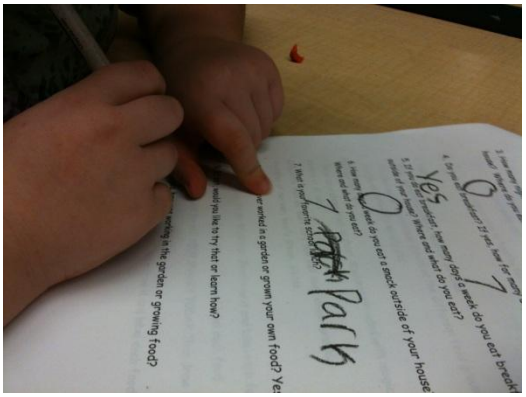
“All I Eat is Steak and Vegetables!”

A Morningside Food and Agriculture Study



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Environmental Planning 302
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Acknowledgements:

We would be at a great loss if it was not for the guidance and critiques of Professor Sarah Gardner and the rest of our ENVI 302: Environmental Planning Workshop class. Additionally we would like to thank Mr. Brent A. Wasser from the Williams College Zilkha Center for provided critical feedback during our final stages.

Lastly, we are forever grateful for the residents of Morningside for opening up their homes and allowing us to engage with their community. It was so inspiring to work with so many different people who were dedicated to improving their environment. We thank the children and teachers who helped us and filled out our surveys and some even provided us with delicious snacks. Thank you.

Pittsfield students who offered us some delicious carrot-raisin bran muffins!

Table of Contents

Introduction

Project Scope:

To survey and study food consumption habits of children at Morningside Community School in Pittsfield, Massachusetts, and to provide recommendations for the implementation of a greenhouse and community garden teaching site to improve food security and fresh food availability in Morningside, Pittsfield.

Co-Clients:

Anthony Barnaba, *Arch AIA* is the principal architect of Blueline Design Inc. He specializes in creative restoration of historic buildings for innovative and environmental purposes. The firm resides on the project site at 146 First Street, Pittsfield, Massachusetts.

Kim McMann is the Director of Planning at the Berkshire Community Action Council (BCAC). She has worked on community building in Morningside neighborhood and has serves as the interface between Morningside Community School and Blueline Design Inc.

Pittsfield History:

The city of Pittsfield was incorporated in 1891, at the same time that the Electric Manufacturing Company moved to Pittsfield, which in 1903 became General Electric (GE). In accordance with GE's success, Pittsfield's population grew to 50,000 by 1930. Though GE's workforce once topped 13,000, it was reduced to less than 700 with the relocation of its transformer and aerospace portions. In 1960, the population peaked at 57,879. In 2007, the last GE presence left Pittsfield, bought out by Sabic Industries, one of the world's

leading manufacturers of chemicals, fertilizers, plastics, and metals. Currently, the Pittsfield population sits at around 44,700.

Site History- 146 First Street:

In 1915, the Eagles Club built a chapter (Aerie #358) on 146 First Street in Pittsfield. After the chapter's closing, the Elizabeth Freeman Center, which provides shelter for victims of domestic violence and sexual assault, took over the building until 2005. The building was then left vacant until 2008 when our client, Anthony Barnaba, moved there with his architectural practice, Blueline Design Inc., with financing from Mass Development. Blueline Design Inc.'s architectural work often involves the adaptive reuse of historic buildings and landscapes. Barnaba concisely describes the changing story of this building's position within the city: "While in its prime the club served a solid blue class neighborhood, as it stands today it is a run-down neighborhood on the urban edge, with the drugs, poverty, crime, and all that goes with it."

The building at the street has three stories of brick and limestone with two small storefronts on the ground floor. Barnaba has redeveloped part of the second floor as design offices for his firm. The third floor was a small gymnasium, which is currently undeveloped space. The back of the building is one story and holds 8 abandoned bowling lanes at the ground level. Beneath the ground level sits a full room of undeveloped space, originally used as a bar and dance hall.

Barnaba's original building plan was to develop the second and third floors as flexible/shared office space for what he calls "creative types" such as graphic designers, commercial artists, and other architects. He planned to demolish the bowling lanes to make way for parking. However, due to the recession and consequent abundance of inexpensive office space in downtown Pittsfield, Barnaba discontinued the plan and the bowling lanes have not yet been demolished.

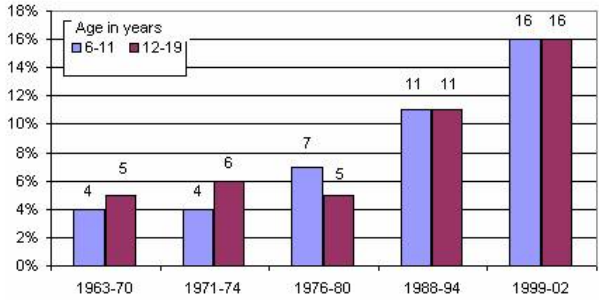
Barnaba now plans to develop the back and lower portion of the building into a double story aquaponic greenhouse, an "architectural model of urban agriculture." He imagines this design as a "testing grounds for developing integrated systems incorporating various combinations of plants, fish, passive solar and photovoltaics." Anthony argues that Pittsfield, "a small run down post-industrial city, with a fragmented urban pattern" is the perfect place for this type of development: "the city is at a unique time in its own history, and history itself, where under the right circumstances it offers a number of opportunities to create models of learning and teaching, that will be required to rebuild local economies

for the future." Though he is still unsure who will be the tenant of the greenhouse, he imagines the primary users will be "institutional partners with an interest in teaching model practices around sustainable food production." He imagines various types people will work the greenhouse: "college level interns of various disciplines, directors of large food programs, and regional farmers to allow them to successfully develop and incorporate niche food crops on their respective farms."

Problem Identification and Scoping:

Lack of complete and nutritious meals causes various health effects in children. In the United States, rates of obesity and overweight youth have risen strikingly over the past several decades. This trend has resulted in one third of all children ages 6-11 classified as overweight or obese (Cannuscio and Glanz 2011). The rate began to increase significantly in the 1980s, and it is only growing. Current percentages of overweight children are the same for ages 6-11 and 12-19. Children are becoming more overweight earlier in life. (Figure 1, CDC/NCHS, NHES and NHANES).

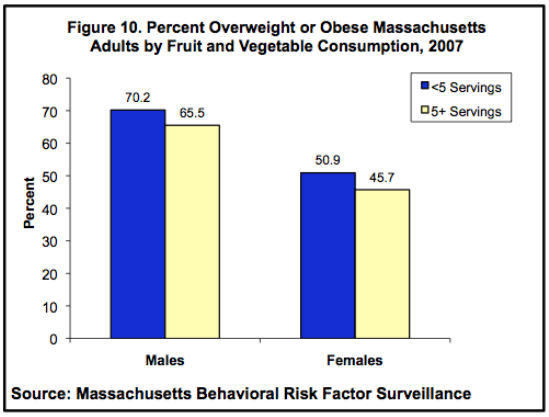
Figure 1. Prevalence of overweight among children and adolescents ages 6-19 years



NOTE: Excludes pregnant women starting with 1971-74. Pregnancy status not available for 1963-65 and 1966-70. Data for 1963-65 are for children 6-11 years of age; data for 1966-70 are for adolescents 12-17 years of age, not 12-19 years.

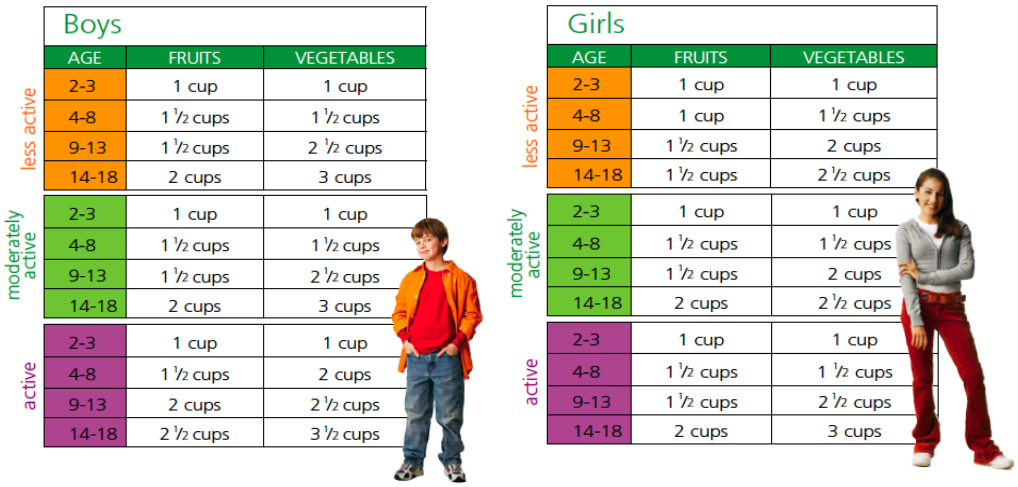
SOURCE: CDC/NCHS, NHES and NHANES.

While obesity is caused by a number of different factors, in Massachusetts consumption of fresh fruits and vegetables decreases an individual's likelihood of becoming overweight or obese (Figure 10).



USDA and AMA Recommendations

It has been well documented that Americans do not eat enough healthy foods. For a 2000-calorie diet, the USDA recommends that a person eat 2 cups of fruit, 2.5 cups of vegetables, 6 ounces of grain, 5.5 ounces of protein, 3 cups of dairy, and 27 grams of oil per day (USDA, 2011). The Center for Disease Control recommends that boys and girls received around 2-3 cups of fruits and vegetables per day (see Figure 2 below).



Boys

	AGE	FRUITS	VEGETABLES
less active	2-3	1 cup	1 cup
	4-8	1 ½ cups	1 ½ cups
	9-13	1 ½ cups	2 ½ cups
	14-18	2 cups	3 cups
moderately active	2-3	1 cup	1 cup
	4-8	1 ½ cups	1 ½ cups
	9-13	1 ½ cups	2 ½ cups
	14-18	2 cups	3 cups
active	2-3	1 cup	1 cup
	4-8	1 ½ cups	2 cups
	9-13	2 cups	2 ½ cups
	14-18	2 ½ cups	3 ½ cups

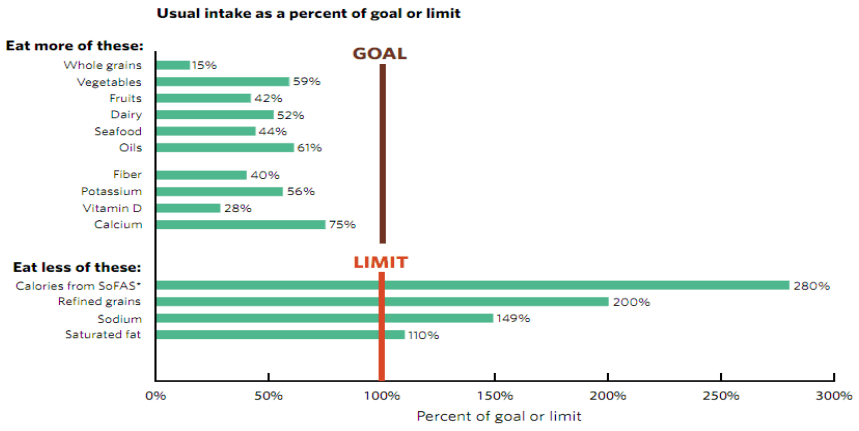
Girls

	AGE	FRUITS	VEGETABLES
less active	2-3	1 cup	1 cup
	4-8	1 cup	1 ½ cups
	9-13	1 ½ cups	2 cups
	14-18	1 ½ cups	2 ½ cups
moderately active	2-3	1 cup	1 cup
	4-8	1 ½ cups	1 ½ cups
	9-13	1 ½ cups	2 cups
	14-18	2 cups	2 ½ cups
active	2-3	1 cup	1 cup
	4-8	1 ½ cups	1 ½ cups
	9-13	1 ½ cups	2 ½ cups
	14-18	2 cups	3 cups

Figure 2: Center for Disease Control Recommendations for Youth

Most Americans do not meet any of the recommendations set by the USDA and the Center for Disease Control. In fact, Americans in most cases do not even eat half of the recommended daily amounts of nutrients. This is directly related to the fact that American food consumption exceeds the recommended limits on fatty foods. Figure 5-1 below shows that Americans eat 280% of the recommended limit of SoFAS: solid fats and added sugar (USDA dietary guidelines, 2011). The reason that Americans do not reach the recommended levels of potassium, fiber, vitamin D, and calcium is because they not eating nutrient dense foods like fruit, vegetables, low-fat dairy products, and lean meats. These foods are able to provide all of the nutrients people need without providing extra calories. Therefore, as one of three meals in the average child's daily diet, school lunch must provide foods that are nutrient-dense.

FIGURE 5-1. How Do Typical American Diets Compare to Recommended Intake Levels or Limits?



*SoFAS = solid fats and added sugars.
Note: Bars show average intakes for all individuals (ages 1 or 2 years or older, depending on the data source) as a percent of the recommended intake level or limit. Recommended intakes for food groups and limits for refined grains and solid fats and added sugars are based on amounts in the USDA 2000-calorie food pattern. Recommended intakes for fiber, potassium, vitamin D, and calcium are based on the highest AI or RDA for ages 14 to 70 years. Limits for sodium are based on the UL and for saturated fat on 10% of calories. The protein foods group is not shown here because, on average, intake is close to recommended levels.

Based on data from: U.S. Department of Agriculture, Agricultural Research Service and U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. What We Eat in America, NHANES 2001–2004 or 2005–2006.

Pittsfield Specific Demographics

In the past decade, rates of overweight individuals in Western Massachusetts have increased by an alarming 26% (MassCHIP 1995-2005).

Pittsfield shows higher rates of obesity than the State average. There are almost as many first-grade students suffering from obesity as seventh grade students. In both Pittsfield and the State as a whole, male children are more likely to be obese than their female peers.

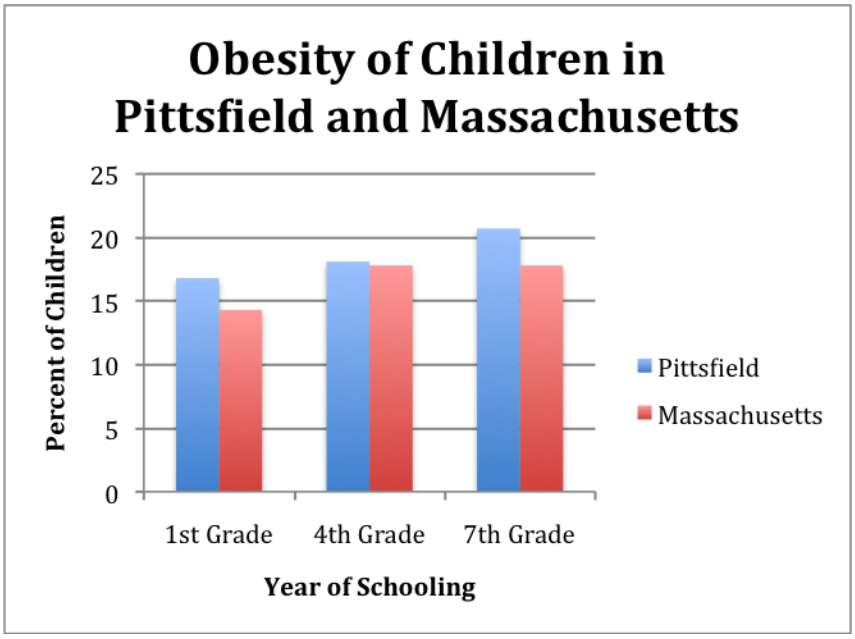


Figure 3: Obesity of Children in Pittsfield and Massachusetts: MassCHIP 2011

These patterns also apply to percentages of children who are overweight, with one exception. Percent of overweight children drastically increases in both Pittsfield and the State between first and fourth grade (MassCHIP ESH 2011). Thus, these age groups are key targets for interventions to prevent weight issues later in life.

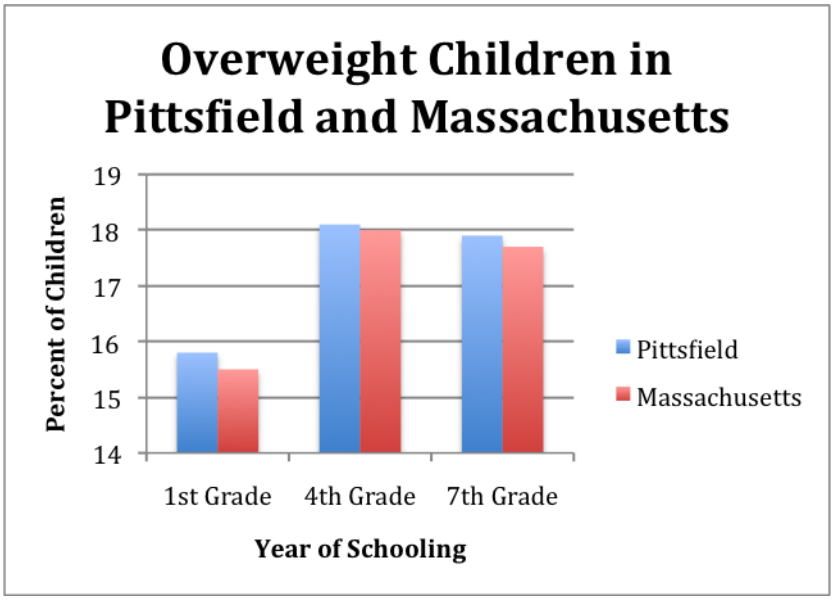


Figure 4: Overweight Children in Pittsfield and Massachusetts: MassCHIP 2011

Interestingly, though Pittsfield has significantly higher rates than the rest of the State in childhood obesity rates, there is no significant difference with regards to adult obesity. Pittsfield and the State of Massachusetts both have a 23% rate of obesity, compared to the National average of 25% (University of Wisconsin 2011). This could point to a difference in adult and childhood fitness and eating patterns, or it could indicate that obesity in Pittsfield is a new problem, manifested first in children. If the latter is the case, adult obesity rates should increase when these children reach adulthood. Either way, it is clear that focusing on children is key.

Furthermore, childhood obesity has a number of social, economic, and health effects on youth. Health effects include early-onset type 2 diabetes, musculoskeletal problems, heart disease, stroke, gastrointestinal problems, asthma, hypertension, and risk for colon cancer, among many others (CDC 2011). Pittsfield has a higher number of hospital discharges due to type 2 diabetes (240.9) than either Western Massachusetts as a whole (151.4) or the

state (132.5) overall (MassCHIPS 2003 to 2005). This health risks are especially detrimental to children.

While childhood malnutrition normally conjures up images of emaciated children in developing countries, childhood obesity is often a sign of childhood malnutrition as well (Davis, 2009). These children consume "empty" calories, and receive most of their energy input from fats and sugars. The do not receive the necessary levels of nutrients that come with a healthy diet. Being overweight or obese also comes with numerous social ramifications. Beyond the health effects, obesity can affect an individual's ability to get a job, and can affect a child's self-image during a vulnerable part of his or her life (Neighmond 2010).

Finally, food availability is not equally distributed. Certain areas, called food deserts, lack access to fresh food. When lower income neighborhoods contain or are contained in food deserts, residents are often trapped, with no car to drive out of the desert for fresh produce. Food swamps are a designated variant on food deserts. In food swamps, there is ample access to fast food, but no available healthy food options. Fresh food availability and obesity put a burden on ethnic minorities and families living below the poverty line. As expanded upon later in this report, Morningside is a food swamp.

Demographics:

Morningside has a reputation for being a troubled neighborhood with high drug use and a high crime rate. The Morningside Action Committee was established in 2006 to try and

turn the neighborhood around and improve the residents' quality of life. Some of the goals they established were to improve neighborhood walkability, lighting around the elementary school and Fenn and Tyler Street, and housing, by replacing broken down homes with mixed income housing (Morningside Initiative Steering Committee, 2006). Before they started these initiatives, the Morningside Action Committee wanted to establish a baseline, and they did so by using 2000 census data to compare Morningside to the rest of Pittsfield. They found that Morningside was economically disadvantaged compared to the rest of Pittsfield. Morningside has nearly twice as many renters as Pittsfield: only 32% of residents own their homes, compared to 61% in Pittsfield (Morningside Initiative Steering Committee, 2006). The poverty rate is also more than twice as high as the rest of Pittsfield, with a quarter of the population of Morningside below the poverty line (Morningside Initiative Steering Committee, 2006). The Morningside median household income is significantly lower than that of the rest of Pittsfield: while Morningside residents earn an average of $23,734, Pittsfield residents earn an average of $35,655 (Morningside Initiative Steering Committee, 2006).

2000 Census Data

	Pittsfield	Morningside
Population	45,793	6,958
Percent Owner Occupancy	61%	32%
Median Household Income	$35,655	$23,734
% Persons Below Poverty Level	11%	25%
Median Gross Rent	$503	$485
% Paying 35+% of Income for Rent	29%	31%
Median Value of Owner Occupied Housing (est)	$100,800	$75,000
Percent Non-White or Hispanic	7%	30%
Single Parent Families	41%	68%
Percent Moved to Pittsfield in last 5 years	16%	23%
Percent Families with No Workers in Household	18%	20%

These statistics place Morningside in perspective with Pittsfield, but it is important to compare Morningside to other areas, so those who are unfamiliar with Pittsfield can get an idea of the conditions in Morningside. Unfortunately there is not detailed data on Morningside from the 2010 census. In Table 2, Pittsfield demographics are compared to those of Berkshire County, Massachusetts, and the United States. While Morningside cannot be compared directly to the other regions, we can imply Morningside's comparison to the other regions because of the direct comparison between Morningside and Pittsfield in Table 1, which shows Morningside as economically disadvantaged compared to

Pittsfield. Compared to these other regions Pittsfield had the highest poverty rate, unemployment, and single-parent families; and the lowest median household income and owner-occupied houses (US Census Bureau, 2010).

2010 Census Data

	Pittsfield	Berkshire County	Massachusetts	US
Population	44,737	131,319	6,547,629	309 Million
Non-White Population	11.7%	7.5%	19.6%	27.6%
Single Parent Families	11.7%	9.1%	8.6%	9.6%
Owner-Occupied House	60.4%	67.3%	62.3%	65.1%
Unemployment	9.6%	8.6%	8.3%	9%
Median Household Income	$41,297	$46,555	$63,961	$51,222
Families below Poverty in Last 12 Months	11.7%	8.2%	7.5%	10.5%
All people below Poverty in Last 12 Months	16.2%	11.9%	10.8%	14.4%

While it is difficult to compare Morningside directly to larger areas because it lacks updated information, Figures 5, 6, and 7 use Morningside data from 2000 and compare it to 2010 of Pittsfield, Berkshire County, Massachusetts, and the United States. Figure 5 compares the Median Household Incomes of these five areas, displaying Morningside's having as significantly lower. For Graph 5-I converted 2000 dollars into 2010 dollars using an inflation calculator that stated the inflation rate from 2000 to 2010 was 26.6%, making the $23,734 value in 2000 into $30,054 in 2010 (Gardner, 2009).

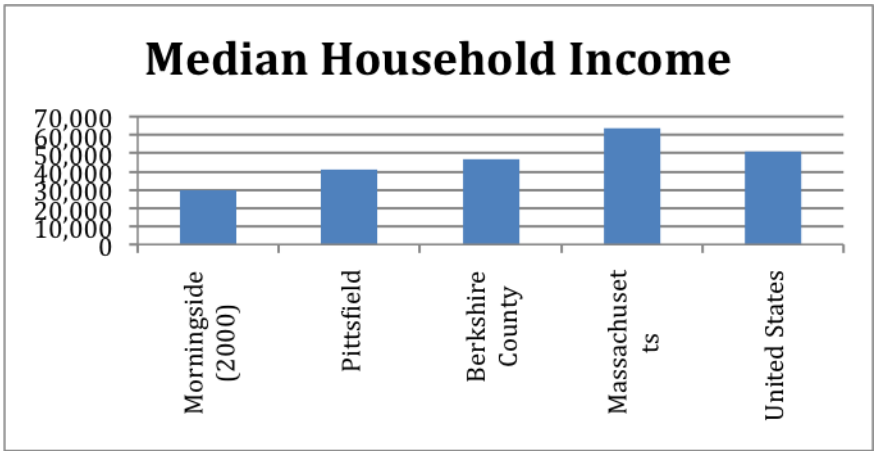


Figure 5: Median Household Income: 2010 Census (except Morningside data, from 2000)

Figure 6 depicts the percentage of people that own their homes. Pittsfield, Massachusetts, and the United States all have an owner occupancy percentage just above 60%, whereas Morningside is half of that at 32%. The potential problem associated with low owner occupancy is that residents who do not own their homes may feel less invested in the neighborhood. Low owner occupancy can result in less upkeep of property, which can cause surrounding home prices to decline. If Mr. Barnaba's building and garden could serve as a community hub, it could promote a sense of community and ownership for those who need it.

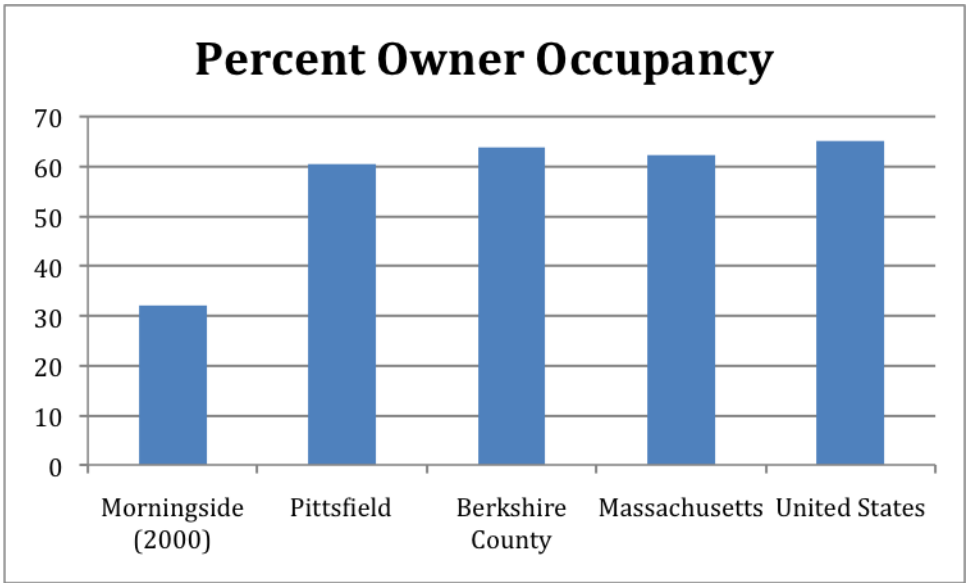


Figure 6: Percent Owner Occupancy: 2010 Census (except Morningside data, from 2000)

Figure 7 illustrates the percentage of people living below the poverty level; the rate in Morningside is significantly higher than the county and state. In Pittsfield, 16.2% of the population 25% below the poverty line, whereas the statewide poverty rate is 10.4%. Poverty can negatively influence diet and is correlated with a higher likelihood of obesity.

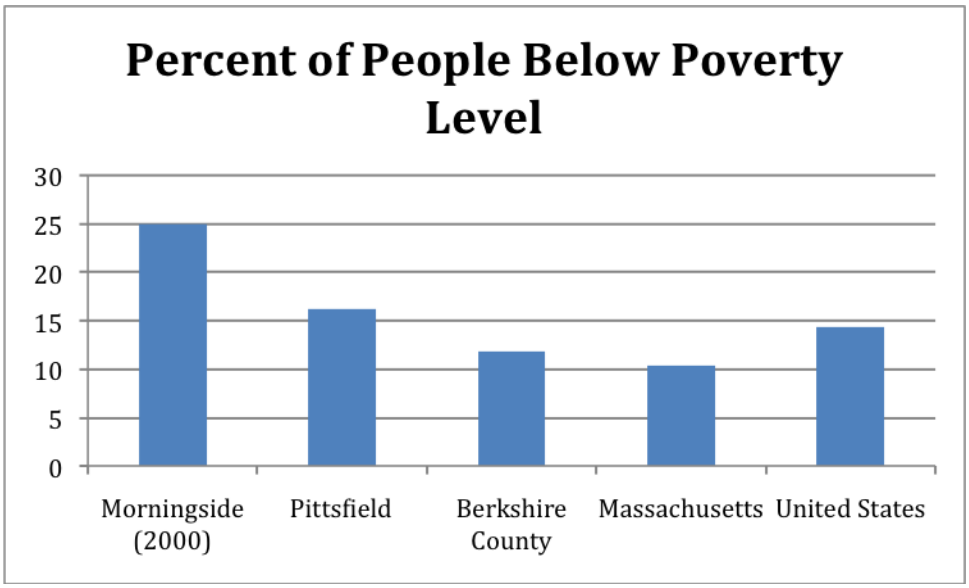


Figure 7: Percent of People Below the Poverty Line: 2010 Census (except Morningside data, from 2000)

These three measurements were chosen because they reflect the economic health of an area, and because the information from the different data sets overlapped well.

The socio-economic status of Morningside is important because it is considered a legitimate indicator of health. One reason is because low-income families do not have a lot of money to spend on food; therefore they try and find affordable food, which is often unhealthy. Also, in single parent families, (68% of families are single parent households in Morningside according to the 2000 U.S. Census), the parent often has less time to cook for their family and as a result there may be very few home cooked meals, which are normally healthier than meals outside the home.

Site Description:

The Morningside neighborhood has three boundaries: Tyler Street to the north, First Street to the West, and Fourth Street to the south. The industrial complex, SABIC-Plastics Industries, marks the eastern border.

Currently, the Morningside neighborhood has thirty-one stores where food can be purchased. Half of these stores are on Tyler Street. The rest reside along the southern border of Morningside, on the east and west corners. Thus the neighborhood's food stores and restaurants are on the periphery of the community and they encircle the residential and educational zones. There are wide arrays of food stores; however the most common are pizzerias (there are three on Tyler Street). There are also sandwich shops, various types of ethnic cuisine, and fast food restaurants. The thirty-three food stores can be categorizes such follow as: gas stations, fast food restaurants, bars/taverns, take-out, and sit-in restaurants. The majority of food stores are take-out (about 29%). 22% are sit-in

restaurants and 19% are fast food restaurants. From Figure 8, it is important to notice that from all the different types of food establishments, only one is an actual food market in which people can buy uncooked food. The store, Foot-Steps, is a special niche store that offers Caribbean and African goods that cannot be found at a conventional American supermarket.

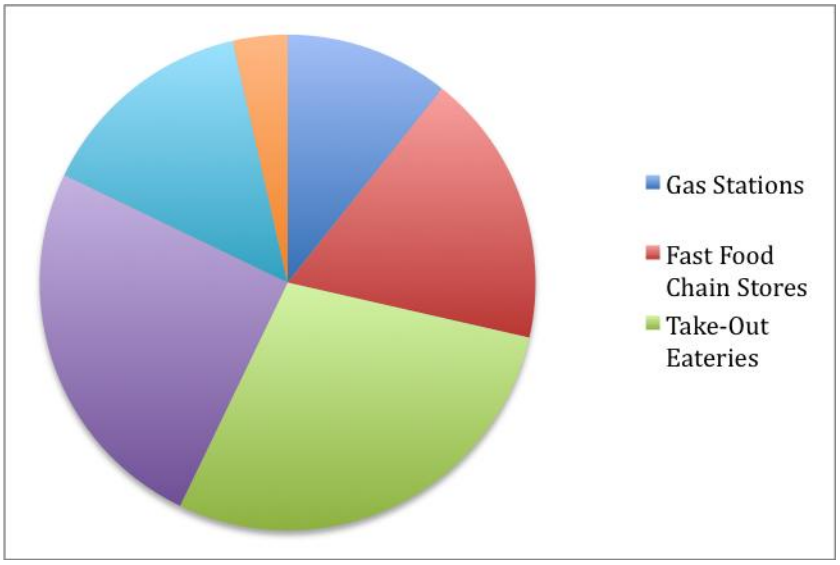


Figure 8: Food Store Types of Morningside

Tyler Street has only one fast food chain store (not including the Hess and Shell gas station). Tyler Street is one block away from the Morningside Community School and it provides a direct connection between downtown Pittsfield and Route 8. Most of the fast food establishments border the southern part of Morningside and have little pedestrian traffic despite being extremely close to the heart of downtown Pittsfield. The establishments along the southwest part of Morningside and on the western edge of Fenn Street usually serve the adjacent downtown business district.

While their close proximity would make them possible to walk to and from, the streets these restaurants line have high-speed traffic. The speed limit for these roads is thirty to forty miles per hour. These areas are not ideal for school-age children, senior citizens, or cyclists. Thus, for any resident or visitor, it would be recommended to travel by car for safety. Additionally, Tyler Street, and Morningside in general, lack public space or public amenities (i.e. Benches, trash cans, wide sidewalks) that would encourage residents to congregate and increase the social and economic activity of neighborhood. Walking to a grocery store is a greater challenge. The intersection at East Street, Fourth Street, and Elm Street, for instance, does not provide a clear and definite crosswalk for most pedestrians, let alone those who are disabled, young, or senior citizens. Therefore, walking to Harry's Supermarket, which is only 0.1 miles away from the intersection on Elm Street, is unfeasible, especially if for shoppers purchasing large amounts of groceries.

Figure 10: The intersection of Elm Street, Fourth Street, and East Street looking east.

Despite the high-density of food stores, there is no supermarket within the neighborhood. If residents want to purchase uncooked food products, they have to travel outside of Morningside. For example, one of the Harry's Supermarket is approximately a mile away and the other chain of supermarkets such as Super Stop & Shop and Price Chopper are about three and two miles away respectively (Refer to Figure 9). Many would deem Morningside a "food swamp" due to the high concentration of fast food and the shortage of fresh produce. Morningside families and children have low access to fresh vegetables and fruits solely because there are no markets within walking distance to the highly-dense residential neighborhood.

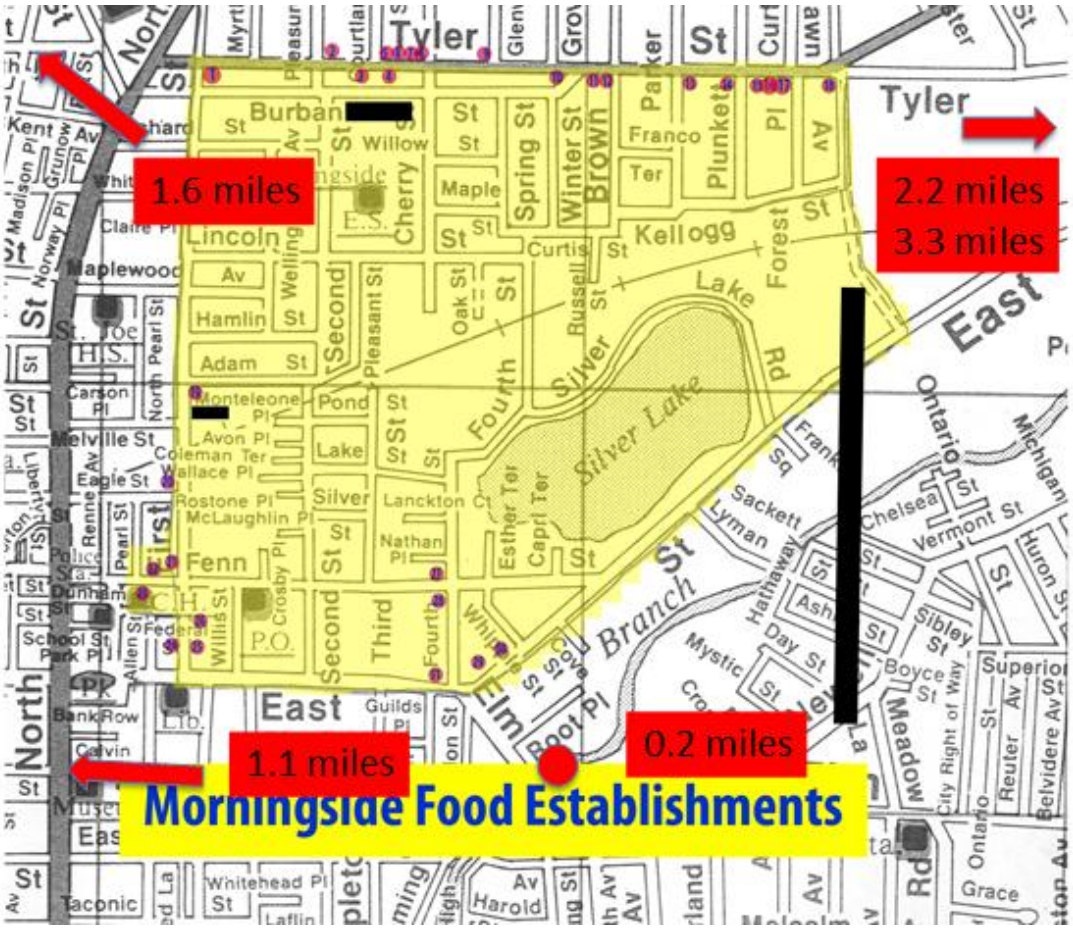


Figure 9: A food-related business maps of Morningside in 2011. Morningside entails the yellow-highlighted area. The pink dots indicate a location of a food establishment and the red captions indicate the closest grocery stores. The black rectangle on Burbank Street is the location of the Morningside Community School and the other small black rectangle on First Street between Adam Street and Melville Street is the site of the proposed greenhouse and Blueline Designs Inc. The long black bar to the right of Morningside is a scale of 0.5 miles.

Student Survey Methodology and Results:

Survey Methodology:

We administered over seventy surveys in four locations: the Morningside Community School, Silvio O. Conte Community school in Westside, the Juvenile Resource Center that is adjacent to the school property, and children involved in the faith-based group Morningside Latino Community group. The first two groups surveyed children within the same age range, from grades kindergarten to fifth grade (ages five to ten). The surveys from the Juvenile resource center were compiled from high-school aged students and the children at the Latino Community Group were mostly between ages eight and ten, with a couple outside that range.

To survey children about what specific food they ate, we used two methods. The first approach was illustrative while the other was textual. We gave each child four paper plates: one labeled "B" for breakfast, one labeled "L" for lunch, one labeled "D" for dinner, and one labeled "S" for snacks. With markers and or crayons, we had the children draw what they had eaten at the most recent meal for each respective plate. This method was mostly used for younger age children with lower reading comprehension levels (this was found to be the case for children below the second grade). Additionally, this method was more enjoyable and feasible for the children. The second method was to fill out a table with the amount of specific food groups that had been eaten at the most recent meals. For instance if a children had chicken, spinach, and rice for dinner they would check the box for those specific food types (i.e. protein, vegetables, and starch respectively). Because some

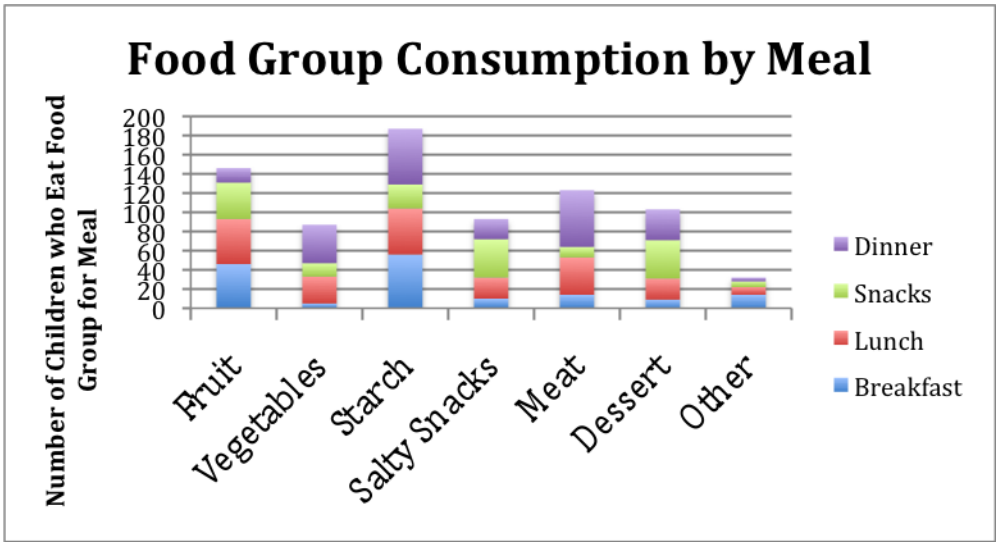
meals can be ambiguous when identifying what specific food type it is (i.e. pizza with a topping or a cold-cut sandwich) we allotted space for kids to check a group called "other" when they would specifically write the name of the food they had. This survey was primarily for children with higher levels of reading and table comprehension, which mostly were children higher than second grade.

In addition to learning the specific things they eat, we asked a set of questions about where they eat (whether outside or inside the house) and how often. Another aspect of the survey asked if the children had experienced working in a garden and if they were interested in it. As with the previous survey, these questions were administered to the children with a foundational reading level and some of the surveys were read to the children by the survey proctors (i.e. teacher assistants, after school assistants, tutors). Specifically, questions about breakfast and dinner were asked because most of the children ate lunch offered by the school. Finding interest and experience in community gardens or greenhouses was important to see if the children would be excited about implementing seeing happen in their community.

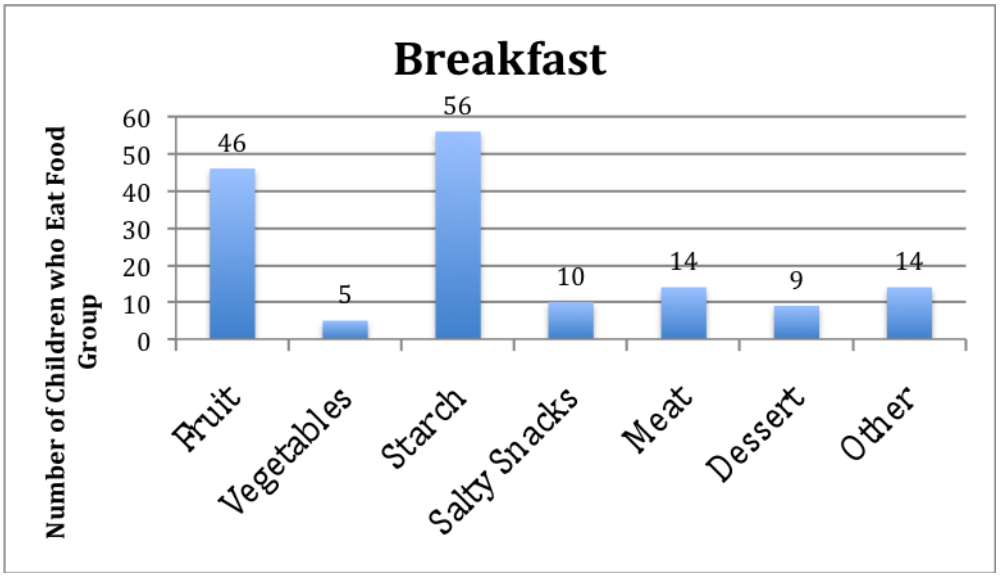
Results- Total Sample Group:

Data collected on children's food consumption indicates that children eat the most vegetables during dinner. Despite the necessary provision of vegetables as part of the school lunch program, only 28 out of 70 children reported eating vegetables during lunch. With the exception of snack, starch was the most common food group eaten by children during each meal (as many children at meat as starch for dinner). For snack, the most

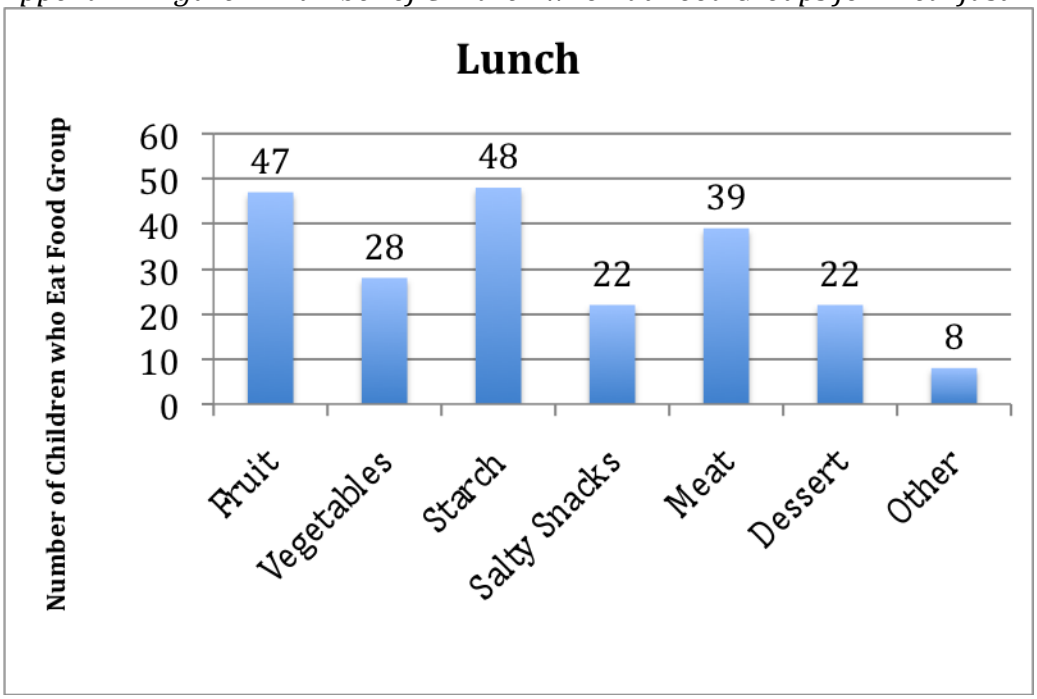
common food group consumed was salty snacks and dessert, both with 40 out of 70 children having consumed this food. Fruit consumption for both breakfast and lunch is relatively high. 46 and 47 out of 70 children reported eating fruit for breakfast and lunch respectively. While 38 out of 70 children report eating fruit for snack, children mentioned Kellogg's Fruit Snacks as a popular item. These gummies contain high amounts of corn syrup and gelatin, and low amounts of actual fruit. We can assume significantly fewer children actually eat fruit than reported.



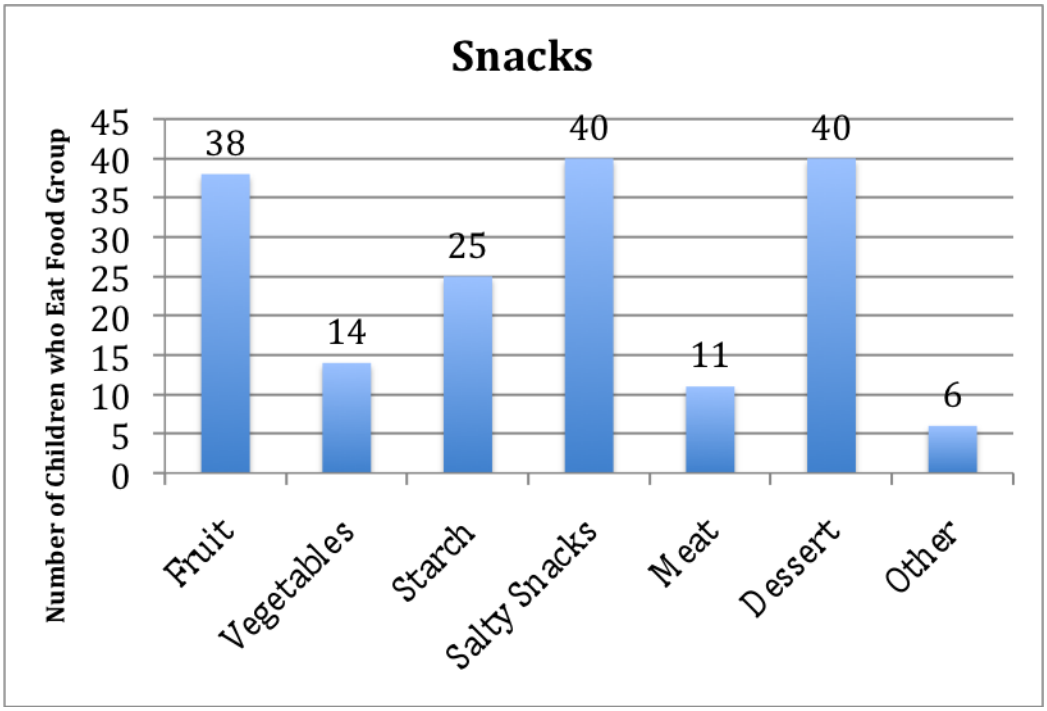
Appendix I Figure 1: Total Number of Children who Eat Food Groups by Meal



Appendix I Figure 3: Number of Children who Eat Food Groups for Breakfast



Appendix I Figure 4: Number of Children who Eat Food Groups for Lunch

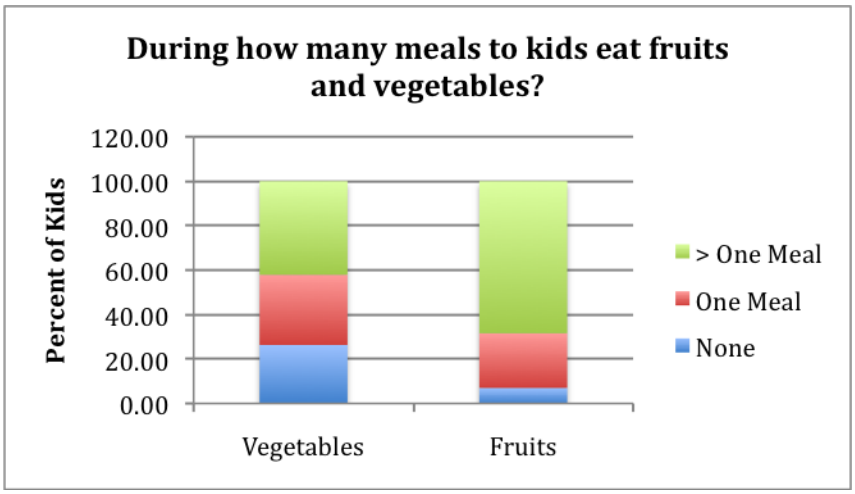


Appendix I Figure 5: Number of Children who Eat Food Groups for Breakfast

Appendix I Figure 6: Number of Children who Eat Food Groups for Breakfast

Overall, children eat more fruits than vegetables. Only 42% of kids reported eating vegetables at more than one meal a day, and 26% of children reported eating no vegetables at all. In contrast, 68% of children reported eating fruit at more than one meal per day and

only 7% did not eat any fruit. Despite the more optimistic numbers for fruits, 32% of children still eat fruit at only one meal or no meal per day.



Appendix I Figure 2: Total Number of Children Who Eat Vegetables and Fruits for Number of Meals

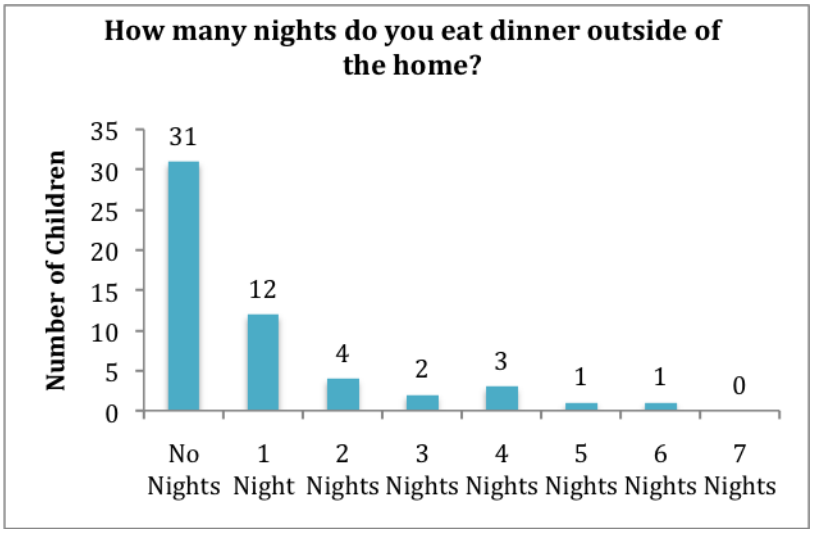
Percent of Children Who Eat Fruits and Vegetables for One or No Meals

	Vegetables	Fruits
None	26.32	7.02
One Meal	31.58	24.56
> One Meal	42.11	68.42

	Vegetables	Fruits
One or None	57.89%	31.58%

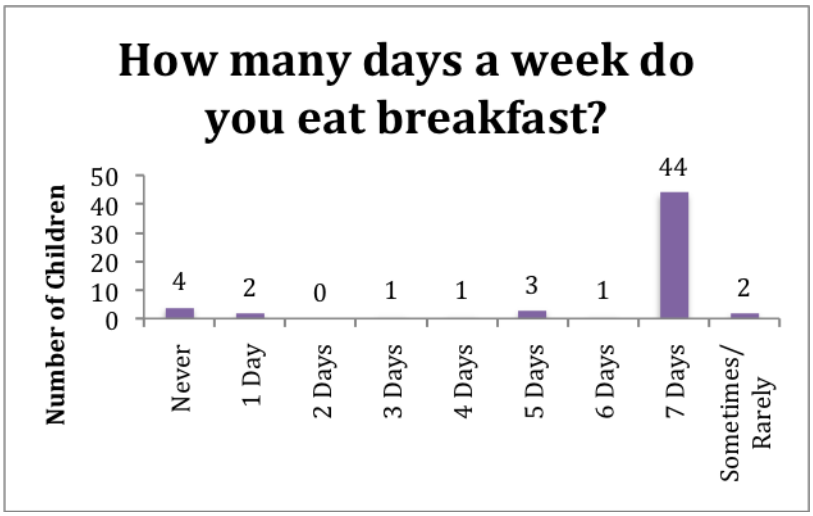
Appendix I Tables 2 &3: Percent of Children who Eat Vegetables and Fruits by Number of Meals

The majority, 31 out of 54 (57%), of children eat dinner at home every night of the week. An additional 22% of children report eating out one night per week. Popular locations to eat out include Old Country Buffet and Burger King. While most children eat at home most nights, many reported eating pizza for dinner, which is likely not home-cooked.



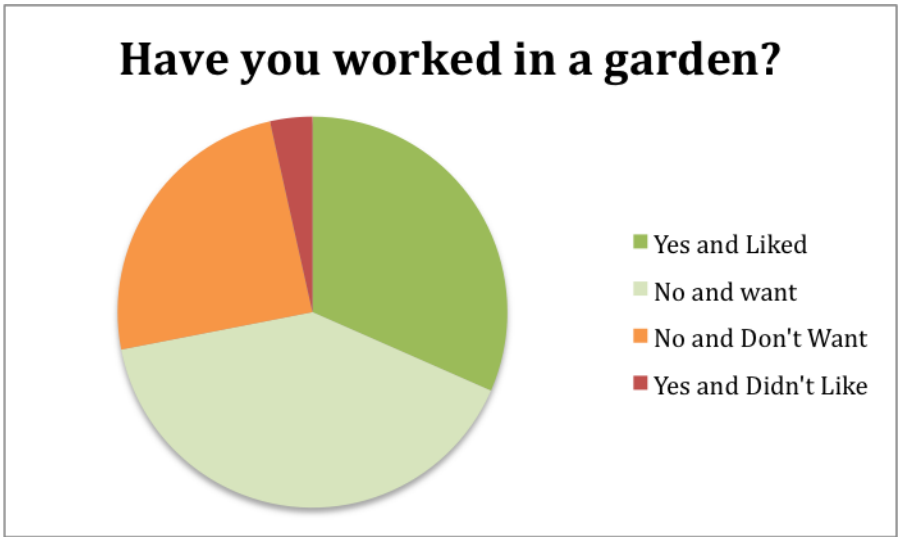
Appendix I Figure 7: Number of Nights Children Eat Dinner Out of the Home

Most children (44 out of 58, or 75%) reported eating breakfast 7 days a week, 4 children never eat breakfast, and 3 eat breakfast 5 days a week.



Appendix I Figure 8: Number of Days per Week Children Eat Breakfast

Children overwhelming had positive experiences in gardens or wanted to try working in a garden. Thirty-two percent of children had worked in a garden and liked it, 40% of children wanted to try working in a garden, 25% had not worked in a garden, and did not want to try, while 2 students at 4% reporting that they had not enjoyed their gardening experience. Combined, 72% of students showed interest in gardening.

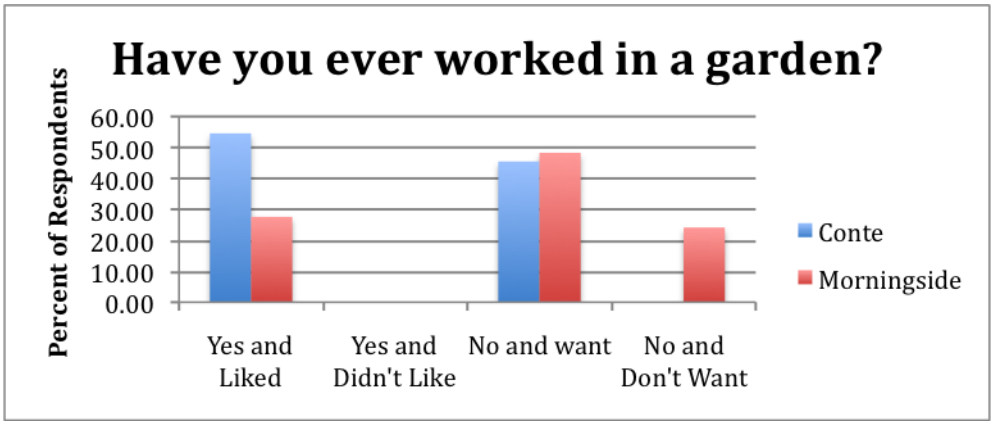


Appendix I Figure 9: Number of Children with Gardening Experience

Conte School and Morningside School provide a good treatment to examine the effect of a school gardening program on children's food consumption. However, the results indicate that there is no discernible difference in food consumption between the schools. While some numbers seem to indicate that Conte children eat more vegetables (75% of Conte children ate vegetables for dinner, compared to 62% of Morningside children), lunch data points in the other direction (29% of Conte children ate vegetables for lunch, compared to 58% of Morningside children). See Appendix I for figures and tables. This inconclusiveness could be caused by a number of factors. The sample size is 24 children for Conte and 29 for Morningside which is not a representative sample. In addition, Conte children were more likely to fill in the "other" category, providing less specific information on what they ate. Thirteen of the Conte children also used plates to describe what they ate, and the difference in survey type may influence the results. Finally, differences in the "snack" category are likely due to differences in the afternoon snack given that day at school and may not reflect

any systematic distinction. More research with larger sample sizes and better controls will be needed to conclusively determine the effect of gardening.

Conte's gardening program seems to have no effect on at-home dinner consumption or on eating breakfast, but it does impact the children's willingness to try gardening. Conte children exclusively worked in a garden and liked it (56%) or have not worked in a garden and want to try (45%). Twenty-five percent of Morningside children, however, have not gardened and show no interest in trying it; 48% have not worked in a garden but would like to try it, and 28% have worked in a garden and enjoyed it. No Morningside student indicated a negative gardening experience. These results indicate that a school gardening program encourages children to try gardening even if they personally have not participated in the program.

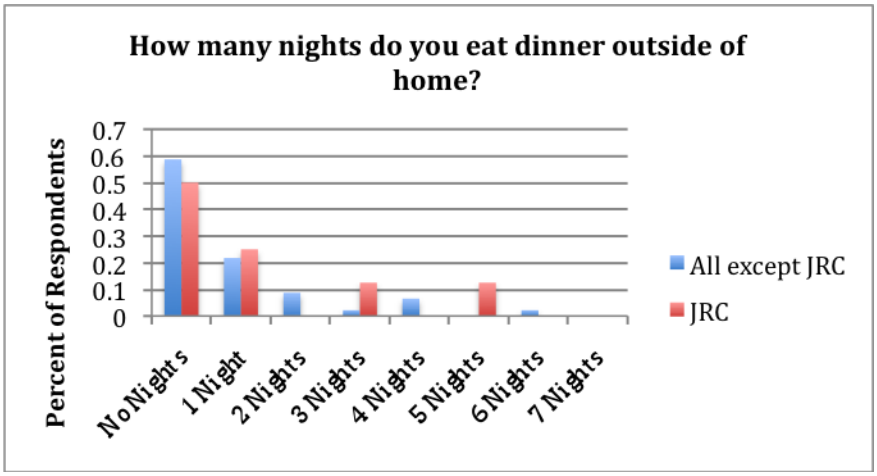


Appendix I Figure 18: Percent of Conte and Morningside Students Who Have Experience Gardening and their Desire to Continue Gardening or Try it for the First Time

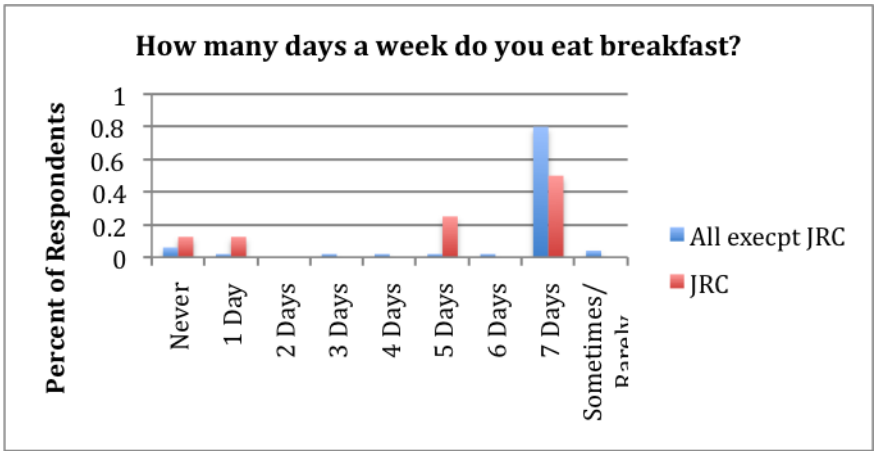
Results- The Juvenile Resource Center:

The Juvenile Resource Center (JRC) sample contains children in high school. Children in this different demographic are less likely to eat at home and eat breakfast every day. They also show a strikingly higher rate of negativity towards gardening. Thirteen of students had

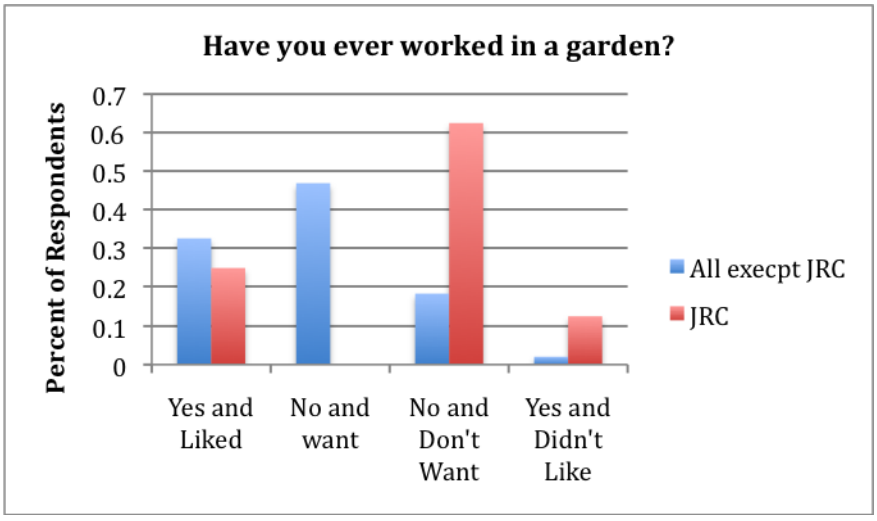
a negative gardening experience, and 25% of the students had tried gardening and liked it, and 63% of students had no interest in trying to garden. No students wanted to try gardening who had not previously tried it. These results indicate that it is critical to introduce gardening at a younger age. Older children tend to be less willing to try gardening.



Appendix I Figure 19: Percent of JRC Students who Eat Dinner Outside of the Home by Nights per Week



Appendix I Figure 20: Percent of JRC Students who Eat Breakfast by Days per Week



Appendix I Figure 21: Percent of JRC Students who Have Experience with Gardening and their Desire to Continue or Try it for the First Time

Data Inconsistencies:

Several inconsistencies cloud the accuracy of our data. First, small sample sizes for the subsets (Morningside, Conte, the Latino Community Group and JRC) make any cross-analysis challenging and likely inaccurate.

Second, self-reporting in the surveys creates a bias. Children may remember what they ate differently than their actual meal. For example, children may be more likely to remember the main course, and forget a side of vegetables or fruit. They may also remember food that tasted either really good or really bad, over less memorable food. Children may also try to tell the interviewers what we want to hear: that they ate fruits and vegetables. Inconsistencies between using plates and tables to survey the kids could influence the reporting. Children who used plates were free to draw whatever they liked, while children who filled in the survey were forced to think about each category of food for each meal.

Surveys are probably the more accurate method to collect data, but were unrealistic for the reading level of some children.

Third, the categories of food groups are poorly designed. We did not account for beverages in the categorical system, and thus beverages were often listed under "other" or not included at all. The groupings also did not line up with those outlined by the US Department of Agriculture. For example, our category of "meat" should have included other proteins such as dairy. Many children reported drinking milk, and this greatly increases the amount of protein they consume. In addition, there was no consistent solution to categorizing "mixed" foods, such as casserole. While one child may have known a casserole contains meat, starch, and vegetable, another child may have only listed meat, or have not included it at all.

Our survey fundamentally was not able to quantify the amount of food a child ate. While we attempted to teach the children the concept of a serving size, estimating the amount of food proved too complicated for most children. Some children filled in the table with only checks to mark which category applied, while others filled it in (correctly) with numbers. These numbers, however, varied greatly from child to child, with some reporting 15 in the meat-dinner box, and others never listing more than three. Thus, we recorded the data with a yes no system, deciding that any attempt to quantify the amount of food eaten was unrealistic. This is a huge gap in our understanding of their diet. A child who had a salad for dinner ate more vegetables than a child who ate a baby carrot for both lunch and dinner. And yet, under our system, it would look like the second child ate more vegetables.

Ultimately, we should have better "child-proofed" our survey before handing it out to all of the children. Some confusion includes:

- The table—this was fundamentally very difficult for more children. If we had not worked the children through each box in many cases, the tables would not have been of any use. Children's abilities to complete the survey depended both on age (high school students, and those in 5th or 6th grade were better able than younger children (those in 2nd or 3rd) and also depended on reading comprehension level.
- There was additional confusion with the term "outside of the house." Some children took this to mean *physically* outside, just as the backyard or porch. Others understood that it meant a restaurant or friends house.
- Children often think in ways that adults do not understand. Some of the answers reflect a pure mix-up. For example, one child, in answer to the question, "How many nights a week do you EAT dinner somewhere outside your house? Where do you eat?" with "25 Applebees." It is unclear what this child was trying to quantify, as he or she clearly did not understand the concept of 7 days in a week.
- Finally, children failed to distinguish between a meal cooked at home or a meal ordered from "outside the home" and eaten at home.

We recommend that future surveyors test the survey on a small group of children of the target age before.

Interview Methodology

In order to gauge the needs of Morningside and try and find the best way to build community support for Mr. Barnaba's greenhouse, we conducted multiple stakeholder interviews. For each interview normally two members of the group would go so that one person could conduct the interview while the other took notes, but on some occasions the interviews were conducted one on one. While the questions varied according to who we were interviewing, typical questions asked were: what do you think Morningside needs? Do you believe that the neighborhood would be receptive to the idea of a greenhouse and fresher, healthier food? What is the best way to get the community involved in a project like Mr. Barnaba's proposed greenhouse?

Stakeholder Interviews:

- Sylvana Bryan: *Pittsfield School Food Service Director*
- Hannah Bracken: *BCAC – Tutor and Gardener*
- Katelynn Chapmann: *The Dream Center*
- Pete White: *City Councilor and Member of Morningside Steering Committee*
- Robert Cornwall: *Pittsfield Community Development Specialist*
- Nate Joyner: *Neighborhood Initiative Liaison*
- Ramiro Davaro-Comas: *Director of Economic Development at Nuestras Raíces*
- Thom Pecoraro: *Westside Garden Founder*
- Kim McMann: *BCAC and Client*
- Anthony Barnaba: *Principal Architect and Client*
- Susan Donohue: *East New York Garden Intern*

The Solution- School Lunch Program in Morningside Community School:

The National School Lunch Program:

There are federally mandated requirements, laid out in the National School Lunch Program that each school must meet. School lunch must reach a certain caloric content depending on the grade/age group, and have one third of the Recommended Daily Allowance (RDA) for protein, calcium, iron, vitamin A, vitamin C. For K-6 grade the lunch must have 664 calories, 10g of protein, 286mg of calcium, 3.5mg of iron, 224RE of vitamin A, and 16mg of vitamin C (53 FR 29147). School lunches are also not allowed to have more than 30% of the calories be fat and no more than 10% of the calories can be saturated fat.

Along with nutritional requirements, the government also subsidizes school lunches and will provide free school lunches for those who qualify. Lunches are subsidized because the state government pays $.0525 for every lunch and the federal government pays $.26, totaling $.3125 regardless if it is a free or reduced price lunch. State contribution never changes, but when a student qualifies for reduced price lunch the federal government pays an additional $2.11 totaling $2.4225. When the lunch is free the federal government pays an additional $2.51, to the $.26 it always pays, totaling $2.8225 (Bryan, 2011). For students to qualify for federal funding for free lunch, the family can have income up to 130% of the poverty level, which is $29,055 for a family of four (Dillion, 2011). Children who are in a family of four whose income is less than $41,348 qualify for reduced price lunches (Dillion, 2011).

In Morningside 81.6% of the students qualify for free lunch and 9.4% qualify for reduced lunch (Bryan, 2011). The high rate of free lunches is not unique to Morningside, the number of students receiving subsidized lunch across the United States has jumped up drastically in the past few years due to the economic depression. Last year, 18 million students qualified for subsidized lunches and this year 21 million students qualify, a 17% rise in one year (Dillion, 2011). The law states that any school where 40% of the lunches served are free or reduced price, is considered a "severe need breakfast school" (Millet, 2011). The "severe need breakfast schools" do not need to submit cost documentation to receive federal reimbursement (Millet, 2011). Also, if 50% of the students receive free or reduced school lunch then the school is considered "at risk" and a free afterschool snack is available for them (USDA, 2011). In this meal they must have two out of the following four components: a serving of milk, a serving of meat or meat alternative like nuts, a serving of vegetables, and a serving of whole-grain or enriched bread (USDA, 2011). Since a large number of Morningside students qualify for free or reduced lunch, the school continues to serve breakfast and lunch to, not only students, but the whole community throughout the summer. No identification or documentation is needed from people who receive meals. The Morningside Community School served 4,474 lunches and 1,920 breakfasts over the 2011 summer (Bryan, 2011). Assuming that the summer is 60 days long, this means that the school served an average of 75 lunches and 32 breakfasts a day.

Given the information above, food eaten at school can have a huge impact on children's diets. Some students are eating two meals a day at school year round with additional snacks after school when school is in session. Therefore, the children in the neighborhood

can eat more than half their meals throughout the year at school. Since many of the families in Morningside are facing economic hardships, they may not be able to supply high quality meals to their children. As a result, the meals the children get from the school may be the most nutritious meals they eat. Offering healthy, fresh food at school meals should be one of the highest priorities of the school and the relationship between Mr. Barnaba's greenhouse and Morningside Community School can help to fulfill that need.

Why the Schools:

Targeting school lunches is especially important because the best way to combat social habits and fast food addiction is to focus on youth. By preventing nutritional imbalances early in life, children are more likely to be healthy adults. Changing unhealthy behavior early decreases the risk of unhealthy habits in adulthood (Bittman 2011). The school lunch program is a guarantee that children who may otherwise not eat healthy foods will have one balance meal a day. Influencing school lunch policy is one of the policy recommendations of the American Medical Association (AMA) in targeting childhood obesity. They also recommend looking at snack programs and health education efforts (AMA 2011).

Slyvana Bryan:

Blueline Design Inc. and Morningside Community School could form a mutually beneficial relationship. Anthony Barnaba wants to build a greenhouse yet he needs to find a consumer, and we believe that Morningside Community School would be the perfect partner because there is a demand for fresh food in the school. In our interview with

Sylvana Bryan, the Director of Food Services for Pittsfield public schools, she is buying local fresh foods. The ability for Ms. Bryan to buy local, fresh is relatively new. Until recently, all the food used for school lunch had to be bought from a "reputable vendor", certified by the USDA, which prohibited her from buying and serving food from local farms or gardens (Bryan, 2011). A few years ago the regulations were relaxed to make it possible to serve local food at school lunches (Bryan, 2011). Currently she is using an organization called Berkshire Organics, which tells her when local foods are available and how much they cost. She purchases apples the most because they are affordable and the children love to eat them. Apart from Berkshire Organics, a small amount of fresh food from the Conte garden goes to Conte elementary school. Ms. Bryan said one of the problems that she had with buying local food is that the growing season is so short in New England that during most of the school year fresh local food is not available. Anthony's greenhouse would be the perfect solution to this problem because it will be able to produce fresh vegetables year round. Ms. Bryan made an observation that children were unlikely to eat food in school that they did not eat at home because they were not use to them. Ms. Bryan's proposed solution to this problem was to offer cooking classes for young parents so that they could learn how to incorporate healthy food into their meals (Byran, 2011).

Case Studies

Below are four successful urban community gardens and greenhouse project that provide practical lessons and inspiration for a similar project to be implemented in Morningside. The projects are mentioned because the urban communities in which these gardens were constructed are socially, geographically, and economically similar to Morningside.

Altogether these case studies prove that not only is it feasible to offer accessible fresh food to Morningside, but that an integrative garden can spur a broader community revitalization.

NYSunworks :

NYSunworks is a non-profit organization that promotes sustainability in schools by building greenhouses that double as classrooms, with an integrated environmental science curriculum, and school cafeteria food suppliers. They implement hydroponic greenhouses, meaning that seeds grow not with soil, but rather with water and nutrients from fish waste. Water filled with life-giving nutrients must be cycled through the plant root system twice a day: “In hydroponics, we give the food to the roots,” said Laurie Shoeman, director of NYSunworks. A hydroponic greenhouse of 800-900 square feet can produce up to 5,000 pounds of produce every twelve weeks. NYSunworks uses hydroponic agriculture because New York City soil is not clean, soilless greenhouses weigh less on rooftops, and as an innovative, efficient new agricultural process, in which students engage with the nutrient cycling process, hydroponics act as a valuable teaching tool. The greenhouses they have built serve as teacher training centers and model for duplication at other schools.

NYSunworks plans to build 100 greenhouse classrooms throughout New York City so that every child has access to high quality science education.

East New York Farms

East New York Farms is a useful case study for Morningside because East New York and Morningside are facing many of the same problems, although East New York to a more extreme degree. Both neighborhoods have a history of high crime rates and poverty, they both have limited access to fresh healthy food, and East New York has started to build community gardens, which is a proposed solution in Morningside. As part of the research for East New York Farms, we interviewed Susan Donohue, a student at Williams College, who had worked at East New York Farms during high school, and she was able to provide valuable information.

East New York is notoriously troubled by high poverty and crime. The *Daily Intel* wrote an article on crime in East New York claiming that it was the most dangerous neighborhood in New York City. From January 1st 2010 to May 27th 2010, East New York experienced 27 rapes, 284 robberies, 286 felony assaults, and 14 murders; the most in all these categories

for New York City (Rovzar, 2010). Yet the magazine writes, "Compared to the days when there were more than 100 murders a year in the neighborhood…this is nothing" (Rovzar, 2010). Gangs cause much of this violence. Crime and robberies are some of the reasons that East New York is unattractive to business. Therefore, part of the reason East New York is a food desert is that no supermarket has interest in establishing a business there. There were no supermarkets within the neighborhood, which is about 60 blocks, many people do not own cars and cannot afford the subway/bus fare; [[[in fact police officers had to be stationed at the turn stills because people would repeatedly jump them to get on the train]]] (Donohue, 2011 CITES MUST BE CONSISTENT). Therefore, it was nearly impossible for East New York residents to access fresh food.

Out of this environment of violence and poverty sprung East New York Farms. Established in 1998, East New York Farms mission is "to organize youth and adults to address food justice in our community by promoting local sustainable agriculture and community-led economic development" (United Community Center). East New York Farms gives people the tools to help themselves, which is far more efficient than giving people a hand-out (Donohue CITES MUST BE CONSISTENT). Since starting with only two gardeners and one lot in 1998, East New York Farms has grown to have dozens of gardeners, including 33 youth interns who do a 9 month program, in which they are involved in all aspects of running a half acre organic farm, and 65 gardens around the neighborhood (United Community Center, 2011). East New York Farms takes advantage of the large number of vacant lots in the area and transforms them into community gardens. The produce from

these gardens sell fresh affordable food to over 17,000 people a year (United Community Center, 2011).

East New York Farms is much more than just a source of food; it has reinvigorated a community that was suffering. Elderly people who felt like they had lost a sense of purpose have now become the managers of community gardens (Donohue, 2011). Crime has gone down, and the City is willing to reinvest in East New York; whereas before it was reluctant to do so. For example, one playground the City built was vandalized within 24 hours and became a place to sell drugs therefore the city stopped building playgrounds in East New York. East New York Farms changed the perception of the neighborhood the City is now willing to build new playgrounds (Donohue, 2011).

East New York Farms would be a great model for Morningside because of the similar problems that they face. The youth involvement overlaps nicely with Morningside because our clients hope to cooperate with the local elementary school. The youth in the neighborhood can learn valuable lessons about the environment, nutrition, and entrepreneurship. They would also learn management skills that would help them get jobs later in life, especially in the organic food industry.

BCAC Garden Program

Another case study which is highly relevant to our project is the BCAC Garden Program. It is located in a West Pittsfield neighborhood, with similar characteristics to Morningside. It is a grass roots initiative, led by Tom Pecoraro, who is considered the founder of the BCAC Garden Program, then known as the Westside Farm Project. Its mission is to engage youth and volunteers in hands on learning in gardens, to provide fresh food for high-priority sites in the neighborhood, and to create attractive green space in the neighborhood. In early 2008, Pecoraro proposed the development of community gardens to the Westside Neighborhood Initiative Steering Committee, and after receiving a positive response, implemented the first garden in an abandoned lot on Robbins Street in July of 2008. In pursuit of their educational goals, the BCAC Garden Program holds weekly children's workshops at the garden.

In its first full growing season, in 2009, the garden produced 500 pounds of food, and only had $2000 worth of expenditures. The BCAC Garden Program has no paid staff or

contractors. In 2010 the project expanded to two new lots, one on Linden Avenue and the other at the Conte School. With these new lots the total garden area was 9,000 square feet and in 2010 the gardens combined to produce 3,000 pounds of food. Yet, fresh food is not the only benefit of the community gardens. The *Berkshire Eagle* reported that garden has brought pride back to the neighborhood, much the same way East New York Farms brought pride back to their community.

Nuestras Raíces:

Nuetras Raíces is an organization that runs a farmer training program in Mount Holyoke, Massachusetts. The program was instigated by a local community member who began farming in one of the many vacant lots in Mount Holyoke. "More of his friends and people around the city wanted to do the same thing. …it kind of just started from the ground up from people here wanting to do something," explained Romero Davaro-Comas of Nuestras Raices. Mount Holyoke "is 50% Latino and probably 99% of them are from Puerto Rico. So a lot of people here have a really strong agricultural background."

In 2005, the organization bought a farm through government funding. “We didn’t just do that for no reason,” explained Davaro-Comas: “we asked the community, what do you want? …what’s the next step? They said well this is great, but we really want to be able to start our own agricultural businesses.” The farmers in training now have 30 acres of land to work on and 4 greenhouses, one of which they rent out to a farmer who grows whatever the other farmers want and sells them as starts, another is a hoop house, where they are experimenting with how long they can extend the growing season, and two others, which the farmers in training use to grow produce to sell.

This case study demonstrates that agricultural programs must work in tandem with community needs, that greenhouses can be successfully incorporated with conventional agriculture, and that government funding is available for innovative agricultural programs that benefit the community.

Conclusions and Recommendations:

Considering interviews, survey results, and community demographics simultaneously, we have concluded a few simple but vital points that support the continuation of a greenhouse and garden project.

Our research indicates that many children in Morningside children do not have enough fresh produce in their diets, meaning that they are nutritionally imbalanced and more likely to become overweight and face associated health risks. The results of our surveys show that only 42% of kids eat vegetables at more than one meal a day, and 26% of children reported eating no vegetables at all. Despite the more optimistic numbers for fruits, 32% of children still eat fruit at only one meal or no meal per day. Research shows that inactive and moderately active boys between the ages of 9 and 13 need 1.5 cups of fruits and 2.5 cups of vegetables a day, and active boys need 2 cups of fruits and 2.5 cups of vegetables a day (CDC). Inactive or moderately active girls between the ages of 9 and 13 need 1.5 cups of fruits and 2 cups of vegetables a day, and active girls need 1.5 cups of fruit and 2.5 cups of vegetables a day. Though we did not assess the exact quantities of fruits and vegetables these children ate, it is still clear from the numbers who never or rarely ate fruit and vegetables, that most students surveyed are not enough produce. Therefore, any produce that the greenhouse project could donate to the school would be highly beneficial.

Our interviews demonstrate that the community would be receptive to a greenhouse project that provides produce to the students in their school lunch. Katelynn Chapmann,

(director of the Dream Center), Nate Joyner, (Neighborhood Initiative Liaison), Bob Cornwell (Pittsfield Community Development Specialist), Pete White (City Councilor), and Gail Krumpholz (Chairperson of the Morningside Initiative) all believed the community would be highly in favor of this project. "I think they'd think it was great. I think they'd be really receptive in thinking it's really wonderful for the kids," said Chapmann.

Not only will the children benefit from the greenhouse project, but they will also benefit from a community garden created near the greenhouse. Our surveys showed that children overwhelming had positive experiences in gardens or wanted to try working in a garden; combined, 72% of students showed interest in gardening. Chapmann also believed that adult residents of the community, particularly those who are unemployed, would benefit from involvement in the gardening project: "I think it would be good for all of them to be involved in a gardening project…because a lot of the people on this street are unemployed, so during the daytime they need something to do."

It is also clear that the Morningside could greatly benefit from interacting with this building as a community hub. People gathering around this space would help to reduce crime in an area that is central to the neighborhood. "You grow food, and crime goes down," said Kim McMann. Pete White thought that if we could "get this place going" then "people will know the Old Eagle Club building is vibrant…so they're not going to want to do something bad around it, because they know there will be people around…That's the best way to get rid of crime, have so many people around that you can't do anything…If this place is successful it will shine a light on Adams Street, on First Street." As noted at the beginning of this quote,

people could reclaim this building as an innovative newer version of the past Eagles Club, a place where people in this community could meet, a place that residents could be proud of. Barnaba's description of the changing story of this building's position within the city, "while in its prime the club served a solid blue class neighborhood, as it stands today it is a rundown neighborhood on the urban edge, with the drugs, poverty, crime, and all that goes with it," demonstrates what this building has been and could become. Since Morningside only has a 32% owner occupancy rate, many residents may not feel ownership in their community. Thus, if the building and garden could become a community gathering place, residents could benefit from being able to claim this communal space.

We recommend creating an outreach campaign that makes Morningside residents aware, of and comfortable with, the greenhouse project, as well as encouraging them to participate in it. Pete White's first immediate advice to us in order to get this project running was to "just go door to door…really get the message out of how people can get involved." Gail Krumpholz explained, "I think this project will be well received by the neighborhood especially if the neighbors are asked to become involved on some level. I find in this neighborhood the more people are encouraged to take part in certain projects the more receptive they are to that project. We like being 'kept in the loop'." And as Katelynn Chapmann argued, "you can't do any good unless you know the people."

Existing and Successful Community Spaces- Pittsfield Skate Park:

Morningside already has a successful and vibrant public space where people ranging from all ages can gather and pass time performing a positive hobby: Skateboarding. The Skate

Park covers the corner of the block on the south side of East Street and Appleton Avenue (across from Pittsfield High School). On a fall Sunday afternoon there were approximately fifty people skateboarding or observing the activity. This sight of a large inclusive gathering of the community indicates that a cultural space that is even more central within the community (as the site of the new greenhouse) and more welcoming space (for people who are not interested in an extreme physical activity) can thrive in Morningside. Additionally, having both spaces will strengthen the social bond of the community.

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Appendix I- Survey Data

Totals: Plates and Tables Data

Table 1: Total Number of Children who Eat Food Groups by Meal

	Breakfast	Lunch	Snacks	Dinner
Fruit	46	47	38	15
Vegetables	5	28	14	40
Starch	56	48	25	58
Salty Snacks	10	22	40	21
Meat	14	39	11	59
Dessert	9	22	40	32
Other	14	8	6	4

n=70 respondents

Table 2: Total Percent of Children Who Eat Vegetables and Fruits for Number of Meals

	Vegetables	Fruits
None	26.32%	7.02%
One Meal	31.58%	24.56%
> One Meal	42.11%	68.42%

Table 3: Total Percentage of Children Who Eat Vegetables and Fruits for One or No Meals

	Vegetables	Fruits
One or None	57.89%	31.58%

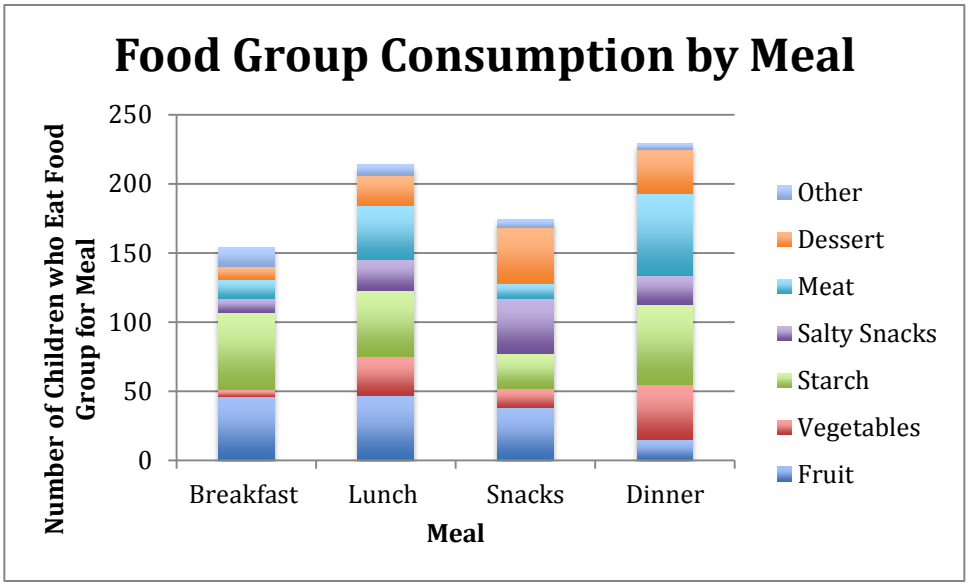

Figure 1: Total Number of Children who Eat Food Groups by Meal

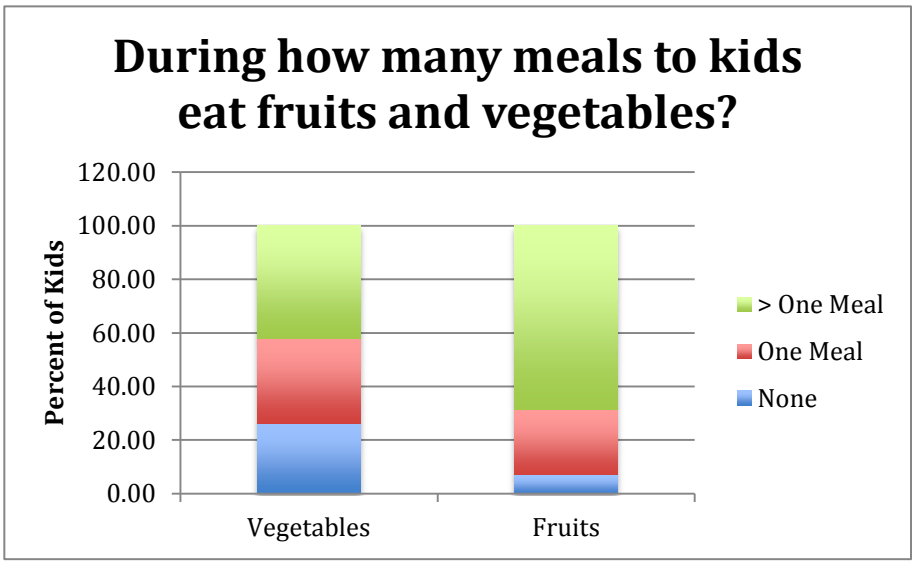

Figure 2: Total Number of Children Who Eat Vegetables and Fruits for Number of Meals

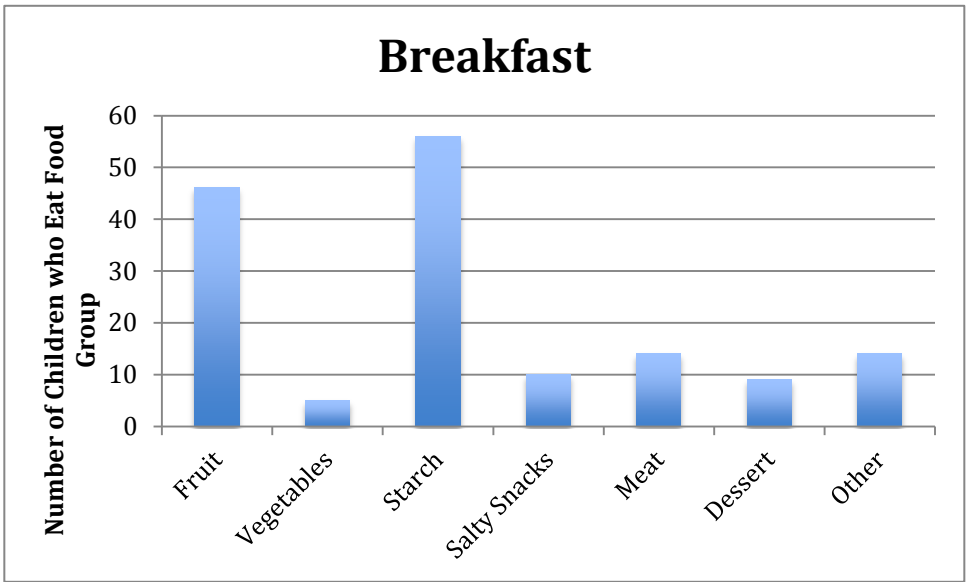

Figure 3: Number of Children who Eat Food Groups for Breakfast

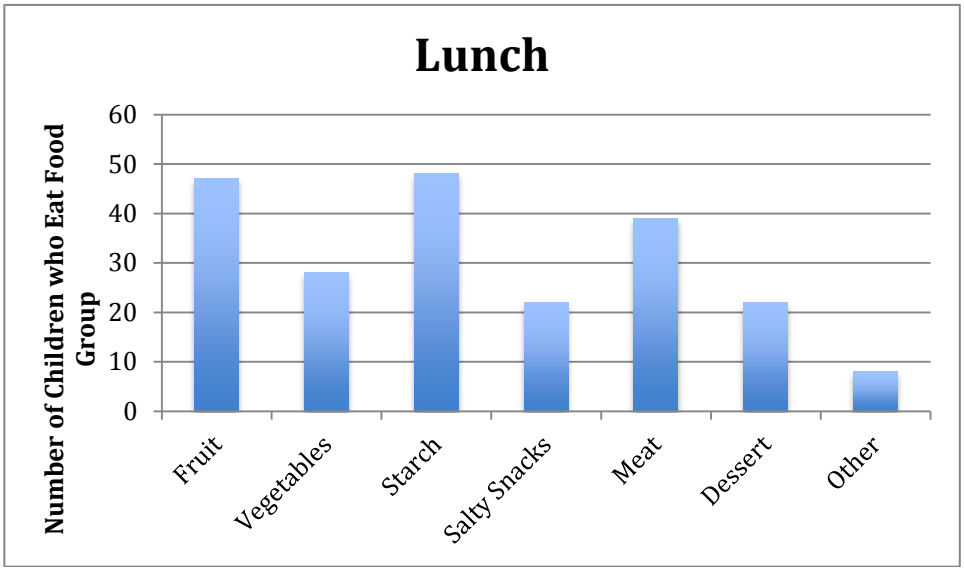

Figure 4: Number of Children who Eat Food Groups for Lunch

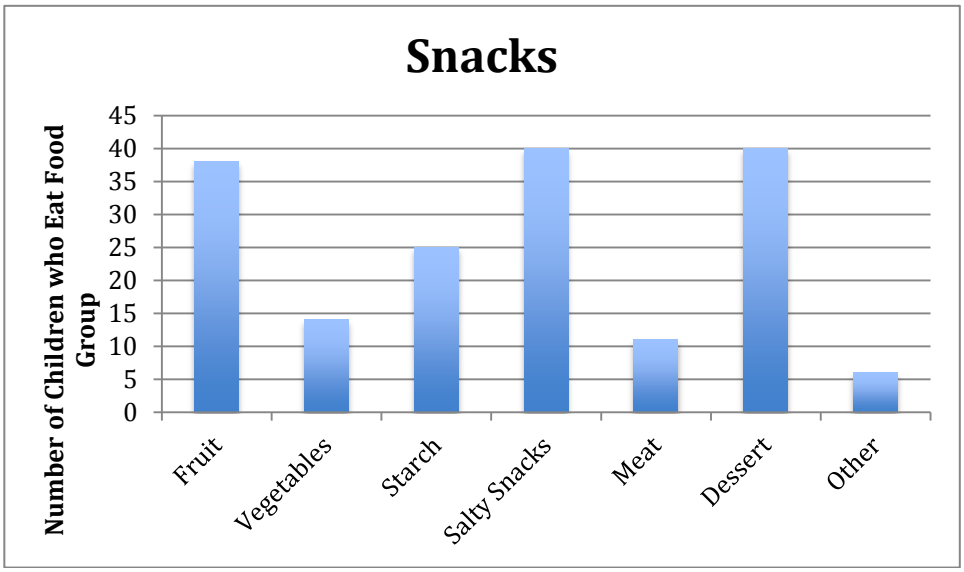

Figure 5: Number of Children who Eat Food Groups for Snack

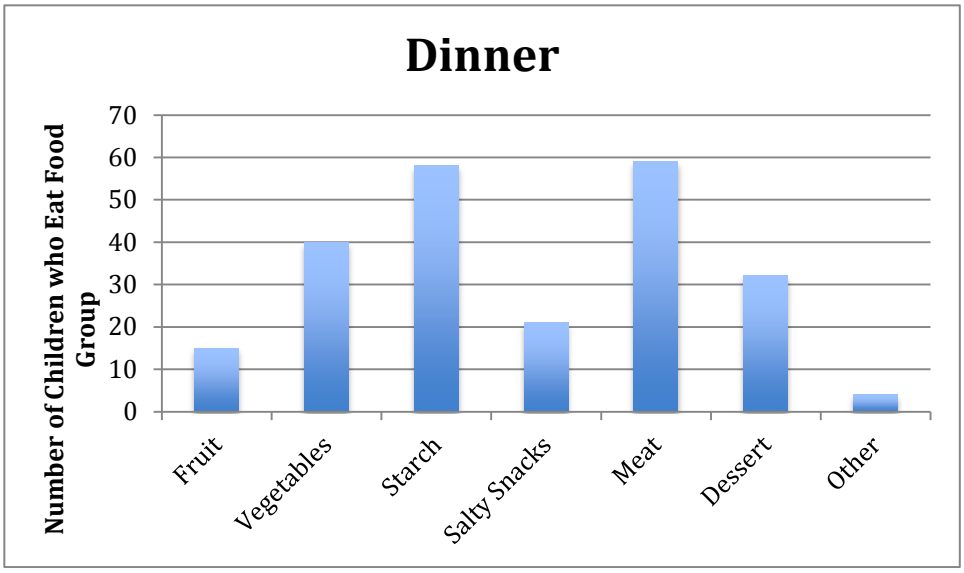

Figure 6: Number of Children who Eat Food Groups for Dinner

Totals: Survey Answers

Table 4: Number of Nights Children Eat Dinner Out of the Home

Number of Nights	Number of Children
No Nights	31
1 Night	12
2 Nights	4
3 Nights	2
4 Nights	3
5 Nights	1
6 Nights	1
7 Nights	0

N=52 respondents

Table 5: Number of Days Per Week Children Eat Breakfast

Number of Days	Number of Children
Never	4
1 Day	2
2 Days	0
3 Days	1
4 Days	1
5 Days	3
6 Days	1
7 Days	44
Sometimes/ Rarely	2

N= 55 respondents

Table 6: Number of Children with Gardening Experience

Gardening Experience	Number of Children
Yes and Liked	18
No and want	23
No and Don't Want	14
Yes and Didn't Like	2

N= 55 Respondents

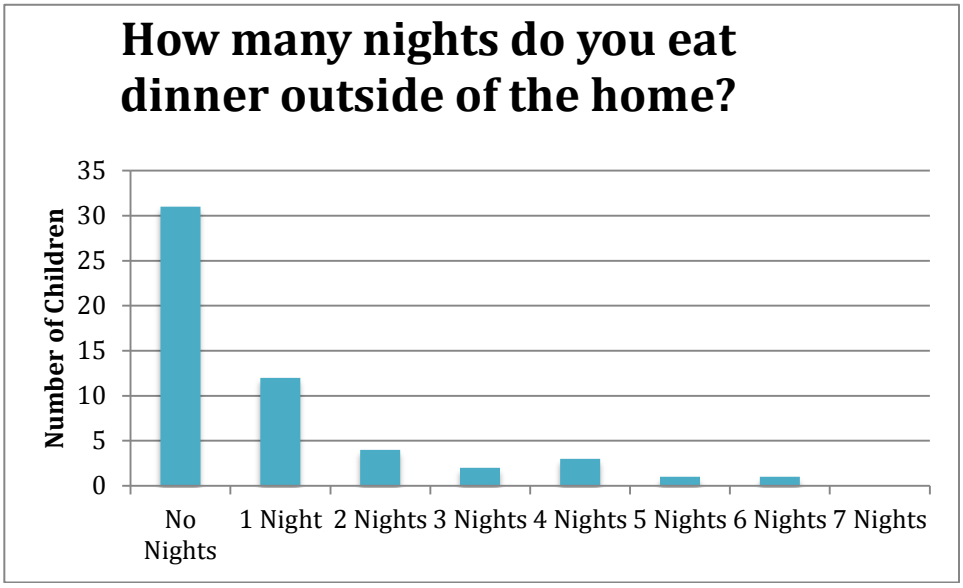

Figure 7: Number of Nights Children Eat Dinner Out of the Home

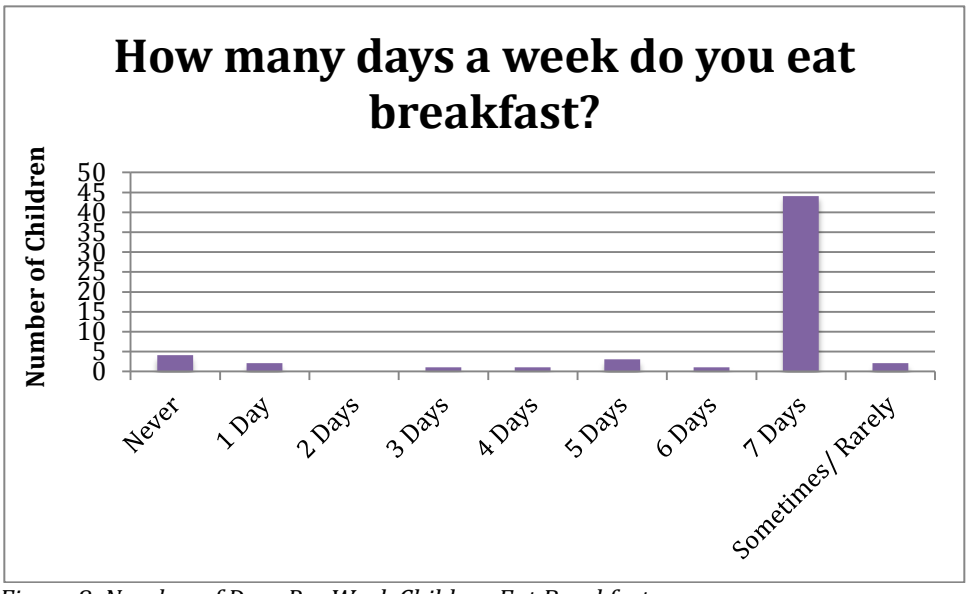

Figure 8: Number of Days Per Week Children Eat Breakfast

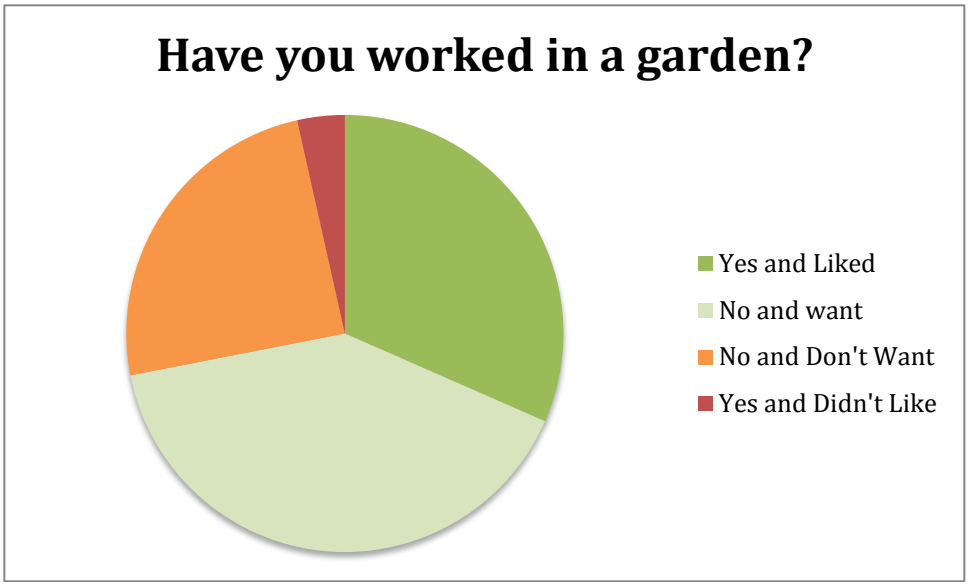

Figure 9: Number of Children with Gardening Experience

Conte-Morningside Comparison: Plates and Tables Data

Table 7: Proportion of Conte Students who Eat Food Groups by Meal

Conte	Breakfast	Lunch	Snacks	Dinner
Fruit	0.50	0.54	0.21	0.17
Vegetables	0.00	0.29	0.08	0.50
Starch	0.79	0.71	0.54	0.75
Salty Snacks	0.04	0.04	0.17	0.21
Meat	0.13	0.29	0.04	0.71
Dessert	0.00	0.04	0.38	0.21
Other	0.50	0.50	0.21	0.29

N=24 Respondents

Table 7: Proportion of Morningside Students who Eat Food Groups by Meal

Morningside	Breakfast	Lunch	Snacks	Dinner
Fruit	0.72	0.69	0.83	0.28
Vegetables	0.17	0.59	0.38	0.62
Starch	0.76	0.55	0.31	0.86
Salty Snacks	0.17	0.45	0.79	0.31
Meat	0.21	0.62	0.28	0.93
Dessert	0.14	0.38	0.72	0.66
Other	0.07	0.03	0.03	0.00

N=29 Respondents

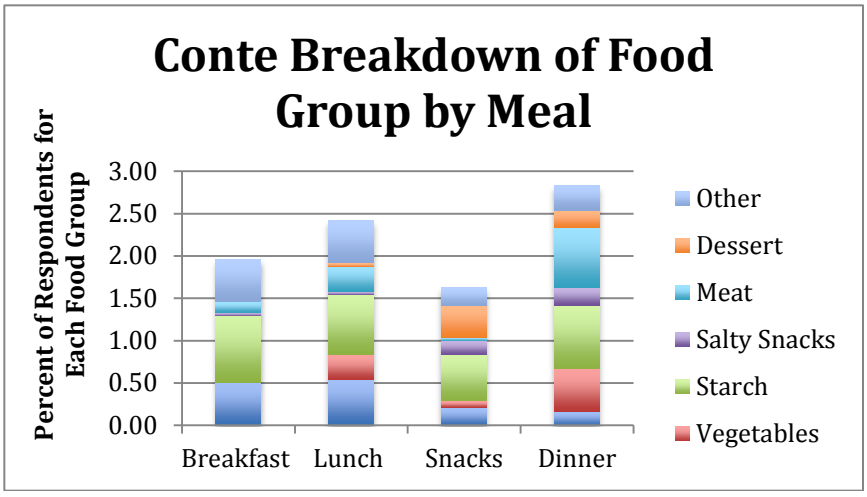

Figure 10: Number of Conte Students who Eat Food Groups by Meal

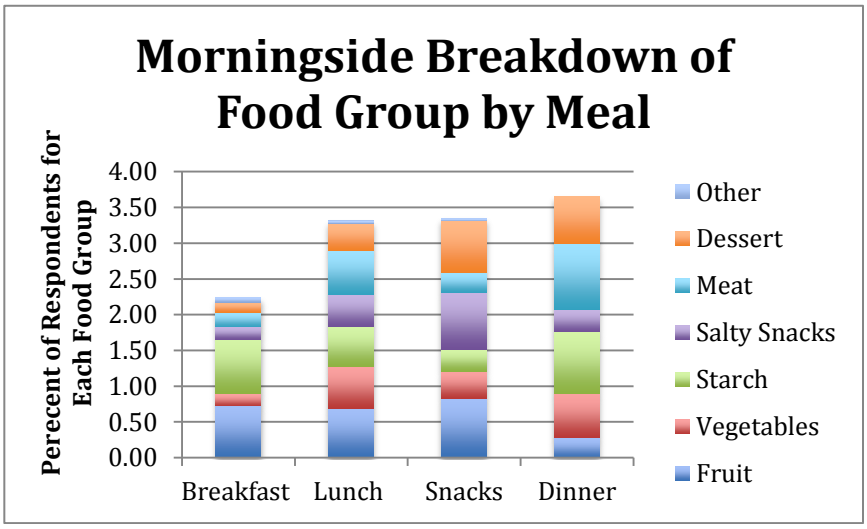

Figure 11: Number of Morningside Students who Eat Food Groups by Meal

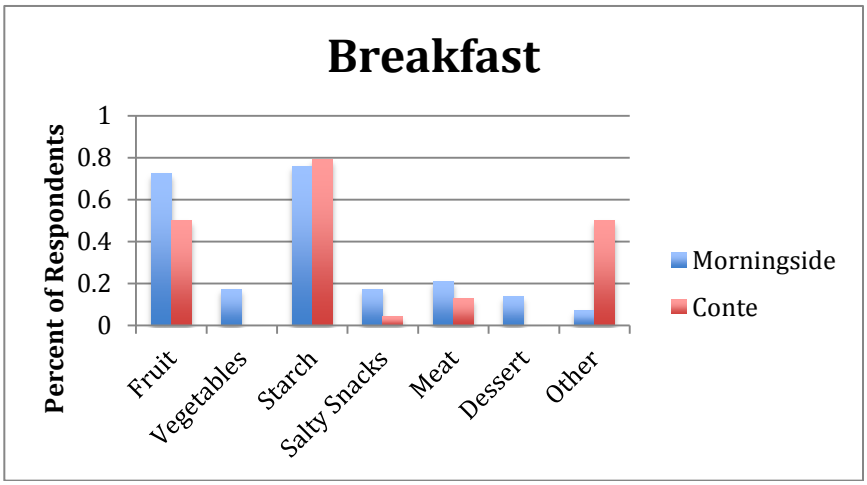

Figure 12: Consumption Habits of Conte and Morningside Students for Breakfast

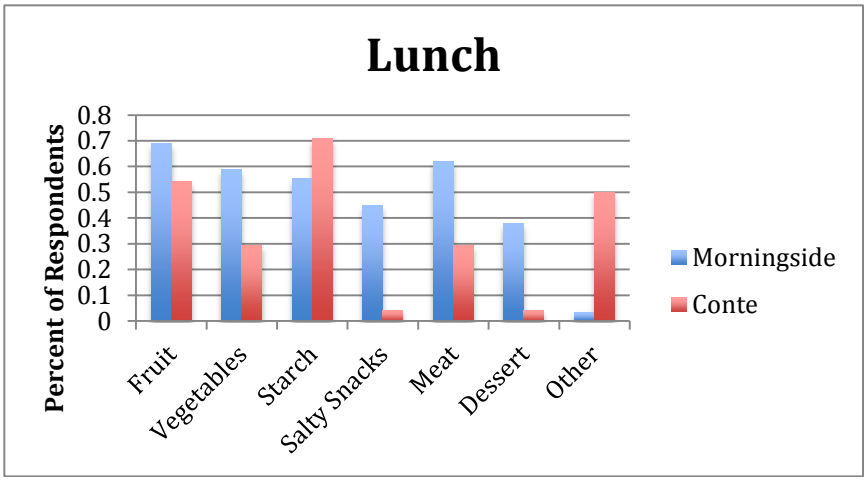

Figure 13: Consumption Habits of Conte and Morningside Students for Lunch

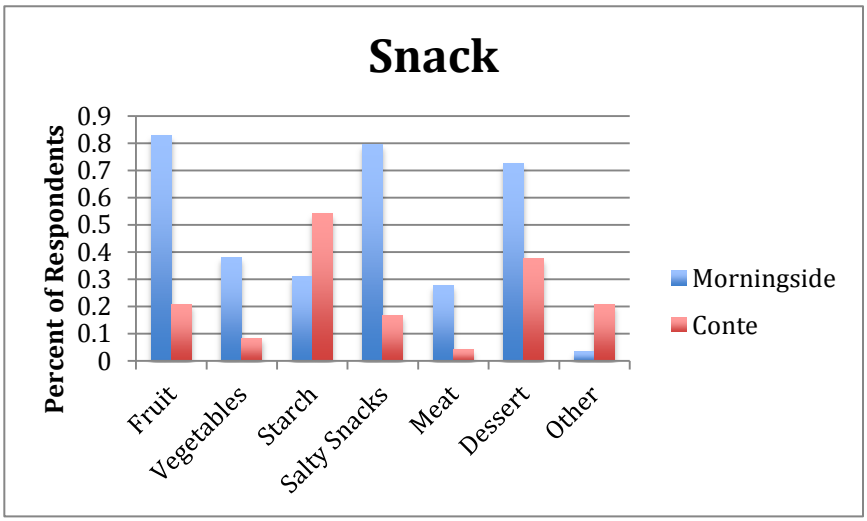

Figure 14: Consumption Habits of Conte and Morningside Students for Snack

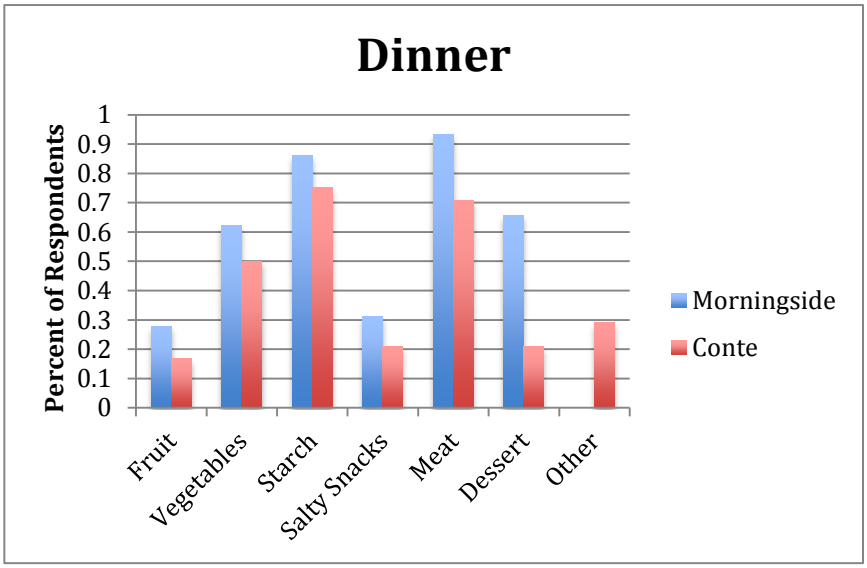

Figure 15: Consumption Habits of Conte and Morningside Students for Dinner

Conte-Morningside Comparison: Survey Answers

Table 8: Percent of Conte and Morningside Students Who Eat Dinner Outside the Home by Number of Nights per Week

	Conte	Morningside
No Nights	60%	60.7%
1 Night	40%	14.3%
2 Nights	0%	7.1%
3 Nights	0%	3.5%
4 Nights	0%	10.7%
5 Nights	0%	0%
6 Nights	0%	3.5%
7 Nights	0%	0%
n=respondents	10	28

Table 8: Percent of Conte and Morningside Students Who Eat Breakfast Number of Days per Week

	Conte	Morningside
Never	15.38%	3.455
1 Day	0%	6.90%
2 Days	0%	0%
3 Days	0%	0%
4 Days	0%	3.45%
5 Days	0%	3.45%
6 Days	0%	3.45%
7 Days	69.23%	79.31%
Sometimes/ Rarely	15.38%	0
n=respondents	13	29

Table 9: Percent of Conte and Morningside Students Who Have Experience Gardening and their Desire to Continue Gardening or Try it.

	Conte	Morningside
Yes and Liked	54.55%	27.59%
Yes and Didn't Like	0 %	0%
No and want	45.45%	48.28%
No and Don't Want	0%	24.14%
n=respondents	11	29

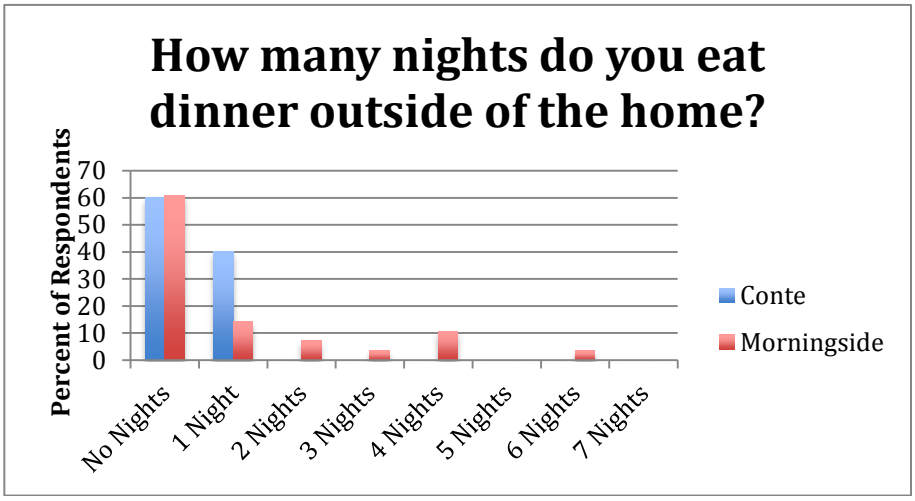

Figure 16: Percent of Conte and Morningside Students Who Eat Dinner Outside the Home by Number of Nights per Week

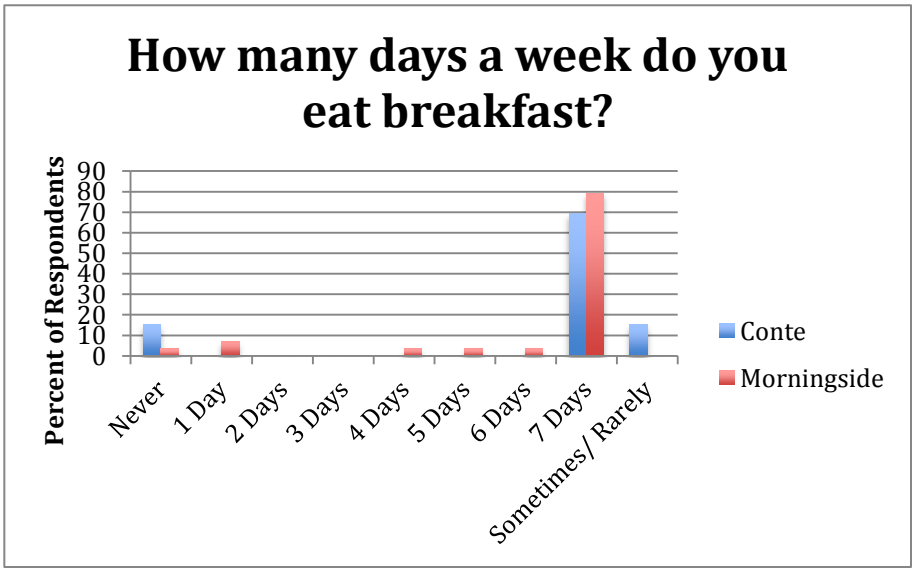

Figure 17: Percent of Conte and Morningside Students Who Eat Breakfast Number of Days per Week

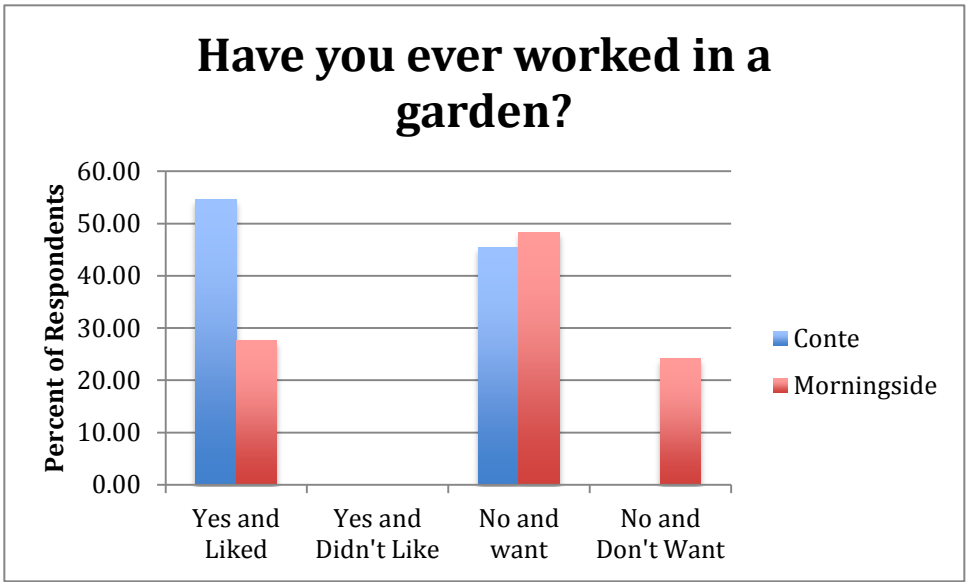

Figure 18: Percent of Conte and Morningside Students Who Have Experience Gardening and their Desire to Continue Gardening or Try it for the First Time

Juvenile Resource Center (JRC) Analysis: Survey Answers

Table 10: Percent of JRC Students who Eat Dinner Outside of the Home by Nights per Week

	All except JRC	JRC
No Nights	58.70%	50.00%
1 Night	21.74%	25.00%
2 Nights	8.70%	0%
3 Nights	2.17%	12.50%
4 Nights	6.52%	0%
5 Nights	0.00%	12.50%
6 Nights	2.17%	0%
7 Nights	0.00%	0%
n=respondents	46	8

Table 11: Percent of JRC Students who Eat Breakfast by Days per Week

	All except JRC	JRC
Never	6%	12.5%
1 Day	2%	12.5%
2 Days	0%	0%
3 Days	2%	0%
4 Days	2%	0%
5 Days	2%	25%
6 Days	2%	0%
7 Days	80%	50%
Sometimes/ Rarely	4%	0%
n=respondents	50	8

Table 12: Percent of JRC Students who Have Experience with Gardening and their Desire to Continue or Try it for the First Time

	All except JRC	JRC
Yes and Liked	32.65%	25.00%
No and want	46.94%	0.00%
No and Don't Want	18.37%	62.50%
Yes and Didn't Like	2.04%	12.50%
n=respondents	49	8

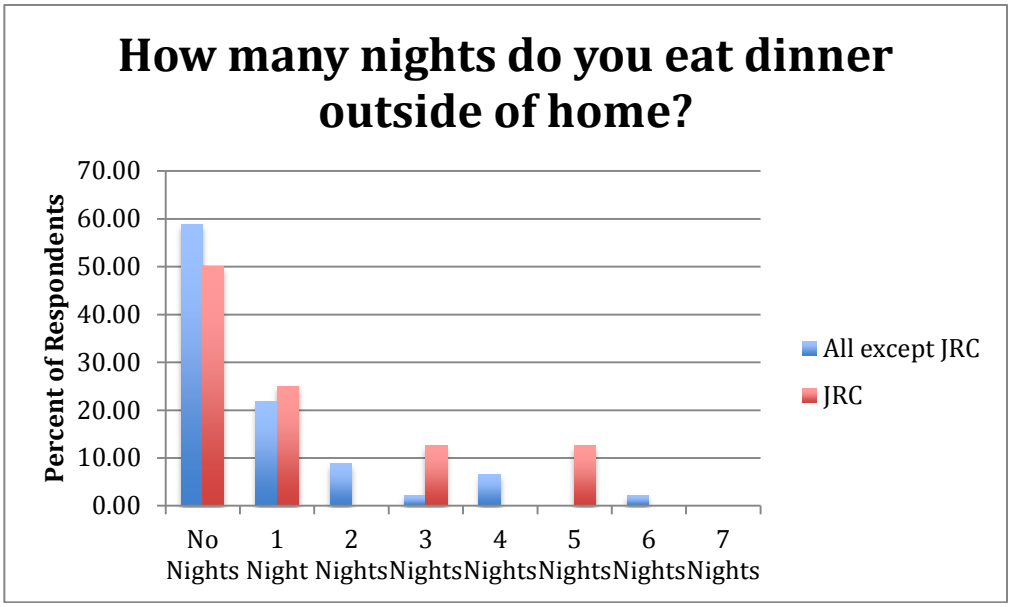

Figure 19: Percent of JRC Students who Eat Dinner Outside of the Home by Nights per Week

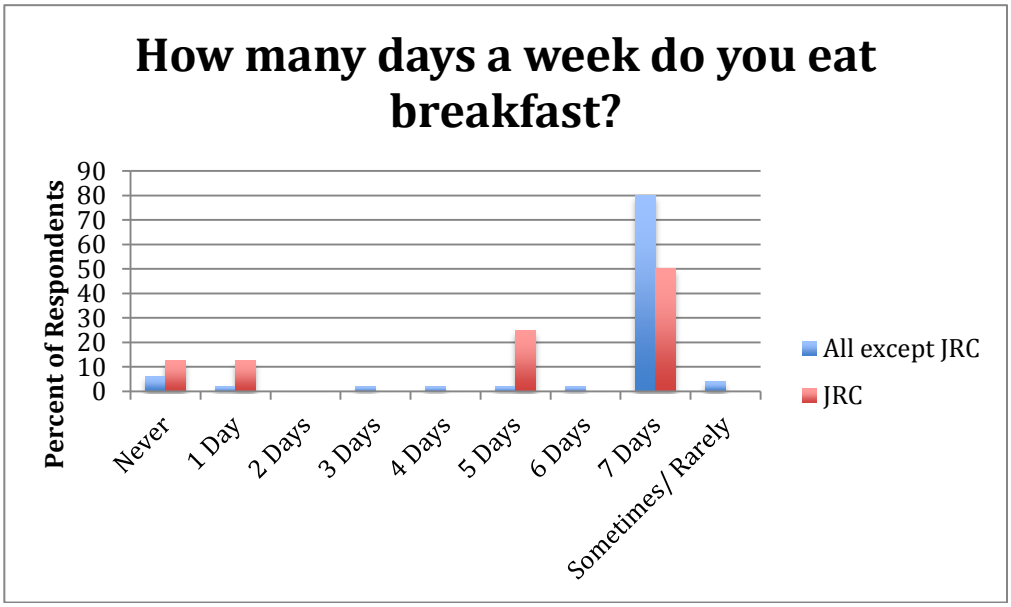

Figure 20: Percent of JRC Students who Eat Breakfast by Days per Week

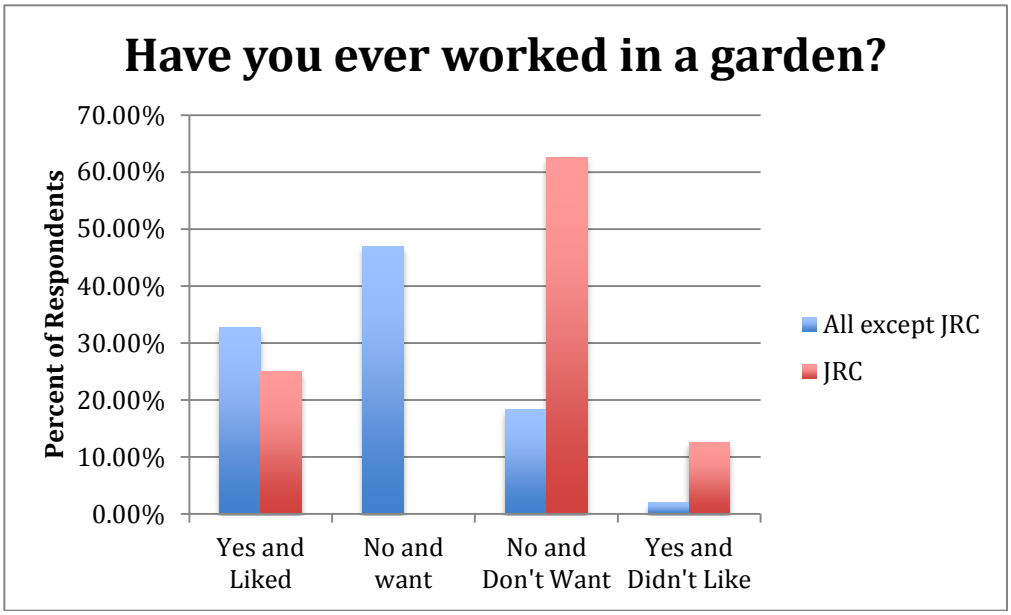

Figure 21: Percent of JRC Students who Have Experience with Gardening and their Desire to Continue or Try it for the First Time

Appendix II- Survey Results:

Sample Survey

1. Introduction and Plate Activity

Hi, We are students working with BCAC on a food and garden project for Morningside. We are trying to figure out what kids in this neighborhood normally eat. Thanks for taking our survey!
You have 4 plates in front of you. Please mark them as B, L, D, and S, for breakfast, lunch, dinner, and snack.
a. On the "B" plate, list *what you ate for breakfast*. Then draw it and label each food.
b. On the "L" plate, list *what you ate for lunch*. Then draw it and label each food.
c. On the "S" plate, list *what you ate for ALL YOUR SNACKS TODAY*. Then draw it and label each food.
d. On the "D" plate, list *what you ate for dinner*. Then draw it and label each food.

2. Count the number of times you eat each of the following foods at each meal, then write it down in the boxes.

	Breakfast	Lunch	Snacks	Dinner
Fruit				
Vegetables or salad				
Starch (bread, cereal, pasta, rice)				
Salty snacks (chips, nuts, popcorn, etc)				
Meat				
Desserts (candy, baked goods, ice cream, cookies)				
Other (please write the food)				

3. Please Answer the Following Questions

3. How many nights a week do you **EAT** dinner somewhere outside your house? Where do you eat?

4**.** Do you eat breakfast? If yes, how for many days each week?

5. If you do eat breakfast, how many days a week do you eat breakfast outside of your house? Where and what do you eat?

6. How many days a week do you eat a snack outside of your house? Where and what do you eat?

7. What is your favorite school lunch?

8. Have you ever worked in a garden or grown your own food? Yes/ no?

9. If not, would you like to try that or learn how?

10. If yes, how was working in the garden or growing food?

Sample Plate Responses


L
S
milk
cookies


D
Pissa

Sample Table and Survey Question Responses

Morningside Table

2. Count the number of times you eat each of the following foods at each meal, then write it down in the boxes.

	Breakfast	Lunch	Snacks	Dinner
Fruit	X	X	X	X
Vegetables or salad	X	X	X	X
Starch (bread, cereal, pasta, rice)	X	X	X	X
Salty snacks (chips, nuts, popcorn, etc)	X	X	X	X
Meat	V	V	V	V
Desserts (candy, baked goods, ice cream, cookies)	X	X	X	X
Other (please write the food)	cerey	cereal	Cookis	goolash

Morningside Table

2. Count the number of times you eat each of the following foods at each meal, then write it down in the boxes.

	Breakfast	Lunch	Snacks	Dinner
Fruit	yes	yes	yes	no
Vegetables or salad	no	yes	yes	yes
Starch (bread, cereal, pasta, rice)	Cereal	rice	rice	Pasta
Salty snacks (chips, nuts, popcorn, etc)		nuts	chips	
Meat		Hot dog		steak
Desserts (candy, baked goods, ice cream, cookies)		Cookies	Cand ice cream	
Other (please write the food)				

Morningside Table

2. Count the number of times you eat each of the following foods at each meal, then write it down in the boxes.

	Breakfast	Lunch	Snacks	Dinner
Fruit				
Vegetables or salad				
Starch (bread, cereal, pasta, rice)				
Salty snacks (chips, nuts, popcorn, etc)				
Meat				
Desserts (candy, baked goods, ice cream, cookies)				
Other (please write the food)		chip	cake	

Morningside Survey

3. How many nights a week do you **EAT** dinner somewhere outside your house? Where do you eat? in my house

4. Do you eat breakfast? If yes, how for many days each week?
7 Days

5. If you do eat breakfast, how many days a week do you eat breakfast outside of your house? Where and what do you eat?
In my house

6. How many days a week do you eat a snack outside of your house? Where and what do you eat? 11 Days in the house

7. What is your favorite school lunch?
meltorell sticks

8. Have you ever worked in a garden or grown your own food? Yes/ no?
NO

9. If not, would you like to try that or learn how?
NO

10. If yes, how was working in the garden or growing food?
never did it

Morningside Survey

3. How many nights a week do you **EAT** dinner somewhere outside your house? Where do you eat? 9

4. Do you eat breakfast? If yes, how for many days each week? Yes 7

5. If you do eat breakfast, how many days a week do you eat breakfast outside of your house? Where and what do you eat? 1

6. How many days a week do you eat a snack outside of your house? Where and what do you eat? 0

7. What is your favorite school lunch? TOUCO

8. Have you ever worked in a garden or grown your own food? Yes/ no? no

9. If not, would you like to try that or learn how? learn how

10. If yes, how was working in the garden or growing food?

Appendix III: Stakeholder Interviews

APPENDIX III: Interview Notes

1. Thom Pecoraro
2. Katelynn Chapmann
3. Pete White
4. Robert Cornwall
5. Nate Joyner
6. Hannah Bracken
7. Gail Krumpholz
8. Susan Donahue
9. Romero Davaro-Comas
10. Slyvana Bryan

Thom Pecoraro

In our interview with Thom Pecoraro, we discussed some of the difficulties he had starting the garden and some of the success that it has experienced along with its lasting impacts. Mr. Pecoraro said he initially faced some opposition from the community for multiple reasons, such as the fact that he is from the area, he is a landlord, and because he was seen as taking away a green space from the children. There was even a petition started to stop the garden from being planted. Yet after the garden was built the community members embraced it and one fourteen-year-old told Mr. Pecoraro that he was initially upset that they planted a garden in the lot because he use to play football there, but now he was happy that it was there and would stop by sometimes and work in the garden. Mr Pecoraro's recommendation was to have good communication with the surrounding community. Most of the opposition that he faced was from people who did not understand what he was doing; therefore open communication can decrease the initial friction that a project might face.

Westside Farm Project was a success because it was able to produce large quantities of food that was then distributed to food pantries, and to volunteers who worked in the gardens. Another successful aspect of the community gardens is that it got the children involved and educated them about the origins of their food. Not only did it introduce children to gardening, but it planted an interest that would remain with the children. Mr. Pecoraro said, "the kids almost universally enjoyed working in the gardens," and that "it is an experience that will stick with the kids for a lifetime." Then when asked about the impact of the Westside Farm Project on the neighbourhood Pecoraro said, "The biggest impact of the Westside Garden Project is that it proves that community gardens can work in a blighted community. I think that is why you now see all of these community gardens popping up." Mr. Pecoraro is proving himself right by planning on opening a new community garden on Grove Street in the Morningside neighborhood in the near future.

Katelynn Chapmann, *Founder and CEO of the Berkshire Dream Center*:
The Dream Center is a Christian-based NGO dedicated to serving the Morningside neighborhood. With programs such as Adopt a Block, in which volunteers walk up 8 adopted streets in Morningside every other Saturday to knock on doors and ask if residents need help with anything, and Neighbors helping Neighbors, in which residents can write down things they need anonymously so that other more fortunate residents can donate those specific things, the Dream Center offers an inspiring example of working for the community from within the community. The Dream Center was officially established as a 501c3 non-profit in July of this year, and they moved into the donated house on 41 Cherry Street, from which they offer clothing, food, hot coffee, discussion, bible study, and a listening ear. "Everything

that we provide is because there's a need for it. We just are out there on the streets and meet the need that's right in front of us," explained Chapmann.

When we asked Chapmann what the primary need was in the neighborhood, she immediately answered "food." When we asked whether people asked for or cared about eating fresh produce, she said "a lot of people are so poor that they can't afford healthy food. And for us, our food pantry, we can't offer extremely healthy things because we ourselves can't afford to give that to people." When we asked about whether residents have access to healthy food if they *could* afford it, she said "they could go to any local grocery store and they could get it there. But what you eat is what you crave. And so they're used to eating that stuff. That's they're familiarity. They're not going to choose to pick something healthy. I think what would be really helpful would be to have someone come in and do education on healthy food." So the first problem with getting eating healthy produce into residents' diets is price. But the second is that people might not be interested in buying and eating it. However, Chapmann also described a day when a local farmer donated a bunch of fresh produce to the Center: "When a local farmer brought that stuff they were so excited, they took it right away," demonstrating that if fresh food were donated it would be very well received.

Chapmann was very positive about how the community would respond to our project to connect the greenhouses with the school lunch system: "I think they'd think it was great. I think they'd be really receptive in thinking it's really wonderful for the kids." As we discussed the community garden to be built in the back of the building, she added "I think it would be good for all of them to be involved in a

gardening project…because a lot of the people on this street are unemployed, so during the daytime they need something to do."

Chapmann offered her vision of the Morningside neighborhood's continued progress: "I think it would be best for everyone to establish a sense of community…For a neighborhood to improve is for everyone to realize the potential in themselves and to establish a sense of hope in themselves…and then also to get involved in things in their community and then together work with one another. But it all starts with the decision for them to want to change their circumstance or situation…and that's why we meet with people one on one. You can't do any good unless you know the people." Within the same vein, when I asked Chapmann what she would do if she took on our project she said, "I think it would be good to have students involved but also some organizing people, like adults from the community who want to volunteer…have one section of the garden for people in the community who want to be a part of it and want to benefit from it and one for students…just to have that accessibility where people know they can go and get things if they want to. Because I think a lot of people would." Chapmann believes the greenhouse and garden projects could do a great deal of good for both the students and the adult residents of the Morningside community if all were involved in the work and benefits of growing food.

Pete White, *Morningside Resident and City Councilor, member of Morningside Steering Committee*:

Pete White lives four blocks from Morningside elementary and he has lived in Morningside for the last 31 of his 33 years of life. When asked about how the community has changed he said "growing up I don't think my parents had a problem

with me riding my bike from Blunket Street over to the school. Now I think there are more worries…the perception of this neighborhood has gotten worse, I say perception and perception becomes a reality…I've always held to the fact that 99% of the people in this neighborhood are great, and then 1% give us a black eye." White explained that the most important things the steering committee can do is to get members from all over the neighborhood together, getting to know each other: "anytime you can get people to gather…just get neighbors talking to each other…it's just like Sesame Street. If you don't know who the people in your neighborhood are, you're never going to have a good neighborhood." Therefore, he was very responsive to the idea of a community garden and/or greenhouse as a community hub, an area "where people can focus good energy and get[] people in to do things collectively and be[] more involved in their community…They can go to work, come back, maybe work in a garden for a few hours, volunteer on a project, get to know their neighbor or people a few streets away."

In terms of people's access to food and produce, White said "There's some people who get everything they need from Zenner's, which is the corner Store on Tyler and Pine. They go to Price Right. They get whatever they can cheaply. A lot of the time when you talk local, you start talking more expensive…It's a poor neighborhood. They're renting and they're making it by. They don't worry if it's local, they worry about how do they get any food on the table…We need more accessible local food." White believed that there would be a positive response to increasing healthy produce in students' diets, but residents are more focused on providing any food

than healthy food: “especially in this neighborhood, you can’t tell someone that Walmart is bad when Walmart is the only thing they can afford.”

White believes the community would welcome our project as a way to invest in the Morningside community. “I think it could really take off if it’s marketed right, if it’s not sees as some big corporation coming and doing it, if it’s got a neighborhood feel and people feel ownership,” said White. White thought that if we could “get this place going” then “people will know the Old Eagle Club building is vibrant…so they’re not going to want to do something bad around it, because they know there will be people around…That’s the best way to get rid of crime, have so many people around that you can’t do anything…If this place is successful it will shine a light on Adams Street, on First Street.” White believes that “it’s the perfect time to redo this whole corridor. First Street is really what we need to focus on now. What’s great about here is that it’s central…right next to downtown and it connects into the neighborhood.”

Envisioning the future of this project, White encouraged us to “just really get the message out of how people can get involved.” He believes that Anthony’s building could become a neighborhood center “between here, the school and the dream center, I think you could really find good synergy to collect a lot of resources, even if it is a place where the community could get together to talk about what resources they could share.”

Robert Cornwell, *Pittsfield Community Development Specialist*, and **Nate Joyner**, *Neighborhood Initiative Liaison*:

Cornwell and Joyner told us that at the last Morningside Steering Committee meeting, Anthony Barnaba announced our project initiative “and there was a

positive reaction from the members present. They thought that was a good reuse of the building…They were encouraged by the idea of involving local students in the program," said Joyner.

We discussed the success of the community garden located in the West Side neighborhood of Pittsfield, where BCAC has allowed volunteers to take over vacant city land to grow a raised bed garden with much student help. Cornwell noted "It's been great having the local kids get in there…It's been wonderful to get these kids first-hand experience to actually see that vegetables don't just come off a shelf as a supermarket…These kids are eating things they would not have eaten before. They would have gone 'yuck.' They're not now." West Side garden gives some of their produce to the Christian Center located up the street, a "social service agency" that assists "some of the poorest folks in Pittsfield." The Christian Center uses produce from the gardens to provide free lunches for those in need.

Cornwell noted that community gardens are a great asset to the neighborhood but they can't produce all year, and that garden produce may be costlier for schools than other foods: "It's my understanding that schools have certain budgets, which translates to a maximum amount to spend per lunch, and that it is difficult for schools to stay within that budget when trying to purchase other more healthier choices that cost more." Our plant to implement greenhouse that can produce all year and donate free produce to the school would combat both of these obstacles.

Hannah Bracken, *BCAC Tutor and Gardener*

Mrs. Hannah Bracken is a Berkshire native and she has worked on farms for the past four years. She garden at various sites in Pittsfield last summer (2010) and has been doing so ever since. Additionally she tutors students throughout the Pittsfield

area at various institutions such as the Silvio O. Conte School and the Juvenile Resource Center. She has been a tutor for three years.

When asked about the availability of fresh food in Morningside, she replied that it could be vastly improved. She explained how at the Juvenile Resource Center, for example, a typical lunch consists of a cheeseburger, a bag of chips, and a juice box. "I would love to see salads," she continues. She strongly believes that if fresh food was available the children would eat it, "If it's there, they'll take it."

Bracken explained how the Juvenile Resource Center (JRC) is a drop-out prevention program for middle-school aged and high-school aged students who were suspended from their respective schools. Thus the JRC provides tutoring and small classroom to one-on-one instruction for the students.[1]

Bracken briefly responded to her knowledge of the BCAC Garden of Westside (formerly known at the West Side Garden). She explained how last June, when she first started working with the project, that the garden was in great shape in regards to that it produce a high yield of crops. "It was a C.S.A. free for all," as the children who worked in the garden were able to bring the produce back to their homes. In addition to the production of fresh food the garden secondarily served as a social center for the local community. For example there were different workshops and activities held at the garden and, "…it became a hangout spot for kids who directly lived around the garden." Thus the garden enabled unfamiliar children to meet and know each other in a positive setting.

[1] Interest in JRC was due to its possibility as a viable tenant for the greenhouse.

When asked about the proposed project of a public garden at the Rice Silk Mills site in Morningside, Bracken shared the importance on the type of garden that should be implemented. For instance Bracken explained how BCAC how to convince the developers, Rees-Larkin Development LLC, to repurpose the existing brick structure to create raised beds so the gardening can be accessible enough for disabled residents. Bracken also suggested to them that they create a communal garden versus a large plot that is subdivided into different family-managed sections. She reasoned that the former would be less intimidating for new and novice gardeners and would allow children without parental support to be involved in the garden. Because of the gardens close proximity to the school, Bracken believes that incorporating some educational programming into the garden with the Morningside Community School would strengthen the success and interest in the community garden.

She also mentioned Jim McDonald, the coordinator of the Horticulture Program at Pittsfield High School and a person named Narrissa, who is the director of the Nutrition Center as additional people to interview.

Gail Krumpholz, *Chairperson of Morningside Steering Committee*

Interview with Gail Krumpholz, Chairperson of the Morningside Initiative:

1. What's been your involvement with the Morningside neighborhood?

"My involvement with the Morningside neighborhood began about 18 years ago when my husband, at the time, and I purchased a home on Third Street. I divorced about 4 years later, my situation being with a 2 year old daughter it was wiser both practically

and financially to stay in my home on Third Street. I became very involved with my neighbors and as my daughter began in the school system I became more involved with the connection between the city and the Morningside neighborhood."

2. How has the Morningside neighborhood changed since you first encountered it?

"The Morningside neighborhood has become more community based since I have lived here and there are also many areas of physical improvement."

3. How would you like to see the neighborhood improve?

"I think the biggest improvements that could be made in the Morningside neighborhood would be that of absentee landlords, and improvements in income properties which would attract a more desirable clientele."

4. What has worked and what hasn't worked in previous Morningside neighborhood initiatives?

"I believe all of the projects that we have pursued in our neighborhood have been successful, Morningside Pride Night, Block Party, Neighborhood Cleanup etc."

5. How does Morningside relate with the city of Pittsfield?

"The city works very closely with the Morningside Initiative in using us as spokespeople for our neighborhood. The city respects our input, and uses our information in a serious manner for all of our community issues."

6. How would you describe fresh food availability in Morningside?

"I am not readily aware of many fresh food availability options in our neighborhood. I know that P.H.S. has done some work in this area as well as BCAC but I am not familiar with any specific programs."

7. How do you think the community will respond/ is responding to Anthony's redevelopment plans for the building on 146 First Street (building a greenhouse and community garden)?

"I think this project will be well received by the neighborhood especially if the neighbors are asked to become involved on some level. I find in this neighborhood the more people are encouraged to take part in certain projects the more receptive they are to that project. We like being "kept in the loop"."

8. How do you think the community will respond to a project that brings local produce into the school system?

"I think the neighborhood will be happy to see local, healthy produce brought into the school system."

9. If you were in charge of this project, what would you do?

"If I were in charge of the project I would make sure I would involve as many locals as possible, volunteers and paid positions if possible, advertise to Morningside residents and young adults for full or part time positions if needed - if not- just to incorporate their input on some level so the feel as though this is something of their own."

Susan Donohue, *Former Intern at East New York Gardens, Williams College'13*

When asked about the area of East New York City, Donohue went into some detail explaining how the neighborhood was struggling to sustain itself with high rates of crime, poverty and abandoned settlements in addition to low levels of economic activity, job employment, and green space. Donohue explains how police officers are a constant presence in the neighborhood. The extremely high occurrence of crime was due to the significant presence of nationally-known gangs such as the Bloods, the Crips, the Latin Kings, and the Trinitarios. Therefore, businesses were reluctant to establish stores in East New York due to the likeliness of robberies and building defacement by graffiti. Small businesses could not sustain themselves in East New York and left many abandoned buildings and residential areas.

The beginning and current work of the garden has provided some light of hope for East New York. Donohue explained how the garden enabled residents to take part in creating a better community. Not only was fresh food provided who did not have convenient access to it, but also it gave people opportunities to work. The community garden then sparked other community development projects. After Donohue's experience with the garden, New York City Department of Parks and Recreation was more willing to fund and build a public playground in the community. Initially a project like this would easily be destroyed by rebellious resident, but the playground remains usable and enjoyed by many children. More future public project seem to be implemented in East New York's new future Donohue believes.

Ramiro Davaro-Comas, *Nuestras Raíces, Economic Development Director*

Ramiro Davaro-Comas shared a brief history of Nuestras Raíces and today's operation. The program started in 2005 when community members pull together and wanted to renovate many abandonment lots that characterize Mount Holyoke at the time. Most of the community were recent Puerto-Rican immigrants and had previous farming experience. Therefore they put their past experience to use and received government funding to create various gardens on a couple of lots. Today their programs has grown to over 33 acres and includes some greenhouses and hoop gardens. The program today provides tools and trains farmers how to grow their own food.

Slyvana Bryan, *Pittsfield Food Service Director*

Sylvana Bryan's role in the Pittsfield School system is as the School food service director. In charge or meal program in city of Pittsfield- breakfast lunch snack, after school snack. We have fresh fruit/ veggie programs in three needy schools. We have little over 6000, 1100 breakfasts, and under 42000 lunches each day. There are certain regulations: USDA, state, and she administer those administrations.

Meals have to meet certain requirements: calorie requirements depending on age group, various fat/ vitamin requirements. Pittsfield Schools are a food based district: they deal with actual food components (versus nutrient based). They have to offer a protein, a starch, a fruit, a vegetable, and milk for each lunch. There are

also requirements from the USDA that regulate offering vs. serving: the students must actually take 3 out of five offered foods.

The rules used to require that the School system buy from reputable vendors that would have to be certified. This prevented the schools from buying from small farms. The new regulations relaxed this requirement, and also increased the portion size of fruit and increase the variety of vegetables

Summer program in Pittsfield exists. Morningside School is an "open site." The government has deemed certain sites as needy, based on income, etc. Open site means that ANYONE (18 and under) can go get free lunch and breakfast, no questions asked. Last summer numbers were low, perhaps because of how hot the summer was. There have been snack programs for the summer schools, but this was eliminated this year because increased availability of lunch and breakfast.

The dates for the summer program are: school ended June 21/22. It started as an open site during the summer program on the 27th. It ended the Friday before school started again. Lunch and breakfast are provided almost completely year round.

There are barriers to increasing produce in labor, when you're doing anything fresh. But the fundamental barrier is cost. Have to get lunch out at 11, no matter what. Fresh vegetables are labor intensive. Bryan does not see any opposition to the fruit part. The kids love the fruit, whether it's fresh or the canned chilled food. The vegetables are a push. They like their corn. Broccoli is coming along. They have been doing fresh broccoli spears for a while.

On the topic of fresh produce availability in Morningside, Bryan said, "At home, they're not getting the right amount. I think some families; their food security is very

limited in that area. I think some families pay really good attention to that, but some families, if you're not used to eating fresh fruits and vegetables yourself, you're not going to give that your children."

In response to how Mr. Barnaba's project will be received, Bryan said, "I think it will work just fine. There may be little hurdles or road blocks. I don't see it as being a show stopper. I think the community will be really receptive to it. The more, the better. If it's something we sustain year round, that would be great. I think it's a great project". Bryan currently partners with vendor who works with farms, provides a list of available food, and matches that with the menu. They frequently buy farm-fresh apples.

Conte School has a garden on the school grounds. During the summer program, they got beet greens, fresh dill for the potato salad, green beans, some tomatoes, salads, greens, beans, and some cabbage. Bryan said, "I think we could do better; it's a small garden. But it's good even to introduce the kids to it. It's a community garden, so we can't really be selfish and take all of the food." She also said, "Kids, especially at that age, like hands on activities." She said that "We should start cooking classes for young parents in order for fresh food to begin to be served in the homes."