suspended from school as students from food secure households. This educational disparity is also present on test scores with food insecure students scoring lower and learning less than food secure students throughout the school year.⁵⁰

Mental Health

The continual uncertainty or intermittency of meals can result in higher levels of anxiety which compromises a child's mental health and ability to cope with stress. Food hardship is associated with behavioral problems in children⁵¹ and adjustment problems in adolescents.⁵²

It has been shown that children from households that report multiple experiences of food insecurity are more likely to develop behavior, emotional, and academic problems than children from households not experiencing food insecurity.⁵³ According to some studies, hungry children are three times more likely to develop emotional problems than those in food secure households.⁵⁴ Similarly, teacher reports indicate that students who experience hunger have more behavioral and attention problems than students who were either at-risk or not experiencing hunger.⁵⁵



Child Food and Nutrition Program Summaries

Child hunger in the United States was thrust into the national spotlight when President Obama recently set the goal of eliminating it by the year 2015.⁵⁶ The 2004 Child Nutrition and WIC Reauthorization Act, which includes many programs for children, is currently up for reauthorization, providing a timely opportunity to build upon the existing programming outlined below and improve service provision to children who may be at risk of hunger or food insecurity.

The majority of federally-funded, state-administered child nutrition programs are delivered through the institutions that children frequent, most notably schools, but also daycare centers, afterschool programs, and family childcare homes, among others. These programs, along with the Supplemental Nutrition Assistance Program (SNAP, formerly called food stamps), which provides resources to needy families to purchase food, are nutritional cornerstones for millions of low-income families with children in Illinois. The programs in Table 1 serve school-age children – the population of interest for this study – and were included in this analysis.

Table 1. Summary of Child Food and Nutrition Programs Included in this Analysis along with One Month of Cook County Data

<i>Program</i>	<i>Sites</i>	<i>Free meals and/or snacks served</i>	<i>Reduced meals and/or snacks served</i>	<i>Paid meals and/or snacks served</i>
National School Lunch Program (NSLP)	1,432	6,592,957	634,350	1,374,665
Afterschool Care Program (ACP)	381	154,670	2,379	9,359
School Breakfast Program (SBP)	1,137	2,468,632	146,552	196,975
Summer Food Service Program (SFSP)	846	1,595,753	n/a	n/a
Seamless Summer Option (SSO)	440	946,176	447	318
Child and Adult Care Food Program (CACFP)	1,065	1,320,443	119,185	296,147

NSLP, ACP, SBP, and CACFP figures reflect September 2009 data. SFSP and SSO reflect July 2009 data.

The National School Lunch Program, School Breakfast Program and Afterschool Care, Program are largely school-based programs that operate during the school year and together provide a significant defense against child hunger, serving 10 million free and reduced-price meals in September 2009 to Cook County children in need. The summer months when school is out often present a formidable challenge for families who rely on school-based food programs to help feed their children. Programs operating in the summer, like the Summer Food Service Program and the Seamless Summer Option, are critical in filling at least a portion of this need, and though their reach is limited these programs reduce what would likely be greatly heightened levels of child hunger in the summer months.

In addition to federal nutrition programs, over 200 food banks, including the Greater Chicago Food Depository, and their national parent network organization, Feeding America, are central figures in addressing hunger in the United States. At their essence,

food banks are nonprofit organizations that distribute food to local food pantries, shelters, soup kitchens, and other programs. However, most food banks are much more than simply food distribution centers. Food banks leverage federal nutrition programs in a variety of ways including provision of prepared meals to child programs, raising private dollars to implement new innovative nutrition and food programming to address child hunger, and advocating at the local, state, and federal levels for systems change that will reduce hunger.

National School Lunch Program (NSLP)

Which children are eligible for child nutrition programs?

Most federally-funded child nutrition programs utilize standard eligibility criteria. Children are eligible for the free portion of a program (they do not have to pay for their meal or snack) by being in a household that receives public assistance or has income at or below 130 percent of the poverty level. Children are eligible for reduced-price offerings (they have to pay only a portion of the cost) by being in a household living at or below 185 percent of the poverty level. Most programs also have a full pay option which is open to children of any income level so long as they contribute the full cost of the meal.

The **National School Lunch Program (NSLP)** provides the first line of defense against childhood hunger through providing low-income children with nutritious food each day at school. Established by Congress in 1946, the program was recognized as an important opportunity to improve the health and nutritional status of school-aged children.⁵⁷ School lunches that provide at least one third of the recommended daily allowance (RDA) of nutrients are served to students at schools participating in the NSLP. All public or nonprofit private schools can participate in the NSLP and receive reimbursement for all lunches served to eligible students. Schools can also choose to serve free lunches to all students and pay the difference for students ineligible for free or

reduced-price lunches (which are non-reimbursable meals). This cuts down on paperwork and administrative costs of establishing income and tracking meals and is found to be cost effective for schools serving at least 60 percent of their students free or reduced-price meals.⁵⁸

In September 2009, 1,432 Cook County schools or child care institutions were enrolled in the National School Lunch Program, the vast majority (97 percent) of them schools. Seventy-nine percent of the institutions were public entities. Ninety-eight percent of the institutions in the NSLP served free or reduced-price meals in September 2009. Together Cook County NSLP institutions served 6,592,957 free meals, 634,350 reduced-price meals, and an additional 1,374,665 paid meals in September 2009.

Afterschool Care Program (ACP)

The **Afterschool Care Program (ACP)** is part of the NSLP and provides reimbursement for snacks served at after-school activities. It has the same eligibility requirements as

NSLP.⁵⁹ In September 2009 there were 381 institutions in Cook County participating in the ACP; all but three were schools, and three quarters were public entities. Only 39 percent of institutions participating in the ACP served any free or reduced-price snacks in September 2009. Among those that did, 154,670 free snacks, 2,379 reduced-price meals, and 9,359 paid meals were served during the month.

School Breakfast Program (SBP)

The **School Breakfast Program (SBP)** provides breakfast to school children and operates similarly to the NSLP. It was established later than the NSLP, in 1966, as part of the Child Nutrition Act. School breakfasts are required to provide one fourth of the RDA of nutrients, and the SBP has lower reimbursements for breakfasts than the NSLP has for lunches. SBP also allows serving free breakfasts to all students, but this is not utilized nearly as much as the NSLP's parallel universal program.⁶⁰

Nationally, participation rates for the SBP are much lower than for NSLP. On an average day during the 2008-09 school year, 18.9 million low-income children participated in the National School Lunch Program. Of these children, 46.7 percent received free or reduced-price breakfasts.⁶¹ Illinois ranks *last* among states on the percent of children receiving lunch that also receive breakfast at school, at only 34.2 percent, and ranks 47th on the percent of schools participating in the SBP with just 71.1 percent of schools doing so. In an effort to boost participation in the program, Chicago Public Schools implemented universal breakfast for the first time in the 2009-2010 school year, offering school breakfast to all children regardless of their meal status (free, reduced, or paid) and also encouraged schools to implement breakfast in the classroom,⁶² which has been shown to significantly increase participation.

In September 2009, 1,137 institutions in Cook County were enrolled in the School Breakfast Program, representing 79 percent of institutions in the NSLP. Eighty-five percent of the SBP sites were public institutions, and 96 percent were schools. Ninety-eight percent of SBP sites served any free or reduced meals in September, and together these institutions served 2,468,632 free breakfasts, 146,552 reduced breakfasts, and 196,975 paid breakfasts that month.

Summer Food Service Program (SFSP)

Once school lets out, the **Summer Food Service Program (SFSP)** begins. This nutrition program option is for community sponsors who wish to combine feeding programs with summer activity programs. The SFSP offers reimbursement for serving meals to children at approved sites in low-income areas.⁶³ It is similar to the NSLP, but rather than only being offered in schools, meals are served by organizations anywhere children gather,

such as in parks, community programs, or housing complexes. Sites can serve two meals or one meal and one snack, and can operate as either “open sites” (any child under the age of 18 can come and receive a meal) or “enrolled sites” (only children enrolled in the program can receive a meal). Sites are eligible to serve meals if they are in low-income areas or if at least 50 percent of children are eligible for free or reduced-price lunch. While only meals served to low-income children are reimbursable in the NSLP, all SFSP meals served to children of any income are reimbursable. SFSP also has higher reimbursement rates than NSLP, so many schools opt to participate in SFSP instead of NSLP or the Seamless Summer Option (see below) during the summer months. SFSP meals also must follow USDA nutritional guidelines and include 1 serving of milk, 2 servings of fruits and/or vegetables, 1 serving of grains, and 1 serving of protein.⁶⁴

In July 2009 there were 846 SFSP sites in Cook County, and 94 percent served free and reduced meals that month. Sixty-two percent of sites were enrolled, 38 percent open to the public, and 0.8 percent a special enrollment designation. Twenty-one percent of all sites were camps, 21 percent churches, 27 percent parks, 11 percent schools, and the remainder a combination of homeless shelters, migrant sites, public housing complexes, and other sites. Eighty-four percent of sites operated all five week days, but only 18 sites had Saturday meal service and only 3 had Sunday meal service.

Among Cook County sites, lunch was the most commonly served meal in the SFSP with nearly all sites (89 percent) serving the meal (Table 2). Afternoon snacks and breakfast were the next most commonly served meals. Only 3.0 percent of all sites served supper. Eleven sites served only a morning and/or afternoon snack, meaning they did not serve breakfast, lunch, or supper meals.

Table 2. Percent of SFSP Sites Serving Each Meal

<i>Meal</i>	<i>Percent of sites serving</i>
Breakfast	36.2%
Morning snack	0.2
Lunch	89.4
Afternoon snack	40.0
Supper	3.0

There were 1,595,753 meals served through the SFSP in Cook County in July 2009. The majority of these meals were lunch meals (55.3 percent), followed by afternoon snacks (28.4 percent), and breakfast (14.6 percent). Only 1.7 percent of all meals served were supper meals, and 0.1 percent were morning snacks.

Seamless Summer Option (SSO)

The **Seamless Summer Option (SSO)** acts as an extension of the NSLP and bridges the school year and summer without disruption of food provision. Meals through this program are offered at various sites, similar to the SFSP, but unlike the SFSP must be sponsored by a school, similar to the NSLP.⁶⁵

In July 2009 there were 440 Seamless Summer Option sites in Cook County, 97 percent of which served free or reduced-price meals that month. Ninety-eight percent of these sites were open enrollment, meaning any child that shows up can receive a meal, and all but one were schools. 946,623 meals were served in July through the SSO; 65.9 percent were lunch meals, 33.9 percent breakfast, and 0.5 percent snacks.

Child and Adult Food Care Program (CACFP)

Additionally, the **Child and Adult Food Care Program (CACFP)** provides reimbursement for meals served to children in nonresidential, licensed childcare facilities, pre-K programs, family daycare homes, and eligible afterschool programs. The purpose of CACFP is to encourage organizations to provide nutritious meals to children 12 years of age and younger. CACFP sites can serve a combination of an early snack, breakfast, morning snack, lunch, afternoon snack, supper, and evening snack. Programs participating in the At-Risk After-School Snack and Supper Program of the CACFP (Illinois is one of 14 states piloting the supper program) can serve a snack and a supper to school-age children through age 18 in low-income areas during after school hours programs.

In September 2009 there were 1,065 CACFP center sites in Cook County, 60 percent of which served meals that month. Forty-seven percent of sites were nonprofits, 33 percent public entities, and 20 percent private for-profit sites. Seventy-six percent of sites were open all five week days, 11.5 percent had Saturday meal service, and 0.7 percent had Sunday meal service. During the summer, a quarter of the CACFP center sites were SFSP sites.

In September 2009, 1,469,524 meals were served through the CACFP center sites. Thirty-two percent were lunch meals, 33 percent afternoon snacks, and 27 percent breakfast meals. CACFP serves early snacks before breakfast for children who arrive very early. Only 1,527 of the total meals served (0.1 percent) were early snacks. Nearly two percent of all meals were morning snacks (between breakfast and lunch) and 8 percent were supper meals.



Methodology Overview

The core research questions for this study are as follows:

1. How does the geographic spread of economic need match up with the current landscape of food program delivery to school-age children in Cook County?
 - a. Where are the programs that serve children located?
 - b. What Chicago community areas and municipalities are least served?
2. What are the gaps in Cook County children's nutritional lives?
 - a. What do children eat in an average day?
 - b. What time during the day are children lacking food?
 - c. Where/how are children getting food?
 - d. What levels of food insecurity are experienced by children?

This study involved two phases. Phase I sought to answer research question one, and Phase II sought to answer research question two. Phase I involved the use of existing program and economic/demographic data to determine geographic gaps in food program coverage in Cook County for children ages 5 to 17, while Phase II involved original data collection from children ages 7 to 17 in out-of-school programs across Cook County. This study was approved by the Research Review Committee at Heartland Alliance for Human Needs & Human Rights and by the Research Review Committee at Chicago Public Schools, where two sample sites were located.

See Appendix A for a full description of this study's methodology.

Phase I: Unserved Children & Program Coverage

In Phase I existing data were used to uncover food program coverage in light of food need for school-age children ages 5 to 17. This phase involved gathering data on child nutrition programs to determine where they were located and how many children they serve and developing estimates of how many children could benefit from nutrition programs.

Since no data exist that directly estimate the number of children who need nutritional programming, a proxy was developed. For the purposes of this analysis, "need" was defined as eligibility for free and reduced-price school lunches through the National School Lunch Program. School children are eligible for free and reduced-price lunches if their family's income falls below 130 percent of the federal poverty line (to be eligible to receive meals for free) or 185 percent of the federal poverty line (to be eligible to receive meals at a reduced rate). The advantage of using this data as a proxy for need is that it is very current information (September 2009) and is geographically detailed (by address of the attended school). The disadvantage is that need is attributed to school census tracts,

not the children's home census tracts, though if they travel any distance to school regularly, they may presumably also travel for out-of-school programming or attend programming near school instead of home. Data were then aggregated to Chicago community areas and Suburban Cook County municipal levels.

The data on child nutrition programs in Cook County came from a data request submitted under the Freedom of Information Act to the Illinois State Board of Education. Data for following programs were requested:

In 2009, a family of four with an annual income of \$22,050 was at 100% of the federal poverty line. If their income was \$28,665 they were at 130% of the poverty line, and if their income was \$40,793 they were at 185% of the poverty line.

- National School Lunch Program, NSLP (September 2009 data)
- Afterschool Care Program, ACP (September 2009 data)
- School Breakfast Program, SBP (September 2009 data)
- Summer Food Service Program, SFSP (July 2009 data)
- Seamless Summer Option, SSO (July 2009 data)
- Child and Adult Care Food Program, CACFP (September 2009 data)

Data for the months of July and September 2009 were requested a) to reflect the summer month (July) most likely to have summer programs in full operation (many programs begin later in June and end in mid-August); and b) to reflect the most recent possible month (September) for which school year program data were available.

See pages 20-24 for more detail on these programs.

The level of need in any given community area and municipality was then matched with the number of children served by a program. This involved determining the number of children served in each program for each meal on an average day (using number of meals as a proxy for number of children) and subtracting the resulting figure from the number of children in need. Geographies were then ranked for each program on each meal type and composite rankings (an average of all individual rankings) developed for summer programs together and school year programs together, to identify areas that have the *highest number of unserved children*.

Additionally, the level of need in a community area and municipality was matched with food program coverage measures (number of total sites; number of meals served on an average day; number of total meals served during the month; total number each of early snacks, breakfast meals, morning snacks, lunch meals, afternoon snacks, supper meals, and evening snacks served during the month; number of Saturday sites; and number of Sunday sites) for each child nutrition program in each community area and municipality to develop a series of ratios. Each program included in the analysis is slightly different and so different ratios were developed for each program based on its unique offering of

meals and snacks. Importantly, two sets of composite ratios were developed, one for all programs operating in the summer and the other for all programs operating during the school year, to get a better sense of total child nutrition program coverage. Community areas and municipalities were then ranked from the least favorable ratio to the most favorable on the various aggregated program components and the average of these ratios taken to identify the areas that have the *worst overall program coverage*.

Phase II: The Nutritional Lives of Children

Phase II consisted of a quantitative research approach with survey tools administered to children in out-of-school programs. Out-of-school programs meet outside of school hours at schools, parks, churches, community centers, or other places, and generally combine a mix of academic, recreational, or cultural activities for children and youth. The out-of-school programs included in this study were Greater Chicago Food Depository (Food Depository) Kids Cafe sites and Boys and Girls Clubs of Chicago sites. These two sets of sites were chosen not to compare but rather to ensure a good mix of program sizes, geographic coverage, and more than one sponsor, but not too many so as to greatly increase the administrative burden of implementing the study.

Greater Chicago Food Depository Kids Cafes and Boys and Girls Clubs of Chicago

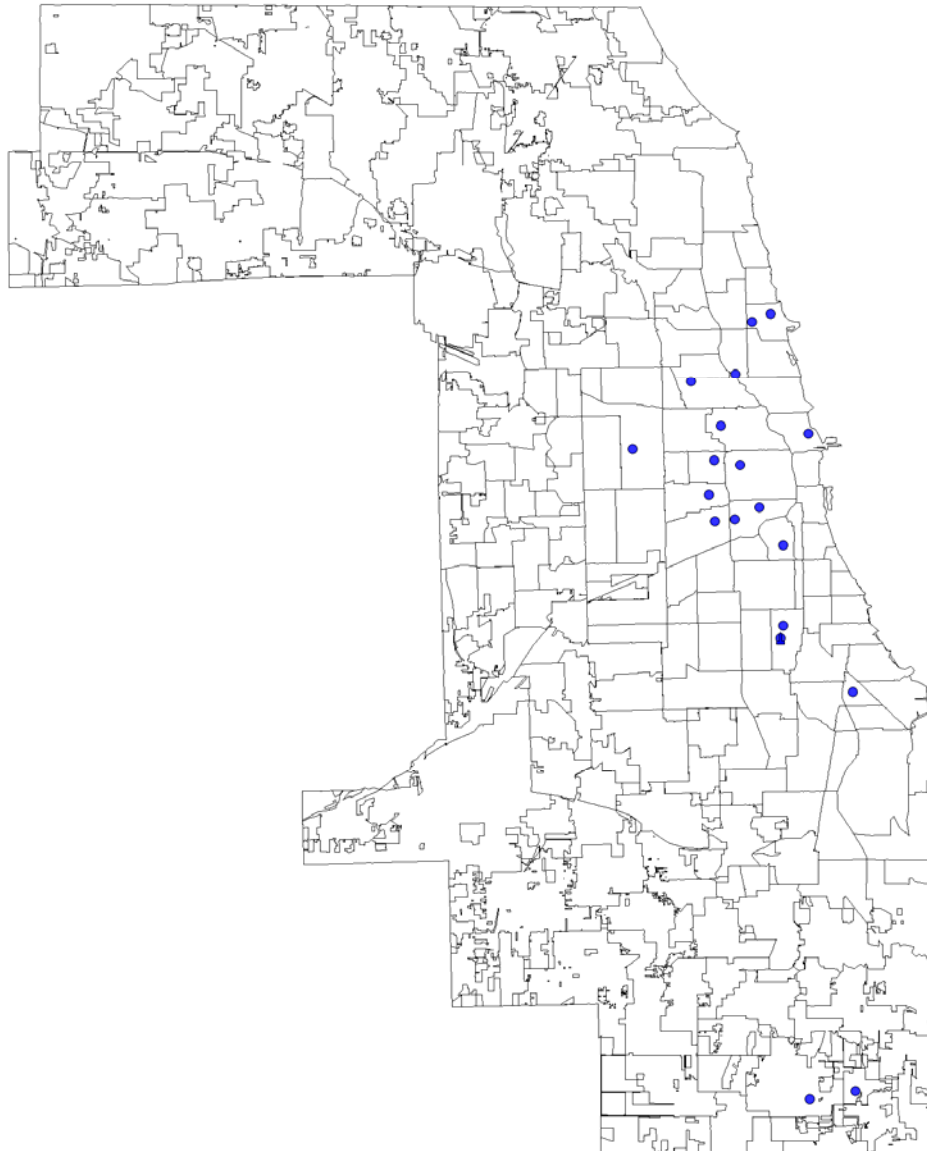
The Greater Chicago Food Depository utilizes a combination of federally-funded programs and private dollars to support its child-centered programming. Beginning in 1993, the Greater Chicago Food Depository partnered with established youth programs to provide hot meals and educational programs for children. Sites receiving Food Depository meals are called Kids Cafes, a national initiative of Feeding America. In order to become a Kids Cafe programs must meet certain criteria, including that they must: 1) be an out-of-school program managed by a 501(c)3 organization that offers children educational activities, 2) be located in an area where the nearest school has at least 50 percent of their students qualifying for free or reduced-price lunches, 3) not have participation fees that would make the site inaccessible to low-income children, and 4) incorporate a minimum of four monthly nutrition education activities.

The Food Depository offers both a hot and a cold meal option to its Kids Cafes. The hot meals are prepared by students in Chicago's Community Kitchens, the Food Depository's foodservice training program for unemployed and underemployed adults. In the 2009-2010 school year there were 55 Kids Cafe sites, serving 3,000 children, operating throughout Cook County communities and Chicago neighborhoods. There were 43 Kids Cafes in operation in the summer of 2009 serving 2,300 children on any given day.

The Boys and Girls Club of Chicago (BGCC) provides services to youth throughout Chicago. They offer after-school programming at 32 clubs centered around sports, recreation, healthy living, education, career exploration, and appreciation of the arts. They also offer full-day summer programming, where they provide meals through the SFSP. BGCC has a membership fee of \$20, and any child ages 5 to 18 can join. Across Chicago there are over 15,000 members.

Data collection occurred onsite at 19 out-of-school summer programs (Map 1). Seventeen of the 19 sample sites were in Chicago and the remaining 2 sites were in South Suburban Cook County. Thirteen sites were participating in the Food Depository's Kids Cafes program, and the remaining six were Boys and Girls Clubs of Chicago sites. All sites were participating in the USDA's Summer Food Service Program.

Map 1. Nineteen Sample Sites Throughout Cook County, Illinois



The convenience sample of children ages 7 to 17 came from the 19 study sample sites. All children attending the sample site out-of-school programs were sent home with a study flyer and consent form, which they were asked to share with their parents and return. Children for whom a signed consent form was returned then became eligible for

inclusion in the study, but did not become enrolled in the study until their assent was obtained.

Two data collection instruments were used to measure children's food intake and food insecurity/hunger: the 24-Hour Food Recall and the Child Food Security Survey Module. The survey instruments for the 7 to 12 year olds were administered by a field worker in a 15 to 20 minute one-on-one structured interview. The 13 to 17 year olds were given the option of working one-on-one with a field worker or self-administering the instruments in a group of three guided by a field worker.

- The 24-Hour Food Recall involved children self-reporting food consumption for the prior 24-hour period. For each food item a child consumed in the last 24 hours, they were also asked to recall the characteristics of that food (e.g., what they put on it, whether it was fresh or canned, if it was wheat or white bread, etc.), what time of day the food was consumed, where they got the food (e.g., home, out-of-school program, the corner store), and how much of the food they consumed.
- The Child Food Security Survey Module (CFSSM) was developed by Connell, Nord, Lofton, and Yadrick (2004), and is derived from the U.S. Department of Agriculture's household Food Security Survey Module. The CFSSM is a nine question instrument with three response choices for each item that asks children to consider their food experiences in the last month. For instance, a question asks, "In the last month, did the food that your family bought **run out** and you didn't have money to get more?" Children that respond with one of the two affirmative response choices (A lot or Sometimes) to any given statement on the CFSSM are given a point for that question, while the negative response category (Never) gets no point, for a total of 9 possible points. Children who score 0 to 1 are considered food secure. A score of 2 to 5 is considered food insecure without hunger and a score of 6 to 9 is considered food insecure with hunger.

For additional detail on these tools, including a summary of research on children's ability to recall and complete these instruments, see Appendix A.

A Snapshot of Cook County, Illinois

Cook County is the second largest county in the United States behind Los Angeles County and contains the third largest city in the nation, Chicago. Cook County is home to nearly 5.3 million residents, representing 43 percent of state of Illinois' population. Fifty-four percent of those 5.3 million residents live in Chicago, and the rest reside in Cook County's other 130 municipalities.⁶⁶

Table 3. Cook County Demographic and Economic Indicators

	Cook County as a whole	City of Chicago	Suburban Cook County
Race as a percent of total population⁶⁷			
White	44.6%	31.3%	58.8%
Black	24.9%	34.2%	15.0%
Latino	23.2%	28.1%	18.0%
Age⁶⁸			
Young children (0-4)	382,750	206,608	176,142
School-age children (5 to 17)	930,783	454,110	476,673
Working age adults (18 to 64)	3,356,466	1,789,856	1,566,610
Seniors (65 and over)	624,665	290,881	333,784
Poverty rates (percents of FPL)⁶⁹			
Poverty (0-99% FPL)	14.8%	20.6%	8.5%
Extreme poverty (0-50% FPL)	6.6%	9.3%	3.7%
Low income (100-199% FPL)	17.6%	20.7%	14.4%
Child poverty (0-99% FPL for related children)	21.1%	28.1%	8.1%
Median household income⁷⁰			
2008	\$54,582	\$46,911	**
Change since 1999 (in real dollars)	-\$4,758	-\$3,000	**
Unemployment, November 2009⁷¹	10.7%	11.4%	10.0%
Annual income needed to make ends meet without assistance			
1 adult, 1 preschooler, 1 school-age child	\$53,364	\$52,387	\$54,506
2 adults, 1 preschooler, 1 school-age child, 1 teenager	\$63,304	\$62,109	\$64,700

*Poverty is defined by the federal government using an income threshold, also called the federal poverty level or FPL, which varies by family size. A family of three is considered poor if their annual income is below \$18,310, and a family of four is considered poor with an annual income below \$22,050. Various levels of poverty are often measured in terms of percents of the FPL.

**Data not available for Suburban Cook County.

Both recent and long-term changes have led to increased economic insecurity in Cook County:

- In 1990, 20.4 percent of Illinois workers were employed in high-paying manufacturing jobs. By 2008, only 13.1 percent were employed in manufacturing. In contrast, lower-paying service-providing jobs in education and health, leisure and hospitality, and other services have grown, employing 30.9 percent of the state workforce in 2008, up from 25.3 percent in 1990.⁷² In the Chicago region, over half a million people work in service occupations, with an average wage of only \$10.75 an hour.⁷³
- Suburban Cook County's poverty rate has increased over 80 percent since 1980 – much greater than Chicago's increase of 1.6 percent.⁷⁴
- The number of people who are poor has risen by over 99 percent in Suburban Cook County since 1980; however, the number of people who are poor rose by only 7.5 percent in Chicago during the same time period.⁷⁵
- Poverty in Suburban Cook County increased over 10 times the rate of overall population growth since 1980.⁷⁶



Findings: Unserved Children & Program Coverage

This analysis focuses on how well the geographic spread of various child nutrition programs matches the need throughout Chicago community areas and suburban Cook County municipalities. The city of Chicago is not included in municipality listings and discussions. All meals and snacks references in this section apply to federally-reimbursable meals and snacks served through child nutrition programs. The analysis reveals the Chicago community areas and Suburban Cook County municipalities with the highest number of unserved children and worst program coverage for both the summer and the school year, highlighting areas where program investments should be made.

Key Findings on Unserved Children & Program Coverage

Nutrition programs provide a critical line of defense against child hunger, but at their current scale they fall far short of meeting the need among Cook County children. Table 4 displays cumulative program coverage ratios for summer programs and school year programs. The ratios indicate how many meals of each type were served in a month for every one child in need. For instance, taken together all summer child nutrition programs in Chicago community areas served only 4.50 lunches *in the entire month of July* for every 1 child in need, despite there being 31 days (21 week days) during which lunch could be served.

Table 4. Ratio of Children in Need to Meals Served in One Month (July 2009 for Summer Programs and September 2009 for School Year Programs)

	Chicago community areas ratios, 1 to	Suburban municipalities ratios, 1 to	School year program meals	Chicago community areas ratios, 1 to	Suburban municipalities ratio, 1 to
Summer programs meals					
Early snack	0.00	0.01	Early snack	0.00	0.01
Breakfast	1.87	1.16	Breakfast	5.82	5.52
Morning snack	0.04	0.09	Morning snack	0.04	0.09
Lunch	4.50	1.94	Lunch	13.90	16.48
Afternoon snack	1.98	1.28	Afternoon snack	1.20	1.26
Supper	0.17	0.08	Supper	0.22	0.10
Evening snack	0.00	0.01	Evening snack	0.00	0.01
Total All Meals Combined	8.58	5.13	Total All Meals Combined	21.18	23.47
Meals Served on an Average Day	0.47	0.30	Meals Served on an Average Day	1.23	1.14

Due to a limited number of sites serving them, certain meals, such as snacks, barely make a dent in meeting the need. And no single meal, not even lunch during the school year which is bolstered by the presence of the National School Lunch Program, served the ideal 21 meals (one on every weekday) for every one child in need.

When compared to school year program coverage, summer program coverage stacks up poorly, as measured by these ratios. When school lets out for the summer, the school

meals that hundreds of thousands of Cook County children rely on end leaving many families struggling to fill this nutrition void. There are simply not enough summer program sites (and/or enough capacity at those sites) to fill even half the gap left when school year programs end.

During the school year there was one nutrition program site for every 144 children in need in Chicago community areas and 1 site to every 107 in need in Suburban Cook County municipalities (Table 5). The number of sites drops dramatically in the summer to 1 site for every 251 children in need in Chicago and 1 site to every 327 children in need in Suburban Cook County. Child nutrition programs rarely operate on Saturdays and Sundays during the school year or the summer, which leaves a gaping hole in the nutritional lives of many children. Weekend sites could have particular importance in the summer, with the absence of school meals and the shortage of summer programs in general to fill the resulting gap.

Table 5. Ratio of Nutrition Program Sites to Children in Need in One Month (July 2009 for Summer Programs and September 2009 for School Year Programs)

<i>Summer programs meals</i>	<i>Chicago community areas ratios, 1 to</i>	<i>Suburban municipalities ratios, 1 to</i>	<i>School year program meals</i>	<i>Chicago community areas ratios, 1 to</i>	<i>Suburban municipalities ratio, 1 to</i>
All Sites	251.42	327.22	All Sites	144.41	106.68
Saturday Sites	7,686.69	5,768.81	Saturday Sites	3,653.08	7,079.91
Sunday Sites	52,708.71	38,939.50	Sunday Sites	73,792.20	77,879.00

The subsequent key findings and detailed analysis that follow later in this section highlight Chicago community areas and Suburban Cook County municipalities with the highest number of children in need *not* served on an average day by nutrition programs and also the areas with worst program coverage as measured by a cumulative ratio analysis of program components. While program investments in the highlighted areas are of critical importance in terms of filling the *worst* gap in coverage, program expansion efforts are needed – year round, but particularly during in the summer – in nearly every one of Chicago’s 77 community areas and every one of the 106 Suburban Cook County municipalities included in this analysis.

Summer Program Coverage

Across all programs operating in the summer throughout Cook County, lunch reached the greatest number of children in need. Breakfast was served only half as much as lunch. Outside school hours, supper had the most limited reach: for every 1 child in need, only 0.15 meals were served in the entire month. Afternoon snacks reached slightly more children with 1.77 afternoon snacks served during the month for every 1 child in need. Early and late snacks (before breakfast and after dinner) were very uncommon with only one program, the Child and Adult Care Food Program, including these offerings. The low ratio of snacks to children in need is most likely a result of program regulations that

restrict reimbursement to two meals per day, thus deterring sites from providing more comprehensive meal/snack service.

Only one of Chicago's 77 official community areas, O'Hare, had no summer program sites at all. Eighteen Suburban Cook County municipalities with children in need had no summer program sites at all.

Of the areas that did have nutrition programs operating in the summer, the following Chicago community areas and Suburban Cook County municipalities had the highest number of unserved children on an average day during the summer. Bolded geographies indicate that the community area or municipality also appears on the list of areas with the highest number of unserved children during the school year.

Chicago Community Areas With the Highest Number of Unserved Children During the Summer

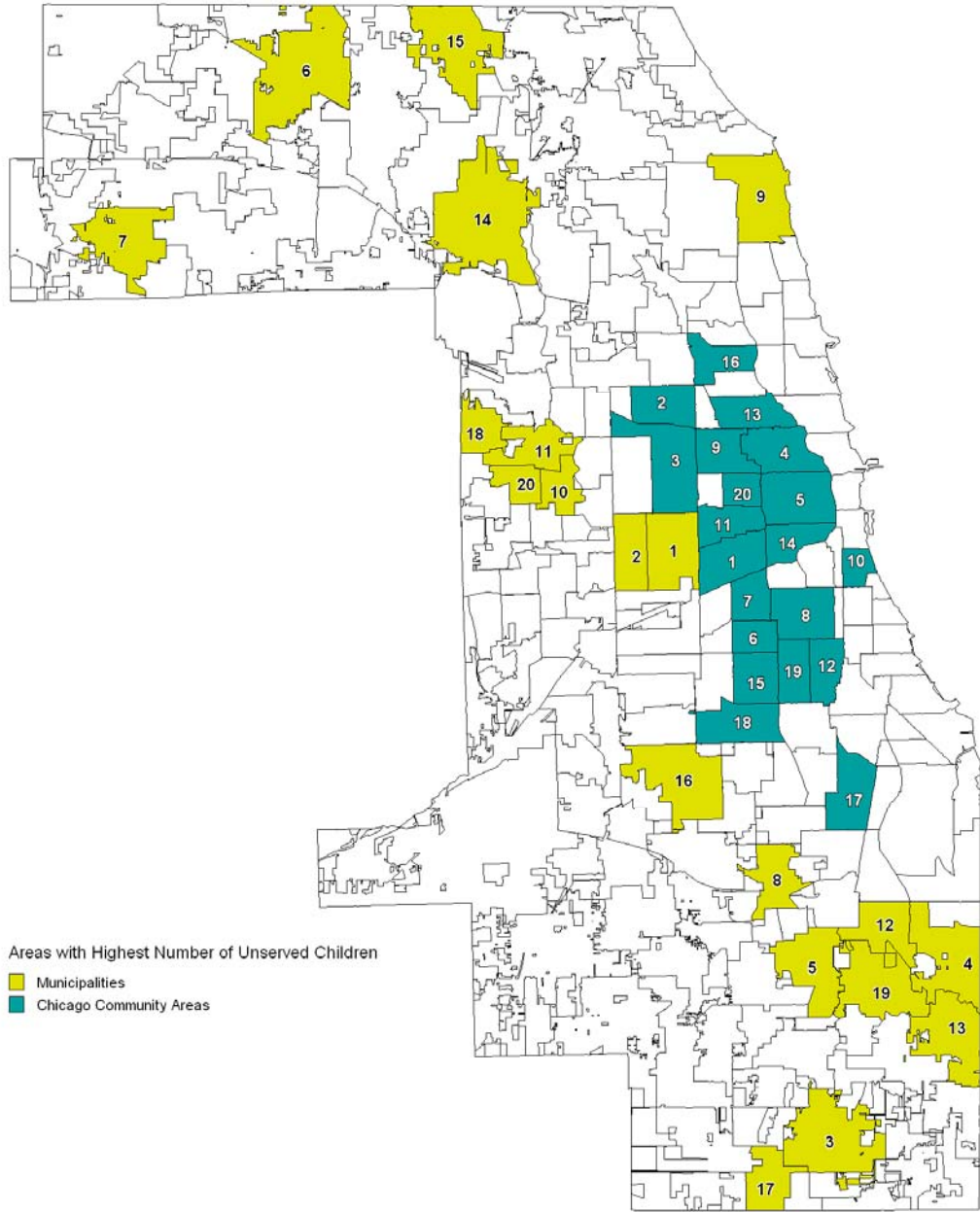
- | | | |
|--------------------------|----------------------------|-------------------------|
| 1. South Lawndale | 8. New City | 15. Chicago Lawn |
| 2. Belmont Cragin | 9. Humboldt Park | 16. Irving Park |
| 3. Austin | 10. Douglas | 17. Roseland |
| 4. West Town | 11. North Lawndale | 18. Ashburn |
| 5. Near West Side | 12. Englewood | 19. West Englewood |
| 6. Gage Park | 13. Logan Square | 20. East Garfield Park |
| 7. Brighton Park | 14. Lower West Side | |

Suburban Cook County Municipalities With the Highest Number of Unserved Children During the Summer

- | | | |
|---------------------------|-------------------------|--------------------------|
| 1. Cicero | 8. Blue Island | 15. Wheeling |
| 2. Berwyn | 9. Evanston | 16. Oak Lawn |
| 3. Chicago Heights | 10. Maywood | 17. Park Forest |
| 4. Calumet City | 11. Melrose Park | 18. Northlake |
| 5. Harvey | 12. Dolton | 19. South Holland |
| 6. Palatine | 13. Lansing | 20. Bellwood |
| 7. Streamwood | 14. Des Plaines | |

The community areas and municipalities with the highest number of unserved children in the summer are clustered in certain regions of the city and county (Map 2). The community areas with the highest number of unserved children are clustered on the northwest, west, and southwest sides of Chicago. Many of the suburban municipalities with the highest number of unserved children border the city of Chicago, particularly the southern and western boundaries. There are also a number of municipalities with the highest number of unserved children in north Suburban Cook County.

Map 2. Community Areas and Suburban Cook County Municipalities With the Highest Number of Unserved Children During the Summer



School Year Program Coverage

Cook County children are better served by nutrition programs during the school year than over the summer, due largely to the far-reaching nature of school lunches and to a lesser extent school breakfasts (Illinois ranks last among all states in school breakfast participation).⁷⁷ Overall, there was 1 school year site for every 130.69 Cook County

children in need. On an average day, school year programs together served 1.21 meals for every child in need.

Across all programs operating during the school year, lunch reached the greatest number of Cook County children in need: for every 1 child in need, 14.66 meals were served during the month. Breakfast was served only 40 percent as much as lunch. Supper had the most limited reach, with only 0.19 meals served in the entire month for every 1 child in need. Morning snacks were even more limited than supper at 0.05 for every 1 child in need. Afternoon snacks reached slightly more children with 1.22 afternoon snacks served during the month for every 1 child in need. Early and late snacks (before breakfast and after dinner) were as uncommon during the school year as they are during the summer.

A number of community areas and municipalities did not have any afternoon or supper meal offerings during the school year and those that do have limited reach. Afternoon snacks and supper meals are two meal categories ripe for program investments during the school year.

Despite having better coverage than summer programs, there are still geographies, listed below, that have high numbers of unserved children and that would benefit from investments in school year child nutrition programming. Bolded geographies indicate that the municipality or community area also appears on the list of areas with the highest number of unserved children during the summer.

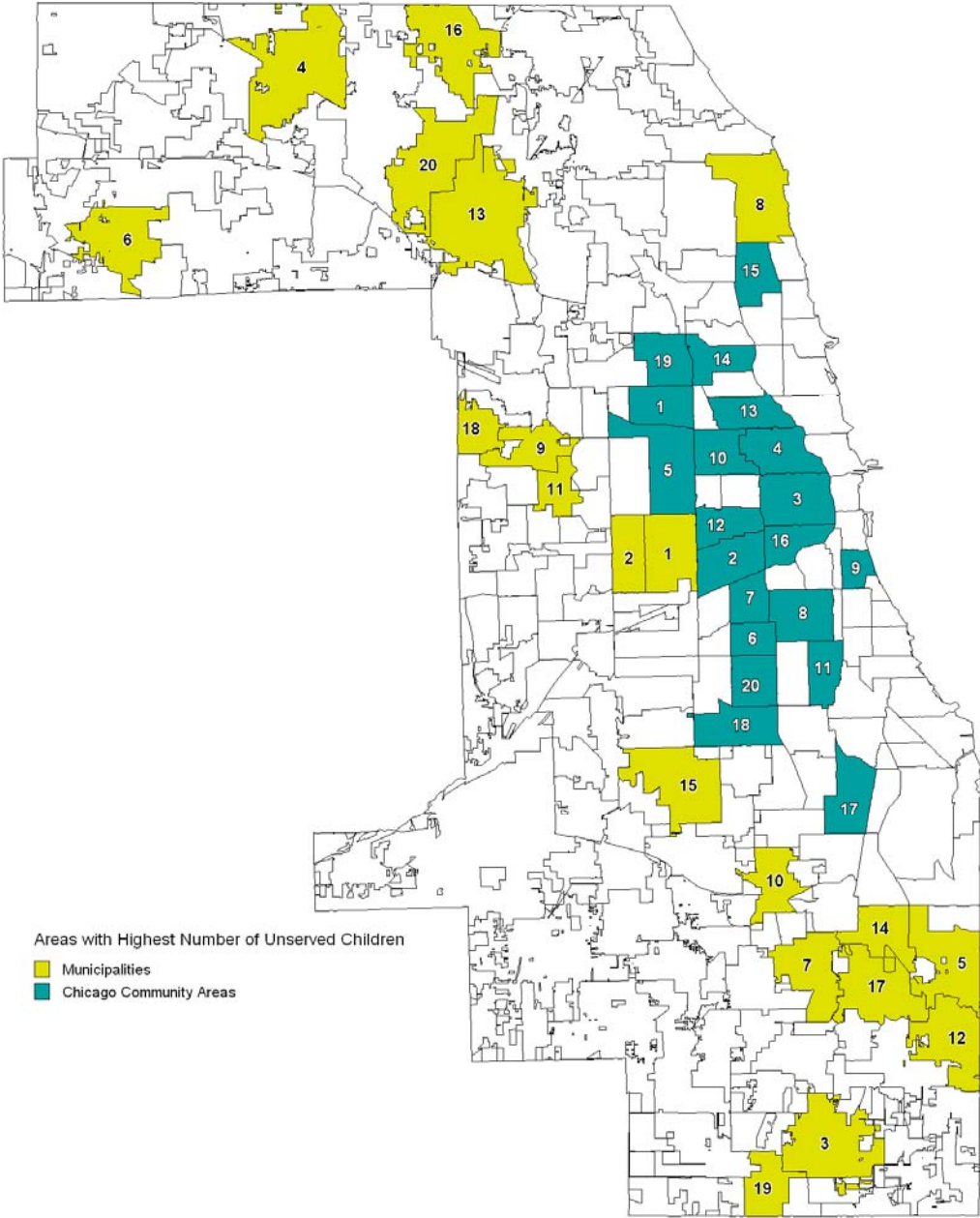
Chicago Community Areas With the Highest Number of Unserved Children During the School Year

- | | | |
|--------------------------|---------------------------|----------------------------|
| 1. Belmont Cragin | 8. New City | 15. West Ridge |
| 2. South Lawndale | 9. Douglas | 16. Lower West Side |
| 3. Near West Side | 10. Humboldt Park | 17. Roseland |
| 4. West Town | 11. Englewood | 18. Ashburn |
| 5. Austin | 12. North Lawndale | 19. Portage Park |
| 6. Gage Park | 13. Logan Square | 20. Chicago Lawn |
| 7. Brighton Park | 14. Irving Park | |

Suburban Cook County Municipalities With the Highest Number of Unserved Children During the School Year

- | | | |
|---------------------------|------------------------|--------------------------|
| 1. Cicero | 8. Evanston | 15. Oak Lawn |
| 2. Berwyn | 9. Melrose Park | 16. Wheeling |
| 3. Chicago Heights | 10. Blue Island | 17. South Holland |
| 4. Palatine | 11. Maywood | 18. Northlake |
| 5. Calumet City | 12. Lansing | 19. Park Forest |
| 6. Streamwood | 13. Des Plaines | 20. Mt. Prospect |
| 7. Harvey | 14. Dolton | |

Map 3. Community Areas and Suburban Cook County Municipalities with the Highest Number of Unserved Children in the School Year



Most places with the highest numbers of unserved children during the summer are the same as those with the highest numbers during the school year. The community areas with the highest number of unserved children during the school year are clustered on the northwest, west, and southwest sides of Chicago (Map 3). Many of the suburban municipalities with the highest number of unserved children border the city of Chicago, particularly the southern and western boundaries. There are also a number of

municipalities with the highest number of unserved children in north Suburban Cook County.

Balancing Highest Numbers of Unserved Children with Worst Program Coverage

Most of the areas with the highest absolute number of unserved children are *not* areas with the worst program coverage *in relation* to need. To determine geographies with the worst program coverage, a ratio analysis was conducted. The ratio analysis looked at need in relation to various program components (number of total sites; number of meals served on an average day; number of total meals served during the month; total number each of early snacks, breakfast meals, morning snacks, lunch meals, afternoon snacks, supper meals, and evening snacks served during the month; number of Saturday sites; and number of Sunday sites) and then ranked community areas and municipalities based on their relative ratios. The ratio analysis is useful for identifying program coverage *in relation to need* and serves as a level playing field for geographies of varying sizes (i.e., larger geographies do not have more weight simply by virtue of having more children in need).

There is overlap between the listings of community areas with the highest number of unserved children (as measured by number of children not served on an average day) and those with the worst program coverage (as measured by ratio rankings):

- **The Chicago community areas of Brighton Park, Gage Park, and Douglas appear on both lists for summer programs.**
- **The Chicago community areas of Brighton Park and Douglas appear on both lists for school year programs.**
- **The Suburban Cook County municipality of Oak Lawn appears on both lists for school year programs.**

This overlap indicates that program expansion efforts aimed at these areas have the greatest potential to fill nutrition program gaps and reach large numbers of children in need.

Considerations Related to Program Coverage & Unserved Children Findings

Since no data exist that directly estimate the number of children who need nutritional programming, a proxy was developed for the purposes of this analysis. The disadvantage of the metric used – eligibility for free and reduced-price school lunches – is that need is attributed to school census tracts, not the children’s home census tracts. The extent to which this distorts the geographic spread of need is not known. However, this disadvantage outweighs the limitations of using more geographically-precise data; that data set is 10 years old.

To determine the highest number of unserved children in terms of children not being served on an average day, meals were used as a proxy for children. This has the potential to overstate how many children were served since many programs serve second helpings.

This analysis includes only Child and Adult Care Food Program sites designated as facilities (centers), because data for the daycare homes are not available by site location. Since need for this analysis is defined as *school-age* children eligible for free and reduced-price lunches and because the CACFP sites likely serve younger children, excluding the daycare homes portion of the program likely only slightly understates program coverage for school-age children. This probable slight understatement is likely offset by the fact that sites that are included (centers) likely overstate program coverage for the same reason – many of them serve children who are not yet school age.

Additionally, CACFP data reflected September 2009, but since the program also operates in the summer months, all non-SFSP and non-SSO sites were included in the “Summer Programs” cumulative analysis to present the fullest picture possible of summer program coverage. The result of this is that much of the same data for the CACFP were used in the summer and school year analysis, which likely dilutes any differences found between the two.

There are also unknown and uncontrollable data integrity issues with the data sets received from state agencies for this portion of the analysis. Data were cleaned and logical corrections made to the greatest extent possible.

Need Defined & Analysis Notes

For the purposes of this study, “need” was defined as eligibility for free and reduced-price school lunches through the National School Lunch Program. School children are eligible for free and reduced-price lunches if their family’s income falls below 130 percent of the federal poverty line (to be eligible to receive meals for free) or 185 percent of the federal poverty line (to be eligible to receive meals at a reduced rate). In September 2009, 465,606 Cook County children were eligible for free lunches and 59,113 eligible for the reduced-price meals. See Appendix A for more detail on how need was defined and for tables that list the number of children in need for each Chicago community area and municipality included in this analysis.

The level of need in any given community area and municipality was then matched with the number of children served by a program. This involved determining the number of children served in each program for each meal on an average day (using number of meals as a proxy for number of children) and subtracting the resulting figure from the number of children in need. Geographies were then ranked for each program on each meal type

and composite rankings (an average of all individual rankings) developed for summer programs together and school year programs together, to identify areas that have the *highest number of unserved children*.

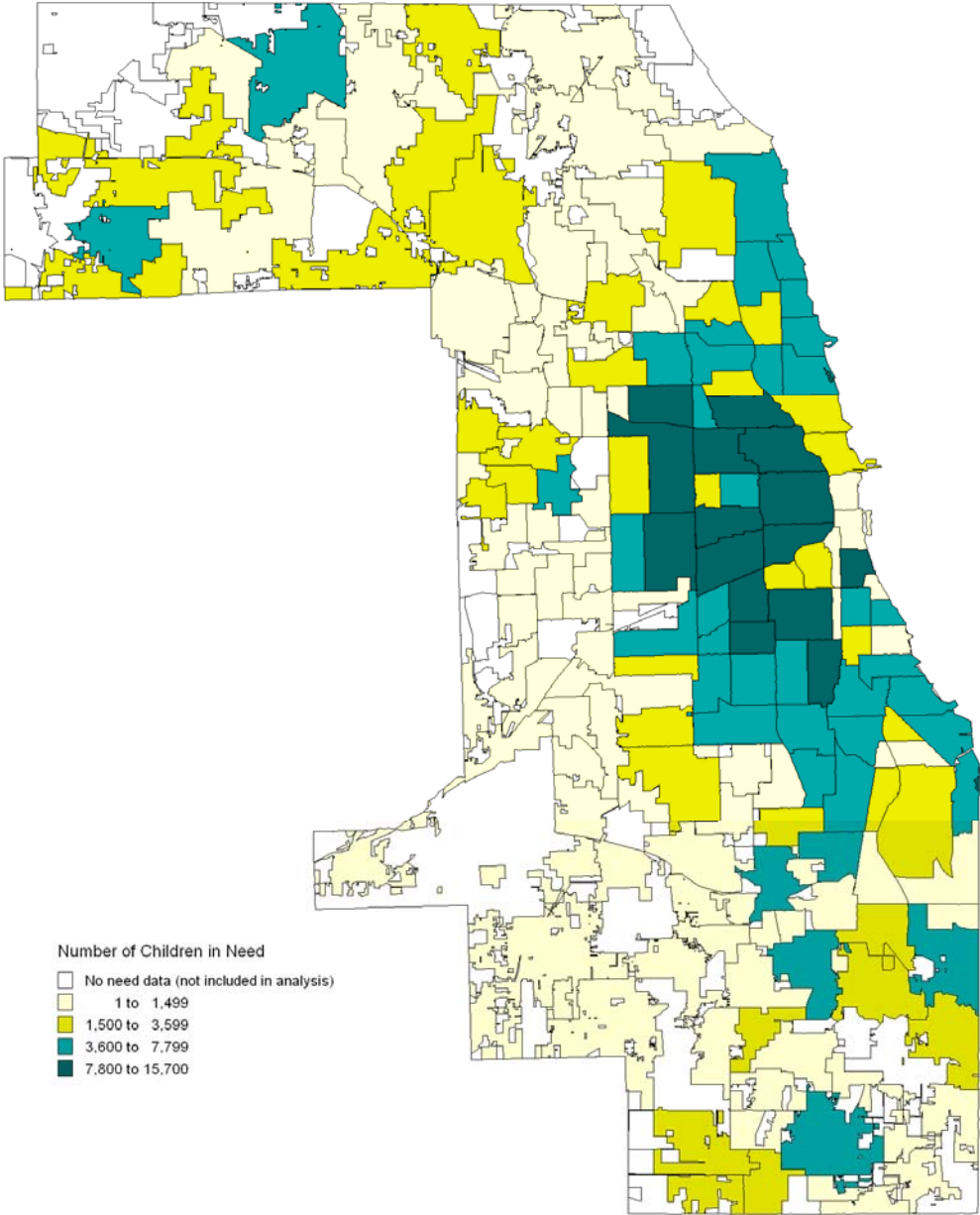
Additionally, the level of need in a community area and municipality was matched with food program coverage measures (number of total sites; number of meals served on an average day; number of total meals served during the month; total number each of early snacks, breakfast meals, morning snacks, lunch meals, afternoon snacks, supper meals, and evening snacks served during the month; number of Saturday sites; and number of Sunday sites) for each child nutrition program in each community area and municipality to develop a series of ratios. Each program included in the analysis is slightly different and so different ratios were developed for each program based on its unique offering of meals and snacks. Importantly, two sets of composite ratios were developed, one for all programs operating in the summer and the other for all programs operating during the school year, to get a better sense of total child nutrition program coverage. Community areas and municipalities were then ranked from the least favorable ratio to the most favorable on the various aggregated program components and the average of these ratios taken to identify the areas that have the *worst overall program coverage*.

Some municipalities had no need and no program data and so were left out of the analyses. There were three municipalities – East Hazel Crest, University Park, and Worth – that had CACFP sites but did not file for free and reduced-price school lunches, so no children met the established definition of need.[‡] Program data from these three municipalities are included in aggregate numbers of sites and meals, but these three municipalities are excluded from rankings and discussions of municipalities with and without sites and various meals.

Eleven Suburban Cook County municipalities, the bottom 10 percent, had 80 or fewer children in need. These municipalities are also excluded from discussion of number of municipalities with and without sites and various meals since program expansions are more likely to occur in areas with higher numbers of children in need.

[‡] Municipalities that had no need data do not necessarily have no children in families with incomes below 185 percent of the poverty level. Some schools and districts choose not to participate in the National School Lunch Program and so no data on this measure are reported.

Map 4. Number of School-Age Children in Need of Child Nutrition Programs by Chicago Community Area and Suburban Cook County Municipality



Summer Child Nutrition Programs

Three programs in this analysis operate during the summer: the Summer Food Service Program (SFSP) and the Seamless Summer Option (SSO) operate exclusively in the summer, and the Child and Adult Care Food Program (CACFP) operates year round. The CACFP data obtained for this analysis reflect September 2009, but since the program also operates in the summer months, all CACFP sites that do not change to SFSP or SSO

sites in the summer (some do to get a higher meal reimbursement rate) are included in this aggregate analysis to present the fullest picture possible of unserved children.

Chicago Community Areas

Summary: Community Areas With Highest Number of Unserved Children and Worst Program Coverage

Only one of Chicago’s 77 official community areas, O’Hare, had no summer program sites at all.

Highest Number of Unserved Children

The community areas in Table 6 have the highest numbers of unserved children when all the various meal offerings are taken into consideration. Program investments in these community areas have the potential to reach large numbers of children in need who are not currently served by a nutrition program. The community areas with the highest number of unserved children are clustered on the northwest, west, and southwest sides of Chicago.

Table 6. Chicago Community Areas With Highest Number of Unserved Children; Summer Programs

Community area	Community area
1. South Lawndale	11. North Lawndale
2. Belmont Cragin	12. Englewood
3. Austin	13. Logan Square
4. West Town	14. Lower West Side
5. Near West Side	15. Chicago Lawn
6. Gage Park	16. Irving Park
7. Brighton Park	17. Roseland
8. New City	18. Ashburn
9. Humboldt Park	19. West Englewood
10. Douglas	20. East Garfield Park

Bolded community areas appear on both the list of areas with the highest number of unserved children and those with worst program coverage.

Worst Program Coverage

The community areas in Table 7 had the highest averaged rank across all the program component ratios and can therefore be identified as the community areas with the worst program coverage in relation to need. These community areas are mostly clustered in the far north/northwest of Chicago as well as on the southwest side.

Table 7. Chicago Community Areas With Worst Overall (Averaged) Rank on Ratios for Summer Programs

Community area	Community area
1. O’Hare*	11. East Side
2. Brighton Park	12. Burnside
3. Gage Park	13. Jefferson Park
4. West Elsdon	14. Douglas
5. West Lawn	15. Hermosa
6. Albany Park	16. Norwood Park
7. Avondale	17. Dunning
8. Montclare	18. Edgewater
9. Archer Heights	19. Lincoln Square
10. Lake View	20. Mount Greenwood

*O’Hare ranked poorly due to having no child nutrition programs operating in the summer. Bolded community areas appear on both the list of areas with the highest number of unserved children and those with worst program coverage.

Community Areas on Both Lists

Brighton Park, Gage Park, and Douglas appear on both the listing of community areas with the highest number of unserved children *and* the worst summer program ratio ranking. This overlap indicates

that program expansion efforts aimed at these community areas have the greatest potential to fill nutrition program gaps and reach large numbers of children in need.

Meals: Early Snack, Breakfast, Morning Snack, Lunch, Afternoon Snack, Supper, and Evening Snack

No community areas had summer sites that served early snacks (before breakfast).

Across all Chicago community areas, for every 1 child in need there were only 1.87 breakfast meals

Table 8. Chicago Community Areas with Highest Number of Unserved Children at Breakfast; Summer Programs

<i>Community area</i>	<i>Unserved children</i>	<i>Community area</i>	<i>Unserved children</i>
1. South Lawndale	14,432	11. North Lawndale	7,753
2. Belmont Cragin	13,520	12. Englewood	7,609
3. Austin	10,897	13. Logan Square	7,559
4. West Town	10,513	14. Lower West Side	7,335
5. Near West Side	10,292	15. Irving Park	7,016
6. Gage Park	9,780	16. Chicago Lawn	6,776
7. Brighton Park	9,410	17. Roseland	6,690
8. New City	8,932	18. West Ridge	6,515
9. Humboldt Park	8,817	19. Portage Park	6,344
10. Douglas	8,065	20. Ashburn	6,286

served during the *entire month* in summer programs. Five community areas with summer sites did not serve any breakfast meals at all. These community areas are Edison Park (119 children in need), Forest Glen (282), Jefferson Park (1,043), Montclare (1,196), and Mount Greenwood (732). Among those that did, the 20 community areas with the highest number of unserved children at breakfast are listed in Table 8.

Sixty-one of the 76 community areas with summer sites did not have any morning snacks served. Afternoon snacks were far more likely to be served with afternoon snacks served in all

Table 9. Chicago Community Areas with Highest Number of Unserved Children at Afternoon Snack; Summer Programs

<i>Community area</i>	<i>Unserved children</i>	<i>Community area</i>	<i>Unserved children</i>
1. South Lawndale	14,843	11. Englewood	8,098
2. Belmont Cragin	13,635	12. North Lawndale	7,602
3. Austin	11,264	13. Logan Square	7,487
4. West Town	10,697	14. Lower West Side	7,327
5. Near West Side	10,565	15. Chicago Lawn	7,197
6. Brighton Park	9,776	16. Irving Park	6,895
7. Gage Park	9,762	17. Roseland	6,888
8. New City	9,432	18. East Garfield Park	6,549
9. Humboldt Park	9,106	19. West Englewood	6,307
10. Douglas	8,147	20. Portage Park	6,163

community areas besides O’Hare. Across all Chicago community areas, for every 1 child in need there was a total of 1.98 afternoon snacks served during the month in summer programs. The community areas with the highest number of unserved children at afternoon snack are displayed in Table 9.

Across all Chicago community areas, for every 1 child in need there were a total of 4.50 lunch meals served during the month in summer programs. Only Edison Park, with 119 children in need, did not have

Table 10. Chicago Community Areas with Highest Number of Unserved Children at Lunch; Summer Programs

<i>Community area</i>	<i>Unserved children</i>	<i>Community area</i>	<i>Unserved children</i>
1. South Lawndale	12,140	11. Englewood	6,463
2. Belmont Cragin	12,044	12. Logan Square	6,410
3. West Town	8,886	13. Lower West Side	6,351
4. Gage Park	8,774	14. North Lawndale	6,296
5. Brighton Park	8,768	15. Irving Park	6,239
6. Near West Side	8,661	16. Chicago Lawn	5,721
7. Austin	8,455	17. Albany Park	5,357
8. New City	7,595	18. East Garfield Park	5,292
9. Douglas	7,385	19. Ashburn	5,265
10. Humboldt Park	7,271	20. West Ridge	5,181

any lunch meals served. Among those that did have lunch meals served, the 20 communities with the highest number of unserved children at lunch are in Table 10.

Supper meal service was less common than breakfast or lunch service; half of community areas with summer sites did not have any supper meals served during the month in summer programs. Among the 38 that did, more supper meals were served through the CACFP than through the SFSP.

Only 2 community areas with summer programs had any evening snacks served. The CACFP is the only program with evening snack service. In these two community areas, Englewood and East Side, the average ratio of children in need to total evening snacks served during the month was 1 to 0.15, meaning that for every child in need, only 0.15 evening snacks were served in the entire month.

Saturday and Sunday Sites

Forty-nine community areas did not have any Saturday-operating summer sites and 71 did not have any Sunday-operating summer sites. The reach of those that did operate on weekends is limited. Among Saturday-operating sites, the average ratio of sites to children in need was 1 to 4,643, meaning that for every Saturday site, there were 4,643 children in need. For Sunday sites, the ratio was even worse at 1 to 6,429.

Municipalities

Summary: Municipalities With Highest Number of Unserved Children and Worst Program Coverage

Eighteen municipalities with children in need had no summer program sites at all (Table 11). All of these municipalities have relatively small numbers of children in need, though three have near or over 1,000 children in need.

Table 11. Municipalities with No Summer Sites

<i>Municipality</i>	<i>Number of children in need</i>	<i>Municipality</i>	<i>Number of children in need</i>
Bedford Park	146	La Grange Park	356
Berkeley	638	Lemont	131
Burbank	1,868	Morton Grove	618
Countryside	111	North Riverside	132
Flossmoor	526	Palos Heights	973
Harwood Heights	147	Palos Park	113
Hickory Hills	611	Riverside	148
Hodgkins	138	Westchester	161
Justice	1,185	Willow Springs	150

Highest Number of Unserved Children

The municipalities in Table 12 have the highest numbers of unserved children, when all the various meal offerings are taken into consideration. Program investments in these municipalities have the potential to reach large numbers of children in need who are not currently served by a nutrition program. Many of the suburban municipalities with the highest number of unserved children border the city of Chicago particularly the southern and western boundaries. There are also a number of municipalities with the highest number of unserved children in north Suburban Cook County.

Table 12. Municipalities With Highest Number of Unserved Children; Summer Programs

<i>Municipality</i>	<i>Municipality</i>
1. Cicero	11. Melrose Park
2. Berwyn	12. Dolton
3. Chicago Heights	13. Lansing
4. Calumet City	14. Des Plaines
5. Harvey	15. Wheeling
6. Palatine	16. Oak Lawn
7. Streamwood	17. Park Forest
8. Blue Island	18. Northlake
9. Evanston	29. South Holland
10. Maywood	20. Bellwood

Worst Program Coverage

The municipalities in Table 13 had the highest averaged rank across all the program component ratios and can therefore be identified as the municipalities with the worst summer program coverage in relation to need. Nearly all of them have no child nutrition programs operating in the summer at all; only two, Buffalo Grove and Norridge

Table 13. Municipalities With Worst Overall (Averaged) Rank on Ratios for Summer Programs

<i>Municipality</i>	<i>Municipality</i>
1. Bedford Park*	11. Lemont*
2. Berkeley*	12. Morton Grove*
3. Burbank*	13. North Riverside*
4. Countryside*	14. Palos Heights*
5. Flossmoor*	15. Palos Park*
6. Harwood Heights*	16. Riverside*
7. Hickory Hills*	17. Westchester*
8. Hodgkins*	18. Willow Springs*
9. Justice*	19. Buffalo Grove
10. La Grange Park*	20. Norridge

*These municipalities ranked poorly due to having no child nutrition programs operating in the summer.

had programs. These municipalities are mostly clustered in the west and southwest regions of Suburban Cook County.

Meals: Early Snack, Breakfast, Morning Snack, Lunch, Afternoon Snack, Supper, and Evening Snack

Only 5 municipalities had summer sites that served early snacks (before breakfast). These were all CACFP sites, as it is the only program with this meal option.

Six municipalities with summer sites did not serve any breakfast meals. These municipalities are Buffalo Grove (843 children in need), Dixmoor (1,019), Lyons (931), Norridge (298), River Grove (571), and Summit (1,264). 1.61 breakfast meals were served throughout the entire

month for every 1 child in need across all Suburban Cook County municipalities. Among those that did serve breakfast, the 20 municipalities with the highest number of unserved children during breakfast are identified in Table 14.

Table 14. Municipalities with Highest Number of Unserved Children at Breakfast; Summer Programs

<i>Municipality</i>	<i>Unserved children</i>	<i>Municipality</i>	<i>Unserved children</i>
1. Cicero	15,510	11. Dolton	3,060
2. Berwyn	6,315	12. Melrose Park	3,051
3. Calumet City	5,350	13. Lansing	2,969
4. Chicago Heights	5,076	14. Des Plaines	2,891
5. Harvey	4,248	15. Oak Lawn	2,660
6. Palatine	4,060	16. Wheeling	2,658
7. Streamwood	3,588	17. Northlake	2,579
8. Evanston	3,584	18. Park Forest	2,331
9. Blue Island	3,461	19. Mt. Prospect	1,935
10. Maywood	3,321	20. Burbank	1,868

Sixty-three municipalities with summer sites did not have any morning snacks served. Afternoon snacks were far more likely to be served with only 12 municipalities lacking afternoon snack meals. Those municipalities were Buffalo Grove (843 children in need), Crestwood (657), Dixmoor (1,019),

Hometown (222), Lyons (931), Melrose Park (3,572), Norridge (298), Robbins (870), Schiller Park (826), South Chicago Heights (477), Streamwood (3,958), and Summit (1,264). Across all Suburban Cook County municipalities, for every 1 child in need there were 1.28 afternoon snacks served during the month in summer programs. Among those that did have afternoon snack meals served, the 20 municipalities with the highest number of unserved children in need at afternoon snack are identified in Table 15.

Table 15. Municipalities with Highest Number of Unserved Children at Afternoon Snack; Summer Programs

<i>Municipality</i>	<i>Unserved children</i>	<i>Municipality</i>	<i>Unserved children</i>
1. Cicero	16,231	11. Maywood	3,440
2. Berwyn	6,971	12. Lansing	3,062
3. Chicago Heights	6,111	13. Dolton	3,019
4. Calumet City	5,322	14. Des Plaines	2,942
5. Harvey	4,639	15. South Holland	2,687
6. Palatine	4,054	16. Oak Lawn	2,657
7. Streamwood	3,958	17. Wheeling	2,651
8. Melrose Park	3,572	18. Northlake	2,610
9. Blue Island	3,525	19. Park Forest	2,349
10. Evanston	3,495	20. Bellwood	2,121

Across all Suburban Cook County municipalities, for every 1 child in need there were 1.94 lunch meals served during the month in summer programs. Only 8 municipalities with summer sites did not have any lunch meals served. Those municipalities are Buffalo Grove (843

Table 16. Municipalities with Highest Number of Unserved Children at Lunch; Summer Programs

<i>Municipality</i>	<i>Unserved children</i>	<i>Municipality</i>	<i>Unserved children</i>
1. Cicero	16,205	11. Lansing	3,063
2. Berwyn	6,921	12. Des Plaines	2,945
3. Calumet City	5,272	13. Dolton	2,734
4. Chicago Heights	4,665	14. Evanston	2,726
5. Palatine	4,066	15. Oak Lawn	2,657
6. Streamwood	3,958	16. Wheeling	2,648
7. Harvey	3,836	17. Northlake	2,563
8. Melrose Park	3,572	18. Park Forest	2,224
9. Blue Island	3,373	19. Mt. Prospect	1,927
10. Maywood	3,132	20. Bellwood	1,905

children in need), Crestwood (657), Hometown (222), Lyons (931), Melrose Park (3,572), Norridge (298), Olympia Fields (1,389), and Streamwood (3,958). Among those that did have lunch meals served, the 20 municipalities with the highest number of unserved children at lunch are identified in Table 16.

Supper meal service was relatively uncommon; 61 municipalities with summer sites did not have any supper meals served during the month. Among the 16 that did, most supper meals were served through the CACFP. Only 2 municipalities (Cicero and South Holland) had any supper meals served through the SFSP.

Only 6 municipalities with summer programs had any evening snacks served. The CACFP is the only program that offers evening snack service. Even among the municipality with the best ratio on this measure, Steger, only half a meal (0.54) was served per child in need during the entire month.

Saturday and Sunday Sites

Just 17 municipalities had any summer sites that operated on Saturdays and just 4 had summer sites operating on Sundays. The reach of these weekend-operating sites was limited. Among Saturday-operating sites, the average ratio of sites to children in need was 1 to 2,532, meaning that for every Saturday site, there were 2,532 children in need. For Sunday sites, the ratio was 1 to 1,898.

School Year Child Nutrition Programs

Four nutrition programs operate during the school year: the National School Lunch Program, the School Breakfast Program, and the Afterschool Care Program operate exclusively in during the school year and the Child and Adult Care Food Program operates year round. The following analysis reflects an aggregate of all four of these programs.

Chicago Community Areas

Summary: Community Areas With Highest Number of Unserved Children and Worst Program Coverage

All of Chicago's 77 community areas had school year child nutrition program sites.

Highest Number of Unserved Children

The community areas in Table 17 have the highest numbers of unserved children, measured as the number of children not served by a school year nutrition program and are areas where program investments have the potential to reach large numbers of children. The community areas with the highest number of unserved children are clustered on the northwest, west, and southwest sides of Chicago.

Worst Program Coverage

The community areas in Table 18 had the highest averaged rank across all the program component ratios and can therefore be identified as the communities with worst school year program coverage in relation to need. These community areas are clustered in the far north/northwest of Chicago as well as on the southwest side.

Community Areas on Both Lists

Brighton Park and Douglas appear on both the listing of community areas with the highest number of unserved children *and* the worst summer program ratio ranking. This overlap indicates that program expansion efforts aimed at these community areas have the greatest potential to fill nutrition program gaps and reach large numbers of children in need.

Table 17. Chicago Community Areas With Highest Number of Unserved Children; School Year Programs

<i>Community area</i>	<i>Community area</i>
1. Belmont Cragin	11. Englewood
2. South Lawndale	12. North Lawndale
3. Near West Side	13. Logan Square
4. West Town	14. Irving Park
5. Austin	15. West Ridge
6. Gage Park	16. Lower West Side
7. Brighton Park	17. Roseland
8. New City	18. Ashburn
9. Douglas	19. Portage Park
10. Humboldt Park	20. Chicago Lawn

Bolded community areas appear on both the list of areas with the highest number of unserved children and those with worst program coverage.

Table 18. Chicago Community Areas With Worst Overall (Averaged) Rank on Ratios for School Year

<i>Community area</i>	<i>Community area</i>
1. O'Hare	11. Dunning
2. Norwood Park	12. Pullman
3. Forest Glen	13. Brighton Park
4. Edison Park	14. Edgewater
5. Jefferson Park	15. Douglas
6. Garfield Ridge	16. East Side
7. Mount Greenwood	17. Montclare
8. Avondale	18. North Park
9. Archer Heights	19. North Center
10. Clearing	20. Albany Park

Bolded community areas appear on both the list of areas with the highest number of unserved children and those with worst program coverage.

Meals: Early Snack, Breakfast, Morning Snack, Lunch, Afternoon Snack, Supper, and Evening Snack

No community areas had school year sites that served early snacks (before breakfast).

Across all Chicago community areas, for every 1 child in need there were a total of 5.82

breakfast meals served during the month in school year programs. Every community area with school year sites had sites that served breakfast meals. The community areas with the worst ratios of children in need to total breakfast meals served that month are in Table 19.

Table 19. Chicago Community Areas with Highest Number of Unserved Children at Breakfast; School Year Programs

<i>Community area</i>	<i>Unserved children</i>	<i>Community area</i>	<i>Unserved children</i>
1. South Lawndale	10,226	11. West Ridge	5,908
2. Belmont Cragin	9,767	12. Portage Park	5,905
3. Near West Side	7,894	13. New City	5,859
4. West Town	7,820	14. Irving Park	5,714
5. Brighton Park	7,508	15. Roseland	5,320
6. Austin	7,467	16. Albany Park	5,254
7. Gage Park	6,779	17. Englewood	5,163
8. Logan Square	6,177	18. Ashburn	5,152
9. Humboldt Park	6,163	19. Chicago Lawn	4,625
10. Douglas	5,958	20. North Lawndale	4,619

Sixty-two of the 77 community areas did not have any morning snacks served in school year programs. Afternoon snacks were far more likely to be served, with

Table 20. Chicago Community Areas with Highest Number of Unserved Children at Afternoon Snack; School Year Programs

<i>Community area</i>	<i>Unserved children</i>	<i>Community area</i>	<i>Unserved children</i>
1. South Lawndale	15,107	11. Englewood	8,280
2. Belmont Cragin	13,624	12. North Lawndale	7,967
3. Austin	11,935	13. Logan Square	7,768
4. West Town	10,672	14. Lower West Side	7,596
5. Near West Side	10,610	15. Roseland	7,316
6. Gage Park	9,852	16. Chicago Lawn	7,143
7. Brighton Park	9,761	17. Irving Park	7,115
8. New City	9,260	18. East Garfield Park	6,689
9. Humboldt Park	9,055	19. West Ridge	6,637
10. Douglas	8,407	20. West Englewood	6,617

afternoon snacks served in all but 8 community areas – East Side, Edison Park, Forest Glen, Jefferson Park, Montclare, Mount Greenwood, Norwood Park, and O’Hare. Across all Chicago community areas, for every 1 child in need there was a total of 1.20 afternoon snacks served during the entire month in school year

programs. Among those that did have afternoon snacks, the community areas with the highest number of unserved children at afternoon snack are displayed in Table 20.

Table 21. Chicago Community Areas with Highest Number of Unserved Children at Lunch; School Year Program

<i>Community area</i>	<i>Unserved children</i>	<i>Community area</i>	<i>Unserved children</i>
1. Near West Side	3,163	11. Brighton Park	1,709
2. Douglas	2,785	12. Irving Park	1,544
3. Belmont Cragin	2,624	13. South Lawndale	1,506
4. West Town	2,245	14. West Lawn	1,501
5. Gage Park	2,227	15. Austin	1,360
6. West Ridge	2,119	16. Auburn Gresham	1,175
7. North Center	2,100	17. New City	1,174
8. Portage Park	2,064	18. Albany Park	1,167
9. Englewood	1,925	19. North Lawndale	1,156
10. Archer Heights	1,770	20. East Garfield Park	1,148

Across all Chicago community areas, for every 1 child in need there was a total of 13.90 lunch meals served during the month in school year programs. All community areas had lunch meals served during September 2009. The communities with the highest number of unserved children at lunch are in Table 21.

Supper meal service was less common than breakfast or lunch service; 35 community areas with school year sites did not have any supper meals served during the month (Table 22). Among the 42 that did, all supper meals were served through the CACFP, the only school year program offering the meal.

Table 22. Chicago Community Areas With No Supper Meals Served; School Year Programs

<i>Community Area</i>	<i>Community Area</i>	<i>Community Area</i>
Albany Park	East Side	Montclare
Archer Heights	Edgewater	Mount Greenwood
Armour Square	Edison Park	North Center
Ashburn	Forest Glen	North Park
Avondale	Fuller Park	Norwood Park
Belmont Cragin	Gage Park	O'Hare
Beverly	Garfield Ridge	Pullman
Burnside	Hegewisch	West Elsdon
Calumet Heights	Jefferson Park	West Garfield Park
Chatham	Lincoln Park	West Lawn
Clearing	Loop	Woodlawn
Douglas	McKinley Park	

Only 2 community areas with school year programs served evening snacks. The CACFP is the only program that provides reimbursement for evening snack service. In these two community areas, Englewood and East Side, the average of children in need to total evening snacks served during the month was 1 to 0.15, meaning that for every child in need, 0.15 evening snacks were served.

Saturday and Sunday Sites

Forty-one community areas did not have any Saturday-operating school year sites and 73 did not have any Sunday-operating sites. The reach of weekend-operating sites is limited. Among Saturday-operating sites, the average ratio of sites to children in need was 1 to 3,224, meaning that for every Saturday site, there were 3,224 children in need. For Sunday sites, the ratio was even worse at 1 to 5,700.

Municipalities

Summary: Municipalities With Highest Number of Unserved Children and Worst Program Coverage

All municipalities with children in need had school year program sites in operation in September 2009.

Highest Number of Unserved Children

The municipalities in Table 23 have the highest numbers of unserved children, measured as the number of children not served by a school year nutrition program and are areas where program investments have the potential to reach large numbers of children. Many of the suburban municipalities with the highest number of unserved children border the city of Chicago particularly the southern and western boundaries. There are also a number of municipalities with the highest number of unserved children in north Suburban Cook County.

Table 23. Municipalities With Highest Number of Unserved Children; School Year

<i>Municipality</i>	<i>Municipality</i>
1. Cicero	11. Maywood
2. Berwyn	12. Lansing
3. Chicago Heights	13. Des Plaines
4. Palatine	14. Dolton
5. Calumet City	15. Oak Lawn
6. Streamwood	16. Wheeling
7. Harvey	17. South Holland
8. Evanston	18. Northlake
9. Melrose Park	19. Park Forest
10. Blue Island	20. Mt. Prospect

Bolded municipalities appear on both the list of areas with the highest number of unserved children and those with the worst program coverage.

Worst Program Coverage

The municipalities identified in Table 24 had the highest averaged rank across all the program component ratios and can therefore be identified as the municipalities with the worst program coverage in relation to need. These municipalities are mostly in the west and southwest regions of Suburban Cook County.

Table 24. Municipalities With Worst Overall (Averaged) Rank on Ratios for School Year

<i>Municipality</i>	<i>Municipality</i>
1. Hickory Hills	11. Norridge
2. Berkeley	12. Harwood Heights
3. Palos Heights	13. Oak Lawn
4. Flossmoor	14. Burbank
5. La Grange Park	15. Countryside
6. Palos Park	16. Summit
7. Riverside	17. Westchester
8. Buffalo Grove	18. Hodgkins
9. Justice	19. Morton Grove
10. Lyons	20. North Riverside

Bolded municipalities appear on both the list of areas with the highest number of unserved children and those with worst program coverage.

Municipalities on Both Lists

Oak Lawn appears on both the listing of municipalities with the highest number of unserved children *and* the worst summer program ratio ranking. This overlap indicates that program expansion efforts aimed at this municipality have the greatest potential to fill nutrition program gaps and reach large numbers of children in need.

Meals: Early Snack, Breakfast, Morning Snack, Lunch, Afternoon Snack, Supper, and Evening Snack

Only 5 municipalities had school year sites that served early snacks (before breakfast). These were all CACFP sites, as it is the only program with this meal option.

Across all Suburban Cook County municipalities, for every 1 child in need there were 5.52 breakfast meals served during the month in school year programs. Fifteen municipalities with school year sites did not

Table 25. Municipalities with No Breakfast Meals Served During Month; School Year Programs

<i>Municipality</i>	<i>Number of children in need</i>	<i>Municipality</i>	<i>Number of children in need</i>
Berkeley	638	Lemont	131
Countryside	111	Norridge	298
Flossmoor	526	North Riverside	132
Harwood Heights	147	Palos Park	113
Hickory Hills	611	River Grove	571
Hodgkins	138	Riverside	148
Justice	1,185	Westchester	161
La Grange Park	356		

serve any breakfast meals. These municipalities are identified in Table 25. Among those that had breakfast meals served, the 20 municipalities with the highest number of unserved children at breakfast are in Table 26.

Table 26. Municipalities with Highest Number of Unserved Children at Breakfast; School Year Programs

<i>Municipality</i>	<i>Unserved children</i>	<i>Municipality</i>	<i>Unserved children</i>
1. Cicero	13,639	11. Lansing	2,721
2. Berwyn	6,095	12. Des Plaines	2,674
3. Chicago Heights	4,172	13. Northlake	2,556
4. Palatine	3,341	14. Oak Lawn	2,477
5. Melrose Park	3,173	15. Wheeling	2,251
6. Streamwood	3,116	16. South Holland	1,986
7. Evanston	3,103	17. Blue Island	1,956
8. Maywood	2,987	18. Mt. Prospect	1,618
9. Calumet City	2,928	19. Bellwood	1,612
10. Harvey	2,865	20. Dolton	1,563

Eighty municipalities with school year sites did not have any morning snacks served. Afternoon snacks were far more likely to be served, but still 28 municipalities lacked afternoon snack meals (Table 27).

Table 27. Municipalities with No Afternoon Snacks Served During Month; School Year Programs

<i>Municipality</i>	<i>Municipality</i>	<i>Municipality</i>
Bedford Park	Hodgkins	Palos Heights
Berkeley	Hometown	Palos Park
Buffalo Grove	Justice	Riverside
Burbank	La Grange Park	Schiller Park
Countryside	Lemont	South Chicago Heights
Crestwood	Lyons	Summit
Dixmoor	Melrose Park	Westchester
Flossmoor	Morton Grove	Willow Springs
Harwood Heights	Norridge	
Hickory Hills	North Riverside	

Across all Suburban Cook County municipalities, for every 1 child in need there were 16.48 lunch meals served during the month in school year programs. All municipalities

had lunch meals served through school year programs. The 20 municipalities with the highest number of unserved children at lunch are in Table 28.

Supper meal service was relatively rare; only 18 municipalities with school year sites had any supper meals served during the month. All supper meals were served through the CACFP, which is the only school year program to offer the meal.

Table 28. Municipalities with Highest Number of Unserved Children at Lunch; School Year Programs

<i>Municipality</i>	<i>Unserved children</i>	<i>Municipality</i>	<i>Unserved children</i>
1. Cicero	3,827	11. Evanston	754
2. Berwyn	1,748	12. Wheeling	753
3. Oak Lawn	1,047	13. Dolton	719
4. Streamwood	1,009	14. Blue Island	624
5. Chicago Heights	991	15. Calumet City	593
6. Palatine	958	16. Mt. Prospect	571
7. Burbank	879	17. Melrose Park	568
8. Des Plaines	852	18. Bartlett	563
9. Lansing	799	19. Matteson	550
10. Northlake	762	20. Harvey	539

Only 6 municipalities with school year programs served evening snacks. The CACFP is the only program that provides reimbursement for evening snack service. Even among the municipality with the best ratio on this measure, Steger, only half a meal (0.54) was served per child in need during the month in school year sites.

Saturday and Sunday Sites

Just 13 municipalities had any school year sites that operated on Saturdays and just 2 had sites operating on Sundays. The reach of these weekend-operating sites was limited. Among Saturday-operating sites, the average ratio of sites to children in need was 1 to 2,856, meaning that for every Saturday site, there were 2,911 children in need. For Sunday sites, the ratio was 1 to 2,222.



Findings: The Nutritional Lives of Children

This section examines the nutritional lives of school-age Cook County children to determine levels of food insecurity and to identify areas where child nutrition programs can be strengthened. Whereas in the prior section various meal references related only to reimbursable meals served through child nutrition programs, the term meals is used more broadly in this section to identify the times of day children ate. Some of the meals children reported eating may have indeed been reimbursable child nutrition program meals, but others were not.

Key Findings on the Nutritional Lives of Children

Food Insecurity

The children who participated in this study experienced extremely high rates of food insecurity. Over half (53.9 percent) of the children were food insecure. Thirty-nine percent of the children were food insecure *without* hunger. Children experiencing food insecurity *without* hunger report reduced quality, variety, or desirability of diet, but little or no indication of reduced food intake.⁷⁸ Nearly 1 in 6 children experienced food

Over HALF of children were food insecure.

insecurity *with* hunger, meaning that they report multiple indications of disrupted eating patterns and reduced food intake.⁷⁹ Younger children in this study were more susceptible to experiencing food insecurity, likely because they are less in control of their nutritional lives; they have less opportunity both socially and economically to obtain food on their own than older children.

The USDA food security module from which commonly used rates of child food insecurity are derived differs in substantial ways from the CFSSM used in this study. The USDA module uses parents as respondents, uses the household as the unit of analysis, and measures experiences with food insecurity over the course of 12 months. The CFSSM, the only food insecurity measure developed and tested for use directly with children, captures children's responses about their individual experiences with food insecurity over the course of the past month. As a result rates of food insecurity from the USDA measure cannot be directly compared to the food insecurity findings in this study.

For the sake of context however, it is interesting to note that while 53.9 percent of children in this study were food insecure, 22.5 percent of all U.S. children are food insecure according to the latest USDA food security module data (which reflects 2008).

Food insecurity and hunger are derivatives of poverty, and research shows that children from poorer households are much more susceptible to food insecurity and hunger than

their higher income counterparts. Though this study did not collect any demographic information beyond age and gender, based on where sample sites were located and on the research team's observations, we know that the lion's share of children were minority and the vast majority of them low-income, coming from neighborhoods that were much more likely to be poor and have lower incomes than Cook County and Chicago as a whole. Sample site census tracts have an overall poverty rate of 25.0 percent,⁸⁰ while the City of Chicago and Cook County have poverty rates of 20.6 and 14.8 percent, respectively.⁸¹

The USDA measure reports food insecurity rates by demographics and finds rates of food insecurity among poor and minority children that are reflected in the findings of this study:

- Minority children are much more likely to live in food insecure households than white children: 16.0 percent of white, non-Latino, 34.0 percent of black, and 33.9 percent of Latino children are food insecure.⁸²
- Similar to the food insecurity rate of this sample, over half (51.5 percent) of children in poor households experience food insecurity, compared to only 9.8 percent of children in households with incomes at or above 185 percent of the poverty line.⁸³

Additionally, this study took place in the summer of 2009 during a recession the likes of which hadn't been seen since the Great Depression. Unemployment in Cook County that summer ranged from 10 to 11.5 percent – levels not seen for decades. The high rates of food insecurity for this study compared to studies done even a year or two prior may be explained, at least in part, by the fact that this study measured children's food security during this period of unprecedented economic hardship for many families.

Nutritional Intake & the Out-of-School Program

Out-of-school programs play a critical role in serving daytime meals, serve healthier food than the home, and have a significant impact on fruit and vegetable consumption.

One quarter of all food consumed by the children in this sample came from the out-of-school program they were attending. Out-of-school programs meet outside of school hours at schools, parks, churches, community centers, or other places, and generally combine a mix of academic, recreational, or cultural activities for children and youth. The out-of-school programs in this study were nutrition program sites, which means they serve federally-reimbursed meals that meet certain nutritional guidelines.

The program is second only to the home as the primary food provider. With rising poverty, eroding incomes, and rising costs of basic goods including food, increasing numbers of parents are having a difficult time feeding their children. Out-of-school programs play a critical role in serving daytime meals: 61.8 percent of all lunch food servings the children consumed came from the out-of-school

program, along with 31.9 percent of morning snack servings, 25.6 percent of afternoon snack servings, and 23.9 percent of breakfast servings.

The extraordinarily high levels of food insecurity among these children who are attending programs that are service delivery sites for federal nutrition programs underscore how vitally important child nutrition programs truly are in meeting a great need. A number of findings highlight the centrality of the out-of-school program in the nutritional lives of children. For instance, the out-of-school program served healthier food than the home: As a percent of overall food servings, foods consumed from the out-of-school programs was less likely to consist of junk foods, water, pop/other non-fruit juice drinks, and fried foods than home. On the flip side, the programs' food offerings were more likely to consist of dairy, fruit, and vegetables, than home.

In no main food group were even half of the children meeting the recommended daily allowance.

Additionally, out-of-school programs have a significant impact on fruit and vegetable consumption. While 58.1 percent of children consumed no fruit servings from home, only 32.5 percent did not consume any fruit servings from both home and their out-of-school program (65.4 and 50.3 percent for vegetables, respectively).

With such a pronounced presence in the lives of the children they serve, improvements in the content and offering of food at these programs can truly have a profound impact on children's nutritional intake. Certain findings illuminate areas of potential improvement:

- The children in this sample had less than ideal nutritional intake:
 - In no main food group (fruits, vegetables, grains, dairy, or proteins) were even half of the children meeting the recommended daily allowance (RDA).
 - Only 16.7 percent of children met the RDA for proteins.
 - A mere 7.8 percent of all children met the RDA amount for both fruits and vegetables.
 - Twenty-eight percent of all children did not eat any fruit in the last 24 hours, and 46 percent did not eat any vegetables at all.
 - Only 0.7 percent met the RDA for all five food groups.
 - The USDA recommends that children eat an average of 1.5 servings of fruits and 2 servings of vegetables daily.⁸⁴ Other studies show that children generally do not meet these recommended levels; on average, children consume only half the recommended minimum number of servings of fruit and just over half for vegetables,⁸⁵ though in those studies, fried potatoes are included as vegetables.⁸⁶ Nutritionists recommend more leafy green or orange vegetables, and less starchy vegetables like potatoes.⁸⁷
- Around 15 percent of children did not eat any breakfast, 23 percent missed lunch, and 15 percent missed dinner. All told, 45 percent of children in the sample

missed a main meal in the last 24 hours. Though the oldest age group, 14 through 17 year olds, were more likely than younger children to miss a meal, they were also more likely to snack throughout the day. The youngest children, 7 through 9 years old, were most likely to eat all three main meals,

45 percent of children missed a main meal in the last 24 hours.

and least likely to snack throughout the day. The high rates of skipped meals among a sample of children attending a nutrition program underscores how dire the situation might be if the program were not available to these children.

- Snacks, whether served as part of the nutrition program or obtained in other ways from elsewhere, play a very important role in filling in the gaps for children that miss meals:
 - 14.9 percent that missed breakfast had a morning snack.
 - 60.6 percent that missed lunch had an afternoon snack.
 - 50.0 percent that missed dinner had an after dinner snack.
 - 20.5 percent that did not eat all three meals had a morning snack, 61.5 percent had an afternoon snack, and 47.2 percent had an after dinner snack.
- 60.3 percent of fruit servings consumed at the out-of-school program were fruit juice, which has less nutritional value than whole fruit.
- After dinner snack servings were more likely than other meals to be eaten at home and to consist of junk foods, pop/other non-fruit juice drinks, and water, and less likely than other meals to consist of more nutritious foods like vegetables, fruit, and proteins.

This portion of the study was an examination of the nutritional lives of children already attending food programs. The first portion of the analysis revealed that there are many more children in need who are not in programs like those included here. These children may be even worse off because they do not have access to additional meals and nutrients that child nutrition programs provide.

Considerations Related to Food Insecurity and Nutritional Intake Findings

All children in this sample were attending out-of-school programs that were participating in the Summer Food Service Program (SFSP), and so meals served presumably met the nutritional guidelines for that program. SFSP meals follow USDA nutritional guidelines and include 1 serving of milk, 2 servings of fruits and/or vegetables, 1 serving of grains, and 1 serving of protein.⁸⁸ Many children did not report consuming these amounts of each food group and report, in some instances, high consumption of food with little to no nutritious value. This may be attributed to recall issues (having trouble remembering what was eaten), identification issues (not realizing that vegetables were mixed into dish consumed), not being at the program the prior day, or because children were specifically instructed to report only what they *consumed*, not what they were served. It may also be

that at least a portion of certain foods is being served outside of the nutrition program food or children are getting that food from competing on-site sources. Reporting of food from off-site sources as from the out-of-school program should not have occurred since children were instructed to report where the food originated from, not simply where they consumed it.

This analysis likely understates the central role nutrition programs play in children’s weekday lives because 17 percent of the sample was surveyed on Monday; their last 24 hours included Sunday when they were not attending the program. This study was also not able to capture children’s full weekend nutritional experiences or school year experiences. As the earlier analysis on program coverage reveals, children are better served by nutritional programs during the school year due to being in school where in many instances breakfast and lunch are readily available.

Demographics of Sample

560 children were eligible for the study (defined as completed, signed consent forms for them were returned), and usable surveys were obtained from 437 or 78 percent of eligible children. Of the 437 children with usable surveys, 69.6 percent were enrolled in a Kids Cafe site, and the remaining 30.4 percent were enrolled in Boys and Girls Clubs.

The study’s sample was dominated by younger children (Table 29). High school age children in the age range of 14 to 17 years comprised 13.6 percent of the sample, while the remainder of the sample was split nearly equally between the 7 to 9 year old and the 10 to 13 year old age groups. The average age of children in the sample was 10.4 years old. The children in the sample were slightly more likely to be female (55.1 percent).

Table 29. Age of Sample

n=435	<i>Number</i>	<i>Percent</i>
7 to 9 years old [§]	183	42.1%
10 to 13 years old	193	44.4
14 to 17 years old	59	13.6
Total	435	100.0

Aside from age and gender, no other demographic information was gathered from the children in the sample. While information on race/ethnicity, child’s neighborhood, family income, and so on would have been interesting additions, this information was not collected based on a) the feasibility of collecting that information from children, b) the administrative burden that would have been incurred on program staff if they had to pull the information from program records, and c) the heightened privacy and confidentiality concerns around doing research with children.

[§] 2 children were actually still 6 years old, but their parents indicated that they were 7, and since their birthdates were within a few weeks, these children were permitted to take part in the study. An additional two children did not identify their age, so are not included in the age breakdown.

The children in this sample came from higher poverty, lower income areas of Cook County. The census tracts of the 19 sample sites had an overall poverty rate of 25 percent, and an overall school-age (5 to 17) child poverty rate of 42 percent – rates much higher than the overall rates for Cook County.⁸⁹ Poverty ranged from a low of 7.7 percent in one tract to a high of 64.3 percent in another. The average median household income of the site census tracts was \$38,175 (in 2008 dollars), roughly 170 percent of the federal poverty line for a family of four.

Food Insecurity

Ninety-seven percent of the children completed the Child Food Security Survey Module (CFSSM). The majority of them (53.9 percent) were food insecure (Table 30). The mean raw score on the CFSSM was 2.5. Food insecurity *without* hunger was a reality for 38.5 percent of the children. Food insecurity *with* hunger affected 15.4 percent of the children.

Table 30. Food Security Status and Raw Score as Measured by the CFSSM

n=423	Number	Percent
Food secure	195	46.1%
Raw score 0	114	27.0
Raw score 1	81	19.1
Food insecure without hunger	163	38.5
Raw score 2	45	10.6
Raw score 3	50	11.8
Raw score 4	41	9.7
Raw score 5	27	6.4
Food insecure with hunger	65	15.4
Raw score 6	34	8.0
Raw score 7	18	4.3
Raw score 8	8	1.9
Raw score 9	5	1.2
Total food insecure (combined food insecure with and without hunger)	228	53.9

Definition of Food Insecurity and CFSSM Scoring

There are two degrees of severity in food insecurity, one classified as food insecure without hunger and the other food insecure with hunger.

Children experiencing food insecurity without hunger report reduced quality, variety, or desirability of diet, but little or no indication of reduced food intake. On the Child Food Security Survey Module (CFSSM), the survey measuring levels of food insecurity, a raw score of 2 through 5 indicates food insecurity without hunger.

Food insecure with hunger means that the child reports multiple indications of disrupted eating patterns and reduced food intake. A raw score of 6 through 9 on the CFSSM indicates food insecurity with hunger.

U.S. Department of Agriculture. Food Security in the United States: Key Statistics and Graphics. Retrieved from http://www.ers.usda.gov/Briefing/FoodSecurity/stats_graphs.htm#food_secure

Age was negatively associated with the raw score on the CFSSM, meaning that older children had lower scores on the measure, hence lower levels of food insecurity than younger children. As Table 31 indicates, the youngest age group was the most food insecure, with two thirds of the children in that age range experiencing some form of food insecurity. The share of children experiencing food insecurity diminished with age, with just over half (52.9 percent) of 10 to 13 year olds and less than one in five (18.6 percent) 14 to 17 year olds experiencing food insecurity with or without hunger.

The youngest age group represented 42.1 percent of the overall sample, but 50 percent of those experiencing food insecurity. The youngest children were even more likely to be overrepresented in the

numbers of those who were food insecure with hunger, where they represented 60 percent of children with such a score.

Table 31. Share of Each Age Group by Food Security Status

	<i>Food secure (n=195)</i>	<i>Food insecure without hunger (n=161)</i>	<i>Food insecure with hunger (n=65)</i>	<i>Total food insecure (combined food insecure with and without hunger)</i>
7 to 9 years old (n=171)	33.3%	43.9%	22.8%	66.7%
10 to 13 years old (191)	47.1	41.4	11.5	52.9
14 to 17 years old (n=59)	81.4	11.9	6.8	18.6
All Ages (n=423)	46.1	38.5	15.4	53.9

Analysis Notes

The remainder of this section focuses on details of the nutritional lives of children. In *What Children Are Eating*, we take a closer look at the actual food items the children reported eating and the broader food types those items fall into. We examine these designations in terms of what time of day consumption occurs (meals) and how the children in the sample fare in meeting the recommended daily allowance (RDA) for the main food groups. In *Where Children Are Eating*, we examine what types of foods are being consumed and which meals are eaten in light of the places children are getting food from.

USDA Recommended Daily Allowances For Children

A detailed explanation of the recommended daily allowances (RDA) of each food type for various age and gender categories of children according to the USDA’s Food Pyramid can be found in Appendix B along with how those guidelines were operationalized for this study. For the purposes of this study, the USDA RDAs for children were summarized as follows:

Fruits	1.5 servings
Vegetables	2 servings
Dairy	3 servings
Grains	6 servings
Proteins	5 servings

While the food security status analysis provides an important contextual layer, we do not make attempts to cross tabulate any of the nutritional information below with children’s food security status. Doing so would undoubtedly result in a distorted picture since the data collected on food intake covered only the last 24 hours, while the CFSSM asks children to recall their experiences in the past month. For many if not most of the children in the sample, the last month included days or even weeks when they were not attending the out-of-school program (many had only begun operation 2 or 3 weeks before data were collected from the children) and so may have been more food insecure considering the entire month than their last 24 hours might suggest. Similarly, experiences with food insecurity and hunger are more often than not intermittent and seasonal, and a 24-hour snapshot of food consumed is not a reliable reflection of children’s food security over time.

** two children did not identify their age, so are not included in the age breakdown but are included in the All Ages row.

What Children Are Eating

The analysis below examines what children report eating in the 24 hours prior to being surveyed. All children in this sample were attending out-of-school programs that were participating in the Summer Food Service Program (SFSP) and so it is assumed that meals served met the nutritional guidelines for that program. SFSP meals follow USDA nutritional guidelines. Many children did not report consuming these amounts of each food group in the 24 hour time frame. This may be attributed to recall issues (having trouble remembering what was eaten), identification issues (not realizing that vegetables were mixed into dish consumed), not being at the program the prior day, or because children were specifically instructed to report only what they *consumed*, not what they were served.

Food Items: food items are defined here as the actual *food item* identified by the child. Examples include tacos, juice, flaming hot chips, or apple. Each child also reported the serving size they consumed of each food item.

Table 32. Top 5 Most Commonly Consumed Food and Beverage Items by Instances of Consumption and Servings Consumed

<i>Food</i>	<i>Instances of consumption (rank with 1 being most common)</i>	<i>Servings consumed (rank with 1 being the highest volume)</i>	<i>Beverages</i>	<i>Instances of consumption (rank with 1 being most common)</i>	<i>Servings consumed (rank with 1 being the highest volume)</i>
Cereal	295 (1)	641.5 (2)	Juice	419 (1)	507.25 (2)
Sandwich	197 (2)	716.25 (1)	Milk	373 (2)	492.5 (3)
Chips	166 (3)	238.5 (5)	Water	318 (3)	586.5 (1)
Chicken	117 (4)	251.5 (3)	Pop	167 (4)	272.5 (4)
Cookies	89 (5)	224 (6)	Kool Aid	39 (5)	74.5 (5)

Collectively, there were 4,290 food items consumed by the children in the 24 hours prior to survey administration, for an average of 9.82 food items per child. The average number of items consumed among age groups did not vary significantly. The top five most commonly consumed food and beverage items are displayed in Table 32. The most commonly consumed food item was cereal with 295 instances of consumption, and the most commonly consumed drink was juice with 419 instances of consumption. The table also shows that the ranking of food items by instances of consumption differed from that of servings consumed, meaning that certain food items were consumed in larger quantities than others. For instance, while juice was the most commonly consumed beverage, water comprised the greatest number of servings consumed.

Food Type: each food item a child reported eating was tagged as a grain, protein, dairy, fruit (and fruit juice), vegetable, water, various categories of junk food (e.g., candy, cookies, chips), pop/other non-fruit juice drinks, or fats/oil. Any given food item could receive up to three different type designations. For instance, fried chicken is typed as both a protein and a fried food. For additional detail on how food type labels were determined and definitions of the various food types, see Appendix B.

Grains were the most commonly eaten food type, with an average of 5.95 servings per child in the 24 hour reporting period, followed by proteins at 2.94 servings per child (Table 33). Vegetable consumption fared poorly with an average of only 0.76 servings per child.

An average of 1.68 servings of fruit was consumed by the children surveyed, which meets the recommended daily allowance (RDA) for fruit. The USDA counts servings of fruit juice toward the RDA of fruit servings, while recognizing that the nutritional value of fruit juice is not equal to that of whole fruit and urging consumers to “go easy” on fruit juice.⁹⁰ Fifty-seven percent of fruit servings consumed by the children

Table 33. Type of Food by Number of Servings Consumed

n=437	Total Servings	Average serving Per Child
Grains	2,602.25	5.95
Proteins	1,284.00	2.94
Junk foods	1,069.50	2.45
Dairy	985.50	2.26
Fruit	736.25	1.68
Fruit juice	420.25	0.96
Whole fruit	316.00	0.72
Water	585.50	1.34
Vegetables	333.50	0.76
Pop/other non-fruit juice drinks	688.00	1.57
Other non-fruit juice drink	424.00	0.97
Pop	264.00	0.60
Fried food	222.00	0.51
Fats and oils	188.50	0.43
Total	8,695.00	19.90

came from fruit juice, dropping the average servings of whole fruit per child down to 0.72.

If a child indicated any sort of fruit juice, those servings received a fruit designation, but many children and field workers did not document (or know) if the juice was 100 percent fruit juice. Consequently, the fruit designation was likely generously applied and overstates fruit consumption.

Conversely, the fats and oils category likely under represents servings consumed since many children and field workers did not document the characteristics of the food consumed consistently at that level of detail. As such, fats and oils information is presented in all tables, but excluded from all subsequent discussion.

Of all the whole fruit consumed (excluding fruit juice), 45.5 percent of all servings came from apples, bananas, and oranges (Table 34). The “Other, identified category” consists of all other fruits not listed in the table, such as pineapple, kiwi, etc. that individually comprised small percentages of overall fruit consumption but together accounted for 26.1 percent of all fruit servings consumed.

Vegetables were less likely than fruit to be eaten alone and were more likely to be consumed as parts of other dishes. Of all vegetable servings consumed, 37.9 percent came in the form of mixed dishes such as casseroles, spaghetti, or soup. Of the remaining 62.1 percent of vegetable servings, 47.5 percent came from salads.

Table 34. Fruit Servings Consumed

n=316.00	Percent of all fruit servings
Apple	19.9%
Banana	15.2
Orange	10.4
Unidentified	8.7
Strawberry	5.3
Watermelon	5.1
Fruit salad, cup, or cocktail	4.7
Grapes	4.6
Other, identified	26.1
Total	100.0

As expected, the oldest age group, 14 through 17 year olds, ate more servings of food overall than the younger age groups (Table 35). As a group, they on average consumed higher levels of fried foods and pop/other non-fruit juice drinks.

Table 35. Average Servings Consumed of Each Food Type per Child by Age

	6 to 9 year olds (n=3625)	10 to 13 year olds (n=3724.5)	14 to 17 year olds (n=1328.5)	All Ages ^{††} (n=8695)
Grains	6.06	5.88	6.01	5.95
Proteins	3.02	2.71	3.51	2.94
Junk foods	0.96	0.96	1.82	1.07
Dairy	2.56	2.11	1.85	2.26
Fruit	1.84	1.62	1.43	1.68
Fruit juice	1.08	0.92	0.75	0.96
Whole fruit	0.76	0.70	0.68	0.72
Water	1.11	1.44	1.75	1.34
Vegetables	0.66	0.87	0.64	0.76
Pop/other non-fruit juice drinks	1.09	1.68	2.77	1.57
Other non-fruit juice drink	0.71	1.09	1.41	0.97
Pop	0.38	0.59	1.36	0.60
Fried food	0.48	0.39	1.01	0.51
Fats and oils	0.37	0.46	0.54	0.43
Total	19.81	19.30	22.52	19.90

The children in the sample fared very poorly in consuming the recommended daily allowance (RDA) of servings for any food group (Table 36). Protein and vegetable consumption fared worst with only 16.7 percent of children meeting the RDA for each of those food types. Though 48.1 percent of the sample met the RDA for fruit, when fruit juice servings are excluded, that percentage falls to 19.2. Even counting fruit juice, only

^{††} two children (representing 17 food servings) did not report their age and so are not included in the age breakdown, but are included in the All Ages column.

7.8 percent of the sample met the RDA for both fruits and vegetables. Only three children met the RDA amount for all five main food groups. Forty-six percent of all children in the sample did not eat any vegetables in the last 24 hours, and 28 percent did not eat any fruit at all.

Table 36. Percent of Children Consuming Recommended Daily Allowance by Age

	7 to 9 year olds (n=183)	10 to 13 year olds (n=193)	14 to 17 year olds (n=59)	All Ages (n=437) ^{##}
Fruits	54.6%	46.6%	33.9%	48.1%
Whole fruits	22.4	17.1	15.3	19.2
Grains	47.5	45.6	50.8	46.7
Dairy	39.9	26.9	33.9	33.0
Vegetables	13.7	18.7	18.6	16.7
Proteins	18.0	13.0	27.1	16.7
Met for both fruits and vegetables	6.0	10.4	5.1	7.8
Met for all food groups	0.5	1.0	1.7	0.7

Meals: Children were asked to specify what time of day they ate each reported food item from the following options, which are called meals in the section below: breakfast, lunch, dinner, morning snack, afternoon snack, or after dinner/before bed snack.

Overall, the average number of food servings consumed per child was 19.90 in the 24 hours prior to the survey (Table 37). Children consumed the most servings of food at dinner, followed by lunch and then breakfast. Logically, snacks have lower average servings per child than main meals, with morning snacks being the lowest.

Table 37. Average Servings of Food Consumed

	Average serving per child who ate the meal ^{##}
Dinner (n=373)	6.35
Lunch (n=333)	6.18
Breakfast (n=370)	5.37
Afternoon snack (n=254)	4.93
After dinner (n=190)	3.85
Morning snack (n=89)	2.98
All Meals* (n=437)	19.90

Just over half of the children ate all three meals in the 24 hours reported (Table 38). The most commonly missed meal was lunch, with 23.8 percent of children not eating the meal. Dinner and breakfast had similar rates of consumption to each other, with 14.6 and 15.3 percent respectively of children not eating those meals. The high rates of skipped meals among a sample of children attending a nutrition program underscores how dire the situation might be if the program were not available to these children.

^{##} two children (representing 17 food servings) did not report their age and so are not included in the age breakdown, but are included in the All Ages column.

^{##} Meal time was not identified for 33 food servings, and so these servings are not included in the meal breakdown, but are included in the All Meals row.

Table 38. Percent of Children Eating Meal

	7 to 9 year olds (n=183)	10 to 13 year olds (n=193)	14 to 17 year olds (n=59)	All Ages*** (n=437)
Breakfast	88.0%	82.4%	81.4%	84.7%
Lunch	78.7	76.2	67.8	76.2
Dinner	85.8	86.0	81.4	85.4
Ate all three main meals	58.5	54.4	47.5	55.4
Morning snack	16.9	21.2	28.8	20.4
Afternoon snack	57.4	59.6	57.6	58.1
After dinner snack	41.5	44.6	47.5	43.5

While individual meal consumption rates were relatively high, 44.6 percent of children did not eat all three main meals, indicating that a substantial number of children skipped at least one meal. The oldest age group is the most likely to not have eaten all three meals in the 24 hours prior to being surveyed. It should be noted that meal consumption is not an indication of meal completeness. For example, one child may have had only half a serving of a pop tart for breakfast, while another may have had a breakfast consisting of an adequate number of servings from a variety of food groups.

Snacks, whether served as part of the nutrition program or obtained in other ways from elsewhere, play a very important role in filling in the gaps for children that miss meals:

- 10 of the 67 children (14.9 percent) that missed breakfast had a morning snack.
- 63 of the 104 children (60.6 percent) that missed lunch had an afternoon snack.
- 32 of the 64 children (50.0 percent) that missed dinner had an after dinner snack.
- 40 of the 195 children (20.5 percent) that did not eat all three meals had a morning snack.
- 120 of the 195 children (61.5 percent) that did not eat all three meals had an afternoon snack.
- 92 of the 195 children (47.2 percent) that did not eat all three meals had an after dinner snack.

Table 39 shows for each meal the share of servings classified as each food type. Nearly 30 percent of all food servings consumed by the children in the last 24 hours were grains, with proteins coming in second with 14.8 percent of the overall share of servings. Only 8.5 percent were fruits (over half of them fruit juice) and only 3.8 percent of all servings were vegetables.

As a share of all food servings consumed for each particular meal:

- Breakfast servings were **more likely** than most other meals to consist of grains, dairy, and fruit, and **less likely** than most other meals to consist of vegetables, fried foods, and pop/other non-fruit juice drinks.

*** two children did not identify their age, so are not included in the age breakdown but are included in the All Ages column.

- Lunch servings were **more likely** than most other meals to consist of proteins and dairy, and **less likely** to consist of junk foods and water than most other meals.
- Dinner servings were **more likely** than most other meals to consist of proteins, vegetables, pop/other non-fruit juice drinks, and fried foods, and **less likely** than most other meals to consist of junk foods, dairy, and fruit.
- Morning snack servings were **more likely** than most other meals to consist of junk foods and fruit, and **less likely** to consist of vegetables and pop.
- Afternoon snack servings were **more likely** than most other meals to consist of pop and **less likely** to consist of fried foods than most other meals.
- After dinner snack servings were **more likely** than most other meals to consist of junk foods, pop/other non-fruit juice drinks, and water, and **less likely** than most other meals to consist of vegetables, fruit, and proteins.

Table 39. Share of Each Meal Servings by Food Type

	<i>Breakfast</i> (n=1985.5)	<i>Lunch</i> (n=2058)	<i>Dinner</i> (n=2370)	<i>Morning snack</i> (n=265)	<i>Afternoon snack</i> (n=1252.25)	<i>After dinner snack</i> (n=731.25)	<i>All Meals</i> ^{†††} (n=8695)
Grains	37.0%	30.3%	32.0%	22.1%	24.3%	15.5%	29.9%
Proteins	9.3	18.5	21.1	11.7	10.7	6.5	14.8
Junk foods	11.9	6.4	3.8	26.2	24.4	32.5	12.3
Dairy	17.6	13.6	7.1	4.9	7.4	10.9	11.3
Fruit	12.3	8.4	5.0	12.6	9.9	5.3	8.5
Fruit juice	8.5	3.6	3.2	6.0	5.6	2.1	4.8
Whole fruit	3.8	4.8	1.9	6.6	4.3	3.2	3.6
Water	5.2	4.1	7.6	8.1	7.7	13.1	6.7
Vegetables	0.4	6.1	6.9	0.8	1.7	1.5	3.8
Pop/other non-fruit juice drinks	3.0	6.4	10.9	9.6	10.4	11.2	7.9
Other non-fruit juice drink	2.3	3.6	6.5	7.7	6.2	7.1	4.9
Pop	0.7	2.8	4.4	1.9	4.2	4.1	3.0
Fried food	2.2	2.5	3.4	2.3	1.9	2.2	2.6
Fats and oils	1.1	3.7	2.3	1.7	1.6	1.2	2.2
Total	100	100	100	100	100	100	100

Where Children are Eating

For each food item consumed, the children were asked to indicate where that food item originated from (not where it was consumed). The majority (56.5 percent) of all food servings originated from home, and a quarter (25.2 percent) of all food servings originated from the child’s out-of-school program (Table 40).

^{†††} Meal was not identified for 33 food servings, and so those servings are not included in the meal breakout, but are included in the All Meals column.

The oldest group of children was more likely than the other age groups to eat food originating from home or a fast food restaurant and less likely to have food from an out-of-school program or a friend or relative's home.

Table 40. Share of Food Consumed at Each Location by Age

	7 to 9 year olds (n=183)	10 to 13 year olds (n=193)	14 to 17 year olds (n=59)	All Ages ^{†††} (n=437)
Home	53.1%	58.4%	60.4%	56.5%
Out-of-school program	27.2	26.1	17.2	25.2
Fast food restaurant	4.6	4.5	12.5	5.8
Friend/relative's home	7.9	4.3	0.8	5.2
Store	3.1	3.2	7.2	3.8
Other restaurant	1.8	2.4	0.1	1.8
School	1.8	0.6	1.5	1.2
All Locations	100	100	100	100

Food Type

Table 41. Share of Each Food Type Servings by Location that Provided It

	Home (n=4915)	Out-of-school program (n=2190.75)	Fast food restaurant (n=502.5)	Friend/ relative's home (n=453.5)	Store (n=329.75)	Other restaurant (n=156)	School (n=106.5)	All Locations ^{§§§} (n=8695)
Grains	57.4%	26.3%	5.1%	5.0%	2.0%	2.3%	1.2%	100%
Proteins	56.9	20.6	9.3	7.0	2.2	2.5	0.9	100
Junk foods	51.4	22.3	4.6	6.0	13.7	0.9	0.9	100
Dairy	51.8	35.8	4.3	2.2	2.1	1.4	2.0	100
Fruit	53.1	36.7	2.1	3.5	1.4	0.8	2.0	100
Fruit juice	49.8	38.8	3	4.3	1.8	1.2	1.2	100
Whole fruit	57.6	34.0	0.9	2.4	0.8	0.3	3.2	100
Water	68.9	15.8	0.9	8.3	3.2	0.9	1.2	100
Vegetables	55.5	33.4	1.5	5.5	1.2	2.1	0.1	100
Pop/other non-fruit juice drinks	66.8	12.0	7.6	5.2	5.6	1.8	1.0	100
Other non-fruit juice drink	67.6	14.7	6.3	4.8	4.6	0.8	1.2	100
Pop	65.5	7.6	9.7	6.6	7.2	3.4	2.8	100
Fried food	44.8	10.6	33.3	3.8	3.8	2.7	0.5	100
Fats and oils	48.8	36.6	3.7	4.5	1.9	2.1	1.3	100
All Food Types	56.5	25.2	5.8	5.2	3.8	1.8	1.2	100

Home provided 56.5 percent of all food servings consumed, yet was disproportionately more likely to provide the following types of food (Table 41):

- Water (68.0 percent of all water consumed was provided by home)
- Pop/other non-fruit juice drinks (66.8 percent of these servings were provided by home)

^{†††} two children did not identify their age, so are not included in the age breakdown but are included in the All Ages column. Location was not identified for 41 food servings, and so these servings are not included in the location breakdown, but are including in the All Locations row.

^{§§§} Location was not identified for 41 servings of food, and so those servings are not included in the location breakout, but are included in the All Locations column.

Out-of-school programs provided 25.2 percent of all food servings consumed, yet were disproportionately more likely to provide the following types of food:

- Dairy (35.8 percent of all dairy servings were provided by the out-of-school program)
- Fruit (36.7 percent of these servings were provided by the out-of-school program)
- Vegetables (33.4 percent of these servings were provided by the out-of-school program)

The out-of-school program was also less likely to provide the following types of foods than other locations:

- Water (15.8 percent of all these servings came from the out-of-school program)
- Pop/other non-fruit juice drinks (6.3 percent of all these servings came from the out-of-school program)
- Fried foods (10.6 percent of all servings came from the out-of-school program)

Other notable findings include:

- While stores provided only 3.8 percent of all food servings consumed, 13.7 percent of all junk foods and 7.2 percent of all pop consumed came directly from stores.
- While only 5.8 percent of all food servings consumed came from fast food restaurants, a full third of all fried food servings consumed came from fast food restaurants.

Combined, 82 percent of all food servings consumed came from either home or the child's out-of-school program. Further investigation of fruit and vegetable consumption reveals that:

- 58.1 percent of the children in the sample did not consume any fruit from home.
- 57.2 percent did not consume any fruit from their out-of-school program.
 - 32.5 percent of all the children did not eat any fruit from home or their out-of-school program.
- 65.4 percent of the children did not eat any vegetables from home.
- 78.7 percent did not consume any vegetables from the out-of-school program.
 - 50.3 percent of the children did not eat any vegetables from home or their out-of-school program.

As a percent of overall food servings consumed from that particular location, food consumed at out-of-school programs was less likely to consist of proteins, junk foods, water, pop/other non-fruit juice drinks, and fried foods than home (Table 42). On the flip side, food consumed at the out-of-school program was more likely to consist of dairy, fruit, and vegetables than home. While a larger share of food servings consumed at the out-of-school program were fruit, 60.3 percent of those fruit servings were fruit juice, compared to 53.8 percent from home.

Table 42. Share of Servings at Selected Locations of each Food Type

	Home	Out-of-school program	All Locations
Grains	30.4%	31.3%	29.9%
Proteins	14.9	12.1	14.8
Junk foods	11.2	10.9	12.3
Dairy	10.4	16.1	11.3
Fruit	8.0	12.3	8.5
Fruit juice	4.3	7.4	4.8
Whole fruit	3.7	4.9	3.6
Water	8.2	4.2	6.7
Vegetables	3.8	5.1	3.8
Pop/other non-fruit juice drinks	9.3	3.8	7.9
Other non-fruit juice drink	5.8	2.9	4.9
Pop	3.5	0.9	3
Fried food	2	1.1	2.6
Fats and oils	1.9	3.1	2.2
All Food Types	100	100	100

Meals

Home was by far the primary provider of dinner food servings (78.7 of all these servings were provided by the home) and after dinner snacks (84.8 percent) (Table 43). Likewise most breakfast servings (63.9 percent) consumed were provided by home. The out-of-school program was responsible for providing most lunch servings (61.8 percent) and was also a significant provider of afternoon (25.6 percent) and morning snack servings (31.9 percent) as well as breakfast servings (23.9 percent).

Table 43. Share of Each Meal Servings by Location Providing the Food

	Breakfast (n=1985.5)	Lunch (n=2058)	Dinner (n=2370)	Morning snack (n=265)	Afternoon snack (n=1252.25)	After dinner snack (n=731.25)	All Meals**** (n=8695)
Home	63.9%	20.8%	78.7%	47.0%	48.3%	84.8%	56.5%
Out-of-school program	23.9	61.8	1.4	31.9	25.6	0.6	25.2
Fast food restaurant	5.5	6.2	6.8	6.6	4.6	4.2	5.8
Friend/relative's home	3.5	1.3	7.9	6.2	9.4	4.5	5.2
Other restaurant	0.4	3.4	2.9	0	0.8	0	1.8
Store	1.8	2	2.3	7.9	11	5.4	3.8
School	0.6	4.2	0.0	0.4	0.2	0.5	1.2
All Locations*	100	100	100	100	100	100	100

**** Location was not identified for 41 food servings and meal time was not identified for 33 servings, and so these servings are not included in the location or meal breakdown, but are included in the All Locations row and the All Meals column.



Recommendations for Using Child Nutrition Programming to Address Child Hunger

A number of areas where child nutrition programming in Cook County can be strengthened to address child hunger surfaced through this study. Below are a series of recommendations and objectives aimed at expanding programs to areas with the greatest unmet need (serving more children) and improving existing child-centered nutrition programs (serving children better).

Recommendation 1: Expand child nutrition programs to the times of year and geographies with the least program coverage.

Objective 1a: Enroll more Summer Food Service Program and Child and Adult Care Food Program sites in areas of greatest need.

Objective 1b: Target families at food pantries, schools, after-school programs, churches, libraries, and other community institutions to share information on child-centered programming near them to increase participation, specifically focusing on increasing awareness and participation in summer programs.

Recommendation 2: Increase the amount of meals and snacks offered through nutrition programs at out-of-school programs.

Objective 2a: Expand meal and snack offerings as allowed by current program rules.

Objective 2b: Advocate for additional meal reimbursement opportunities across child nutrition programs.

Recommendation 3: Enhance the nutritional quality of the meals children are most likely to get from out-of-school programs, namely breakfast, lunch, and morning and afternoon snacks.

Objective 3a: Exceed the minimum meal nutritional requirements mandated by federal funding by providing more whole fruits, vegetables, and proteins.

Objective 3b: Launch innovative new programming, and funding to support it, that can help improve the quality of food served at child nutrition programs while at the same time strengthen communities.

Objective 3c: Advocate for higher federal meal reimbursement rates to allow for the purchase of more healthy foods, which are often more costly.

Recommendation 4: Decrease the availability and consumption of competing, less healthy foods at school and in afterschool and summer programs.

Objective 4a: Discourage on-site competing sources of food such as vending machines or candy for sale in the office, and ban outside food from being consumed at the out-of-school program.

Recommendation 5: Extend program influence into the times of day, particularly evenings, when children are least likely to eat adequate, nutritious food.

Objective 5a: Create new funding opportunities for program add-ons, like take-home after-dinner snacks.

Objective 5b: Educate children and their parents/guardians about children's nutritional needs.

While this assessment and resulting recommendations focused specifically on child nutrition programming and children's experiences with food intake, children's food experiences cannot be disentangled from their family's ability to access and purchase high quality, nutritious food. Therefore, addressing poverty addresses food insecurity and is a key strategy in ending child hunger; any efforts to address child hunger through children's nutrition programming must be accompanied by broader efforts to increase family economic security and expand access to quality, nutritious food.

These recommendations are applicable to the work of a variety of providers and advocates in the child nutrition arena including food providers like the Greater Chicago Food Depository, child-centered programs that serve meals or snacks, local and federal policymakers, and funders.

Food providers looking to implement these recommendations and objectives should also look to institute metrics to measure progress. Doing so will help track the various components of progress as well as identify areas of particular challenge. Suggestions for such metrics are included in each objective below.

Expand Child Nutrition Programs to Areas of Greatest Unmet Need (Serving More Children)

The first recommendation aims to reach more children by program expansion in the least served areas and with outreach to families.

Recommendation 1: Expand child nutrition programs to the times of year and geographies with the least program coverage.

Objective 1a: Enroll more Summer Food Service Program and Child and Adult Care Food Program sites in areas of greatest need.

Metric 1a: Annually, re-analyze summer program coverage data against the most current need data to track progress in areas where expansion efforts have been targeted and to identify new or persisting areas of highest need.

Children are much less likely to be served by nutrition programs in the summer than in the school year due to the absence of school. The Summer Food Service Program, the Child and Adult Care Food Program, and the Seamless Summer Option together comprise the food programs available to children during the summer. Key areas of need (measured in terms of highest number of unserved children and worst program coverage) emerged in this analysis. The programs most amenable to expansion are the SFSP and the CACFP since sites do not have to be schools. Sponsoring agencies are particularly well-suited to recruit more sites since they already have in place the knowledge and infrastructure necessary to bring more sites on board.

Objective 1b: Target families at food pantries, schools, after-school programs, churches, libraries, and other community institutions to share information on child-centered programming near them to increase participation, specifically focusing on increasing awareness and participation in summer programs.

Metric 1b: Track number of sites and number of outreach materials distributed on a monthly basis. Implement annual parent and administrator surveys, and include questions to parents about how they learned about the program.

Parents visiting food pantries are obviously experiencing difficulty in affording food for their families. According to a study conducted by the University of Chicago-Harris School of Public Policy half of all parents of eligible but non-participating children were unaware of Summer Food Service Program (SFSP) sites in their area.⁹¹ Making sure that every parent who walks out the door of a food pantry in Cook County, particularly in areas identified as having the highest numbers of unserved children (see pages 31-52) receives information on child-centered programming near their homes would help reach and enroll children most at risk for food insecurity into existing programs. Likewise, targeting outreach efforts at community institutions lends a geographic relevancy to efforts to enroll more children.

Improve Existing Child Nutrition Programs (Serving Children Better)

The second set of recommendations is aimed at actions that can improve existing child nutrition programs to addresses areas of opportunity illuminated by this analysis.

Recommendation 2: Increase the amount of meals and snacks offered through nutrition programs at out-of-school programs.

Objective 2a: Expand meal and snack offerings as allowed by current program rules.

Metric 2a: Establish a baseline of meal and snack offerings at all sites. Track the number of annual meal and snack service additions at existing sites.

Food at the child nutrition program can fill in gaps for children that miss meals. Snacks play a very important role in filling in the gaps for children that miss meals. 61.5 percent of children that did not eat all three meals had an afternoon snack, 47.2 percent had an after dinner snack, and 20.5 percent had a morning snack. Programs serving just one meal should explore if another meal and/or snack can be worked into their hours of operation. For instance, adding a morning snack offering to a program that only serves lunch can help that 15 percent of children who missed breakfast. Sponsoring organizations can work with sites to assess their capacity to expand to other meals.

Objective 2b: Advocate for additional meal reimbursement opportunities across child nutrition programs.

Metric 2b: Document incremental additions in meal reimbursements as policies are changed.

Current program rules limit how many different types of meals can be reimbursed. For instance, SFSP sites can generally be reimbursed for two meals or one meal and one snack each day. The School Breakfast Program, National School Lunch Program, and the Afterschool Care Program together cover breakfast, lunch, and an afternoon snack, but adding a supper option can help extend program reach and ensure children who might not get food at home are well-fed. Reimbursing sites for additional meals and snacks will help fill in the gaps for children who miss meals and help reach more hungry children. The CACFP At-Risk After School Program (Illinois is one of 14 states piloting this program) provide a model for such expansion. There are opportunities for advocacy on this front as Child Nutrition Reauthorization Act discussions heat up.

Recommendation 3: Enhance the nutritional quality of the meals children are most likely to get from out-of-school programs, namely breakfast, lunch, and morning and afternoon snacks.

Objective 3a: Exceed the minimum meal nutritional requirements mandated by federal funding by providing more whole fruits, vegetables, and proteins. (See pages 20-24 for current nutritional guidelines for child nutrition programs)

Metric 3a: Establish a baseline of fruit, vegetables, and protein servings served on an average day at existing sites. Monthly, track servings on an average day at existing sites and report alongside meal nutritional guidelines. Implement annual parent and administrator surveys, and include questions on whether the program has increased children's consumption of fruit, vegetables, and proteins.

Children are more likely to get grains elsewhere, and they are consuming large amounts of fruit juice. By replacing fruit juice servings with whole fruit and adding even one more serving each of proteins and vegetables instead of a grain, many more children will fare far better on meeting the recommended daily allowance for the various food groups. Supplementing existing meal offerings with whole fruits and vegetables funded through a private source is an additional option for improving meal quality.

Leveraging Existing Resources and Going Local to Increase Healthy Food Offerings

Organizations have obtained food for their Summer Food Service Program (SFSP) in creative ways. One organization in Missouri made sure to use all possible commodity foods that they could get their hands on to include more fruits and vegetables in meals. In Arizona, a SFSP sponsoring organization purchased all of its produce locally and found the fruits and vegetables to be cheaper and of better quality. To incorporate more of the produce into each meal, they then provided a salad bar at the program – a tactic that has proven effective in significantly increasing kids’ fruit and vegetable consumption. Local farmers may not be quite as common in Cook County, but other nutrition programs like SNAP have already begun paving the way for partnerships with Cook County’s farmers markets.

Food Research & Action Center. (n.d.) Parks and rec. dept. finds creative uses for commodity food: City of Caruthersville Parks and Recreation Department, MO. FRAC Model Program. Washington, DC: Author.

Food Research & Action Center. (n.d.). School district purchases local produce for summer food program: Litchfield Elementary School District, AZ. FRAC Model Program. Washington, DC: Author.

Science Daily. (2007). Kids eat more fruits, vegetables when schools offer salad bar. Science News. Retrieved from <http://www.sciencedaily.com/releases/2007/12/071206161421.htm>

Experimental Station. (2009). 61st Street Farmers Market doubles LINK purchase value, thanks to Wholesome Wave Foundation. Retrieved from <http://www.experimentalstation.org/node/164>

Objective 3b: Launch innovative new programming, and funding to support it, that can help improve the quality of food served at child nutrition programs while at the same time strengthen communities.

Metric 3b: Establish a baseline of existing child nutrition program community partnerships. Annually, report on number of new partnerships and the impact of the new partnerships in terms of people benefiting (children in program, people involved with the partner organization), and food capacity/quality (number of fruit and vegetable servings added).

Partnerships with local farmers markets and community gardens, on-site gardening programs that equip children with nutritional knowledge through active learning and physical activity, partnerships with other community institutions such as teen job training programs, are just a few ways that Summer Food Service Program sites can go about improving the quality of the food they serve while promoting positive community outcomes.

Objective 3c: Advocate for higher federal meal reimbursement rates to allow for the purchase of more healthy foods, which are often more costly.

Metric 3b: Establish a baseline of federal reimbursement rates for all existing programs and track reimbursement rate changes alongside costs of producing the meal.

Higher federal reimbursement rates would give programs the ability to purchase more nutritious food, which is nearly always more expensive. Advocacy efforts around this issue are particularly timely with the Child Nutrition and WIC Reauthorization Act up for reauthorization.

Recommendation 4: Decrease the availability and consumption of competing, less healthy foods at school and in afterschool and summer programs.

Objective 4a: Discourage on-site competing sources of food such as vending machines or candy for sale in the office, and ban outside food from being consumed at the out-of-school program.

Metric 4a: Implement annual parent and administrator surveys, and include questions to administrators on other foods being served outside the nutrition program, policies around outside food being taken in by the children, and the prevalence of other onsite competing options (such as vending machines).

22.3 percent of all junk food children ate was consumed at the out-of-school program. With the meal nutritional requirements that Summer Food Service Program sites must meet, it appears that many children are getting additional non-healthy food at their programs outside of SFSP meal offerings or bringing it in from other places. Decreasing the availability of food that is of little to no nutritious value will make the healthier options the only options. Sponsoring organizations can provide incentives to sites to only serve food through the nutrition program or to change their non-nutrition program food, including vending machines, to more healthy offerings. Alternately, sponsoring organizations can institute competitive food restrictions as part of their agreements with sites. On a systems level, advocacy efforts can focus on program rule changes that codify a competitive food ban in nutrition programs for children.

Changing Policy May Help Legitimize Competitive Food Bans

The Child Nutrition Promotion and School Lunch Protection Act of 2009 was introduced to the House of Representatives March 5, 2009, and the Senate April 30, 2009 (H.R.1324 and S 934). The Act, which now sits in committee, would amend the Child Nutrition Act of 1966, which is currently up for reauthorization. As the policy is now, there are only regulations on competitive foods sold in school lunch rooms during lunch hours. The Child Nutrition Promotion and School Lunch Protection Act of 2009 would update nutrition standards for all food and beverages sold outside of school meals. This would include vending machines, snack bars, and cafeteria a la carte items. The Act would also update the nutritional standards themselves, to be more in line with modern nutritional science, taking into consideration the nutritional and health issues facing today's youth.

OpenCongress.org. S.934 – Child Nutrition Promotion and School Lunch Protection Act of 2009. Retrieved from <http://www.opencongress.org/bill/111-s934/text>

Recommendation 5: Extend program influence into the times of day, particularly evenings, when children are least likely to eat adequate nutritious food.

Objective 5a: Create new funding opportunities for program add-ons, like take-home after-dinner snacks.

Metric 5a: Track money raised, programs implemented, meals/snacks distributed, and children reached by site on a monthly basis.

After-dinner snacks were the most likely to be of little nutritional value, and sending home healthy snacks could replace servings of non-nutritious food with nutritious food. During the school year the Greater Chicago Food Depository operates the Nourish for Knowledge program which provides bags full of nutritious food for children to take home on the weekend. A summer version of this program for evenings and/or weekends could be explored including private funding support since SFSP and other federal nutrition programs require congregate meal settings for reimbursement.

Objective 5b: Educate children and their parents/guardians about children's nutritional needs.

Metric 5b: Track number of nutrition educational materials distributed, estimate number of families and children reached. For programming, implement simple pre- and post-knowledge tests. Implement annual parent and administrator surveys, and include questions to parents who participated in a nutritional education program about behavior change as a result of the programming and content they would like to see in future educational programs.

Though the out-of-school program plays a central role in the nutritional lives of children, home provides over half of all food servings consumed. With such a large share of all food consumed originating from the home, it is an obvious point of intervention in efforts to improve the nutritional value of foods children consume. Sponsoring organizations and out-of-school programs might consider regular nutritional fact sheets, send home recipe cards with nutritious recipes and food preparation tips, occasional seminars, taste-testing days for families, and other innovative practices that get parents more involved and interested in what their children are eating. While many child nutrition programs do have nutritional education components for children, such efforts should be evaluated for effectiveness and recalibrated for maximum impact.

Linking Nutritional Education to Other Positive Activities Can Reach More Kids in Need

Innovative partnerships have been established in programs across the country to improve children's nutrition. Summer Food Service Programs have teamed up with local libraries' summer reading programs to attract children to utilize multiple services in Arizona and Kentucky. A Bookmobile provided both books and lunches to hard-to-reach youth in need. Service providers used the opportunity to teach nutrition lessons while kids ate lunch on-site.

Food Research & Action Center. (n.d.). Bookmobile and nutrition classes attract children to summer food: Pulaski County Schools, KY. FRAC Model Program. Washington, DC: Author.

Food Research & Action Center. (n.d.). Creative community partnerships expand summer feeding: Yuma Union High School, AZ. FRAC Model Program. Washington, DC: Author.



Conclusion

Meeting President Obama's goal of ending child hunger by 2015 will require efforts on a variety of fronts, including broader approaches that address family economic security and access to food. A relatively quick and efficient way to take action toward meeting the goal is to invest in and improve existing child nutrition programs, with their established infrastructure and stakeholders. The 2004 Child Nutrition and WIC Reauthorization Act, which includes many programs for children, is currently up for reauthorization, providing a timely opportunity to build upon existing programming and improve service provision to children who may be at risk of hunger or food insecurity.

To that end, this study identified Chicago community areas and Cook County municipalities that are most in need of child nutrition program investments, and key areas where current child nutrition programs can be strengthened to reduce food insecurity and enhance the nutritional lives of school-age children. The findings can help organizations like the Greater Chicago Food Depository make sound programmatic and expansion decisions that will best meet the nutritional and hunger needs of Cook County's most vulnerable children.

Though the current economic and policy environment may seem a challenging one in which to advocate for program expansions, the hardships faced daily by low-income families struggling to feed their children command timely attention and action. The physical, mental/emotional, and cognitive outcomes for children experiencing hunger and food insecurity underscore the importance of addressing childhood hunger to improve the life chances of children. If left unaddressed, the effects of growing child hunger will have a devastating effect on the health and development of millions of children, compromise families' ability to get ahead, and erode the stability of entire communities.

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