



# **Need and Asset Assessment of Child Nutrition in Tompkins County**

A report detailing the results of a comprehensive evaluation of the resources available and the unmet needs related to child nutrition in Tompkins County, NY

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**Final Summary Report  
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## **NEED & ASSET ASSESSMENT OF CHILD NUTRITION IN TOMPKINS COUNTY EXECUTIVE SUMMARY**

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At the request of the Park Foundation, Horn Research conducted a comprehensive needs and asset assessment of child nutrition in Tompkins County. Well over a million dollars have been granted to various programs serving youth in Tompkins County in the past 5 years to improve nutrition and reduce food insecurity, but there has been little concrete information on the impact of these programs or the ongoing gaps and needs. This needs and asset assessment hopes to provide baseline information to benchmark improvements and guide future programming efforts.

The project plan for the assessment included: 1) a gap analysis of available resources and the needs of children related to nutrition and food security with a focus on determining whether children within various demographic groups face more or different challenges; 2) the identification of key structural and attitudinal barriers; and 3) the identification of innovative programming options that may be implemented to improve childhood nutrition in Tompkins County.

### **Methodology**

Surveys were conducted with parents and students in an effort to understand their viewpoints and experiences related to food and nutrition. Horn Research was able to gain the support of two school districts in the county to conduct student and parent surveys: the Ithaca City School District (ICSD) and the Lansing School District. In an effort to expand participation beyond ICSD and Lansing, the link to the parent survey was also distributed through list-serves and in online Facebook groups such as parents groups and community groups. A total of 640 parent surveys and 364 student surveys were completed.

Qualitative interviews were conducted with stakeholders from non-profit programs and school districts as well as with parents and students. The list of stakeholders was compiled with an effort toward receiving feedback from a variety of viewpoints as well as from all areas of the county. Qualitative data was gathered from parents and students from each school district.

Secondary data from a variety of sources (including, but not limited to: US Census, New York State Education Department, New York State Department of Health, New York State Open Data) were explored and analyzed to provide context to the Tompkins County landscape. In addition, agency websites and annual reports were reviewed to provide a greater understanding of the types of assets available in the county, the criteria for participating, and the overall level of participation related to the level of need.

### ***Food Security***

Food security, or having reliable access to a sufficient quantity of affordable, nutritious food, is at the base of understanding the state of child nutrition in Tompkins County. A child's food security is a function of family resources and the availability of and access to community resources and can have dramatic impacts on child outcomes. Research has shown that food insecurity has many adverse consequences for children's physical and mental health and impacts, among other things, academic performance, emotional development and social skills. Based on Census data and estimates from Feeding America, approximately 17-18% of children in Tompkins County are at risk of being food insecure. Data from the parent survey found that 19.5% of respondents were likely to be at risk of being food insecure.

### ***Quality of Diet***

The effects of food insecurity are not only dependent on the quantity of food, but also the kind and quality of food. Research has shown that food insecurity can reduce children's consumption of adequate micronutrients and put them at greater risk of obesity and subsequent health issues. Data from the New York State Education Department (NYSED) show that the percent of children in Tompkins County who are overweight or obese has decreased since 2010 and is well below the NYS rate of 34%, but remains relatively high at 28.1%. There are noteworthy differences in body weight data based on district. Newfield (46.6%) and Groton (38.4%) have the highest percentage of children who are not at a healthy weight and Ithaca (28.1%) and Trumansburg (27.3%) have the lowest percentage.

Data from the parent survey showed that families identified as at risk for being food insecure reported eating fast-food and pre-packaged meals more often and eating dinner together and eating fresh fruits and vegetables less often than food secure families. In addition, families that are food secure are statistically significantly more likely to say the food they eat is healthy and that healthy foods are available to their family.

Data from the middle and high school survey found that nearly 18% of middle and high school students eat fast food for lunch, and almost 14% eat lunch from a convenience store or gas station, at least once per week.

When asked to indicate what challenges they faced in providing healthy food for their families, parents most frequently said that healthy foods were too expensive (29.5%), they didn't have enough time to shop for or cook healthy foods (29.5%) and that their children don't like healthy foods (24.4%.) Food security status had a significant impact on how frequently parents said they experienced challenges related to trying to eat healthy foods. Seventy percent of parents at risk for food insecurity said that healthy foods are too expensive as compared with 20% of food secure parents. Significantly more food insecure parents also said not having enough time to shop or cook healthy foods was a challenge.

### ***Supplemental Nutrition Assistance Program (SNAP)***

SNAP is the program formerly known as food stamps. It is a federal nutrition program that helps families purchase food at grocery stores, convenience stores, and some farmers' markets and co-op food programs. In 2015, 2,904 Tompkins County children aged birth-17 years (18.5%) received SNAP benefits. SNAP participation is typically higher among households with children with an estimated 93% of eligible households in NYS participating in 2015. The primary barriers to enrollment in SNAP are the restrictive eligibility guidelines, the long and complicated process, and privacy concerns.

### ***Special Supplemental Nutrition Program for Women, Children and Infants (WIC)***

WIC is a federal assistance program of the Food and Nutrition Service (FNS) of the USDA charged with improving the healthcare and nutrition of low-income pregnant women, breastfeeding women, and children under the age of five. WIC participation in Tompkins County has been steadily declining over the last four years. The number of participants with active checks declined from 1,386 participants in 2014 to 1,184 in 2017. According to Census data, approximately 1,387 families in Tompkins County have children under age 5 and with incomes below 185% of poverty which suggests that there may be more families that could be served by WIC, but are not. The most commonly reported barriers to participation in WIC were negative shopping experiences and a low perceived value of the WIC food package in comparison to the amount of time and effort required to meet program obligations.

### ***National School Lunch Program (NSLP)***

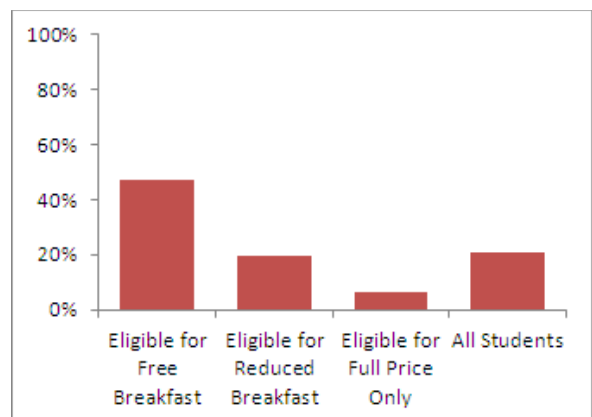
The NSLP provides low-cost or free school lunch meals to qualified students through subsidies to participating schools. Students are eligible for free breakfast and lunch if their family's income is below 130% of poverty and are eligible for reduced price meals if their family's income is below 185% of poverty.

In Tompkins County, the NSLP is an important resource in providing meals to children. During the 2016-2017 school year, Tompkins County schools served 405,978 breakfasts and 902,368 lunches to students. The percent of children enrolled in the NSLP has increased from 36% in the 2009-2010 school year to 40% in the 2015-2016 school year.

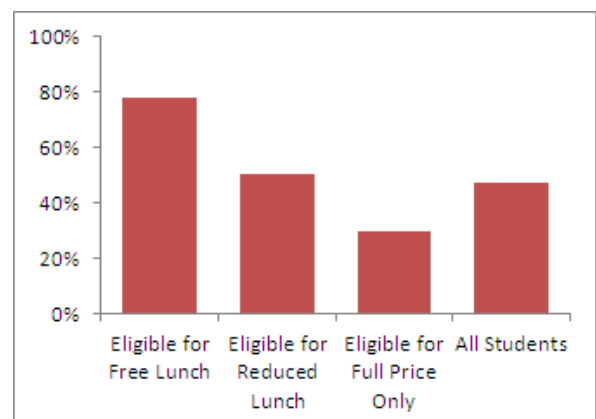
There is wide variation in the percent of children enrolled in the NSLP program across districts. The highest percentage of enrollees is at TST BOCES (71%) followed by Newfield (55%), Dryden (46%) and Groton (44%).

While enrollment in NSLP is relatively high, the actual participation in meals varies substantially by both meal and program eligibility. Breakfast participation is very low across all eligibility groups. Fewer than half of students eligible for free breakfast participate in the program and less than 1 in 5 children eligible for reduced price eat school breakfast. Only 6% of students paying full price

Average Daily Participation in School Breakfast



Average Daily Participation in School Lunch



buy school breakfast.

There is greater participation in lunch with the average daily participation for students eligible for free lunch approaching 80%. However, only half of students eligible for reduced price lunch participate and less than a third of students paying full price eat school lunch.

Some of the key barriers to the NSLP include the tight budgets food services departments must maintain, the quality and taste of foods, the variety within school meals, the nutritional value of the food served, difficulties meeting special dietary needs, the amount of time and environment allowed for meals, portion sizes, and communication between parents, students and schools about food and nutrition.

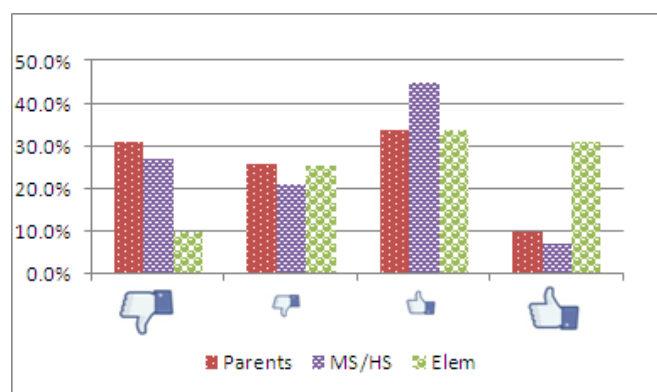
### *Budget*

For the bulk of the school districts in Tompkins County, the food services program are self-supporting and must generate enough revenue to cover all expenses including food, labor, and equipment. Most districts rely heavily on reimbursement from the NSLP and on government commodity foods. Overall, food services departments have very little money in their budget for food costs. For example, during the 2016-2017 school year ICSD generated \$1,674,405 in revenue from sales of meals and reimbursement from the NSLP averaging \$3.13 in revenue per meal. Of that revenue, \$569,325 was spent purchasing food (not including commodity foods) for an average of \$1.06 per meal spent on food costs.

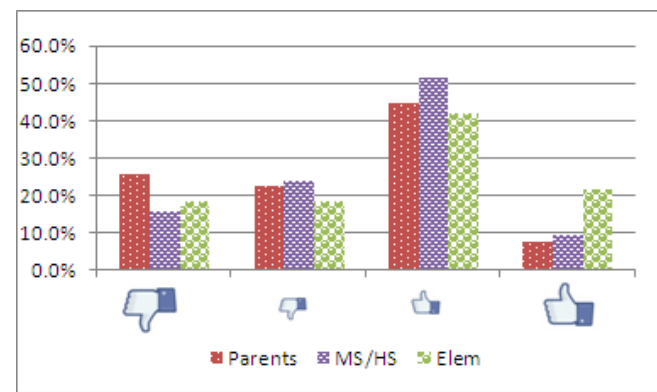
### *Taste and Nutrition*

Of parents who indicated that their child ate school breakfast at least some of the time, just over half (56.7%) indicated that they thought the breakfast did not taste good. Students had a higher opinion of the taste of school breakfast with just over half of middle and high school students and two-thirds of elementary students giving a “thumbs up” to the taste of school breakfast. About half of parents and just over 60% of middle and high school students and elementary students agreed that school lunch tastes good.

How School Breakfast Tastes



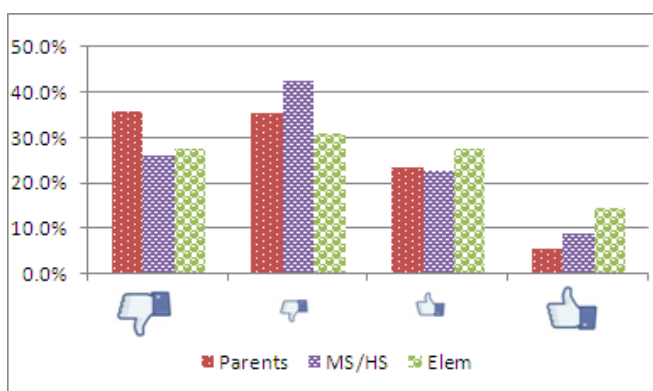
How School Lunch Tastes



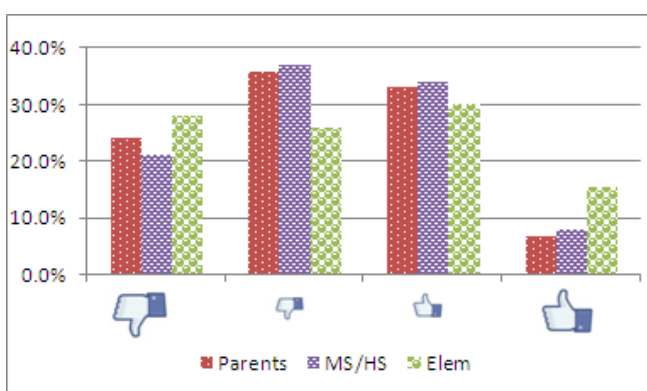
The vast majority of parents (71.3%) and middle and high school students (68.5%) said they did not think school breakfast is healthy. Fewer, but still the majority of, elementary students (58.4%) agreed.

School lunch fared slightly better in terms of how healthy survey respondents think it is, but the majority indicated they think school lunch is not healthy. Sixty percent of parents, 58.1% of middle and high school students and 54.1% of elementary students gave lunch a “thumbs down” when asked how healthy their school lunch is.

How Healthy School Breakfast Is



How Healthy School Lunch Is



### Time to Eat

When asked a series of questions about whether their children have time to eat meals either at home or at school, over half of parents indicated that their child does not have enough time to eat school breakfast and over a third said their child does not have time to eat breakfast at home. About half of parents said their child doesn’t have enough time to eat school lunch and nearly three-quarters said the lunch lines are too long.

Surveyed students were much less likely than parents to say they don’t have enough time to eat school meals with fewer than 20% of students saying they don’t have time to eat breakfast either at school or at home and fewer than 10% saying they don’t have enough time for lunch. However, a quarter of elementary students and nearly half of middle and high school students reported that lunch lines were too long.

### Portion Size

About an equal number of elementary students (12.3%) and middle/high school students (13.3%) said they’re still hungry after eating breakfast. More middle and high school students (24.3%) than elementary students (13.7%) said they are still hungry after eating lunch. How often students eat school meals has a bearing on whether they say they are still hungry after eating. There is a statistically significant correlation for both elementary students and middle and high school students between the number of days they eat breakfast and whether they said they are still hungry after eating breakfast. Students who eat school breakfast were more likely to say they were hungry after eating. Survey results show a similar finding for school lunch. Both elementary and middle and high school students were statistically more likely to say they were still hungry after lunch the more days they eat school lunch.



### ***Child and Adult Care Food Program (CACFP)***

CACFP is similar to the NSLP program in that it provides federal reimbursement for meals provided at child care centers, family or group day care providers, and after school programs. With CACFP, care providers buy and serve meals or snacks to all children and receive reimbursement. In Tompkins County, fewer than half of eligible care providers participate in CACFP. The lack of participation by all types of care providers represents a loss of federal dollars that could be beneficial to the county and improve children's access to healthy meals. Stakeholders noted several barriers to participating in CACFP including low reimbursement and demanding record keeping and menu planning requirements.

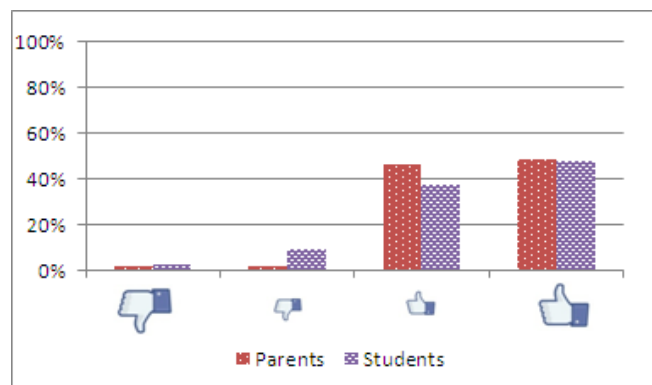
### ***Summer Food Service Program (SFSP)***

The SFSP provides free meals to children in low-income areas during the summer months. In Tompkins County, six open sites operated during the summer of 2017 with two sites in Dryden, one site in Groton, two sites in Ithaca, and one site in Newfield. In addition, meals were served at 14 summer recreation programs. A total of 40,872 meals (including snacks) were provided to Tompkins County children through the SFSP. Assuming the number of food insecure children is 3,020 as per the Feeding America estimates, SFSP is serving less than a third of the number of children who may need support. Summer meals are reaching less than a quarter of the children enrolled in NSLP.

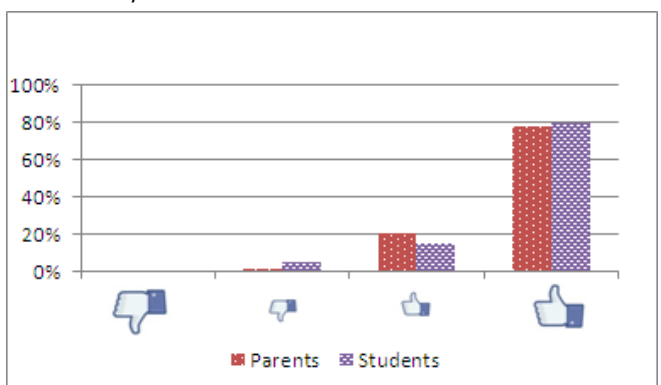
### ***Fresh Snack Program***

The Fresh Snack Program, a program of the Youth Farm Project, provides a fresh fruit and vegetable snack two or three times per week to students at five of the eight ICSD elementary schools. The snack is locally sourced from area farmers and processed at an Ithaca based food processing business. The Fresh Snack Program distributes to approximately 28% of elementary students in the county. Based on enrollment, the Fresh Snack Program distributes an estimated 114,000 servings of fresh produce per year to area children. Assuming that eight servings equal a meal on a vegetarian diet, the Fresh Snack Program distributes the equivalent of 14,250 meals per year to Tompkins County students.

How Fresh Snack Tastes



How Healthy Fresh Snack Is



Nearly three-quarters of students who attend schools that participate in the Fresh Snack Program said they eat the snack always or most of the time it's offered. Nearly all students and parents gave a "thumbs up" for how the snack tastes and how healthy it is. Stakeholders said the limited resources of the program prevent the program from being able to be in all schools creating equity issues. The Fresh Snack Program likely does not have a significant impact on food security due to the small portion size and frequency of availability. Over half of parents said they believed that their child was still hungry after eating the Fresh Snack.

### ***Food Bank of the Southern Tier (FBST)***

The food pantry network supported by the FBST served an average of 3 days of meals a month to nearly 2,000 children monthly during 2016 for a total of 212,085 meals. FBST has placed a priority on increasing the amount of produce distributed by agency pantries and has met with significant success in Tompkins County. In 2015, over 71,000 pounds of produce were distributed through Tompkins County food pantries. This increased to 132,000 pounds in 2016. The amount of produce distributed through pantries varies dramatically by region. The food pantries in Dryden, Groton and Lansing distribute significantly less produce as a percent of total pounds than pantries in other school districts in the county. The Newfield pantry nearly doubled the amount of produce they distributed, the Trumansburg pantry nearly tripled their produce distribution and pantries serving the ICSD region increased produce distribution by almost 85% between 2015 and 2016.

FBST also provides packs of food for the weekend to children at risk for food insecurity through its Backpack Program. FBST partners with schools and districts to distribute the packs to children on Friday to take home for the weekend. The reach of the Backpack Program is relatively limited. In the 2015-2016 school year, Tompkins County schools distributed 292 packs per week totaling approximately 63,000 meals for Tompkins County students. A recent evaluation of FBST's Backpack Program found that the complexity of the production process, the small amount of food in the packs, and the time and dollar costs are fundamental limitations of the program.

## **Nutrition Education**

The effect of nutrition education on children has been widely researched and has consistently found that well-designed nutrition education programs can lead to healthier food choices among children. Schools and non-profits in Tompkins County have engaged several efforts to provide nutrition education to children including offering nutrition information through health curricula and case study approaches, exposing children to brief marketing messages and taste tests, and through projects integrating gardening, cooking, studying, and eating. Despite the number of organizations providing nutrition education opportunities, there is very little assurance that every child receives equal and effective exposure. The majority of nutrition education programming is class, school or program based and comparable experiences are not available to all children.

### ***School-Based***

For the most part, school-based nutrition education in Tompkins County is scatter shot in nature. Interviews with school administrators and teachers across the county revealed that the majority of children in the county are exposed to very little nutrition education information and that there are limited efforts to teach children about healthy food choices. For the most part, nutrition education is not required nor is it available to all children equally. Nearly all school stakeholders interviewed noted that nutrition education is often only a brief element of students' health classes. Interviews with teachers and administrators in ICSD suggested that the majority of nutrition and health information available to students is integrated through a case study approach which offers teachers the opportunity to focus on a specific topic and use a cross-disciplinary approach to engage students. Overall, teachers, administrators and parents are pleased with the case-study approach and noted successful efforts to engage students in gardening and cooking. Despite the excitement and success of the case studies, it is clear that only a portion of ICSD students are engaged with nutrition-based case studies which dramatically limits the overall impact of the programming.

### ***Cornell Cooperative Extension-Tompkins***

CCE-Tompkins has a long history of providing nutrition education to adults and youth in Tompkins County. On average, CCE-Tompkins enrolls 115 adults and 50 youth in a 6-8 session EFNEP (Expanded Food & Nutrition Education Program) workshop series each year. In addition, in collaboration with the regional SNAP-Ed program (Finger Lakes Eat Smart New York), CCE-Tompkins' work includes both series and one-time lessons, social marketing and environmental interventions with schools and gardens. During the first quarter of 2017, FLESNY conducted 194 educational nutrition events reaching 3,291 adult and youth contacts. Several years ago, CCE experienced severe budget cuts in nutrition education resulting in staff cuts.

### ***Fresh Snack Program***

The Fresh Snack Program offers some nutrition information to schools in conjunction with the produce they provide. Schools have the responsibility to share the information with students and the implementation varies between schools. Some schools have students read the information during announcements while others send the information to the classroom for teachers to share. It is clear that the Fresh Snack Program's primary impact is providing students the opportunity to be regularly exposed to healthy fruits and vegetables that they may not otherwise have. The current level of nutrition education provided by the program is not robust enough to have much impact on its own, but it may contribute to the cumulative effect of other programs students' experience.

### ***Food Studies Institute***

The Food Studies Institute in Trumansburg has a cross-curricular program which engages children around food through the integration of art, geography, history, language arts, mathematics, science, writing and physical education. The lessons are participatory with students using all five senses to study whole foods, cook, create art, plant seeds, and write in journals. In addition, students prepare and consume food. The program has been implemented in the Cayuga Heights, Enfield, and Trumansburg elementary schools. Stakeholder interviews indicate that the curriculum created and conducted by the Food Studies Institutes is effective; however, the program is only implemented when funding has been made available through one-time grants. In order for the curriculum to be comprehensively integrated into schools and classrooms, long-term funding and staff committed either by the county, school districts or some other non-profit organization is necessary.

### ***Youth Farm Project***

The Youth Farm Project provides opportunities for ICSD students to go on field trips to their farm. While on the farm, students harvest and make fresh snack together while learning about nutrition. The field trips are popular among ICSD teachers and students; however, the farm only hosts field trips on Wednesday and Friday for five weeks in the fall which limits the number of children able to take advantage of the opportunity.

### ***Cool School Food***

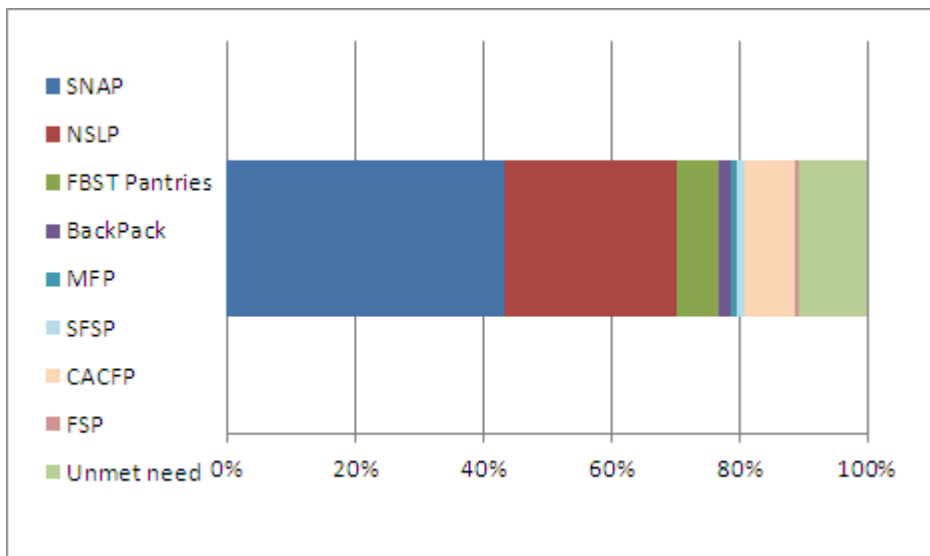
The Cool School Food program from the New York Coalition for Healthy School Food has the goal of integrating plant-based, made from scratch recipes into school cafeterias. The program developed four plant-based recipes for ICSD to add to their monthly menu. One of the Cool School Food recipes is offered as an option once a week to students as part of the school lunch. While some stakeholders mentioned the Cool School Food options as a successful aspect of ICSD's food service program, actual uptake of the food is relatively low. An evaluation of the program from 2015 found that only 5% of students buying school lunch chose the Cool School Food entrée. Information from students, parents,

and program observations indicate that uptake of the entrées have not increased substantially since then.

### Key Gaps

Taking into account the primary resources available to food insecure families with children, there is an estimated unmet need of approximately 343,059 meals or 10.3% of all meals needed, per year.<sup>1</sup>

Source	Meals
SNAP	1,437,624
NSLP	897,873
FBST Pantries	212,085
BackPack	63,072
MFP	34,344
SFSP	38,236
CACFP	266,357
FSP	14,250
Unmet need	343,059



### Socioeconomic Class and Race

When asked where they saw the greatest gaps in child nutrition in the county, many stakeholders noted that socio-economic class, and how class interacts with race and household type, was where the primary disparities occur. Census data show that Black/African American and Hispanic/Latino families in Tompkins County are disproportionately more likely to have incomes below poverty and thus are more likely to be at risk for food insecurity. In addition, Black/African American families are also much more likely to be very low-income as compared to other races. Census data regarding SNAP participation by race and ethnicity show Asian families are less likely to receive SNAP benefits when they are theoretically eligible. It may be an area of interest to determine whether there is a population that is eligible for SNAP benefits, but are not participating, and if outreach efforts could improve participation. If this population is ineligible to receive SNAP benefits due to citizenship status, it may be useful to explore whether there are other options to support their food security.

<sup>1</sup> Assumes 3,020 children in Tompkins County are food insecure

SNAP: 2,904 children receiving benefits at an average of \$125/month. (2,904 children \* \$125/month \* 12 months) / \$3.03/meal = 1,701,563 meals

FBST Pantries: Pantries average 3 days of meals per month = 9 meals \* 23,565 children served yearly = 212,085 meals

BackPack Program: The BackPack Program provides 6 meals per week. 292 packs per week \* 6 meals \* 36 weeks = 63,072 meals

MFP: The MFP Program serves an average of 3 days of meals per month. 318 children per month \* 12 months \* 9 meals = 34,344 meals

SFSP: SFSP provided 40,872 meals during the summer of 2017

CACFP: CACFP provided reimbursement for 83,000 meals during 2016

FSP: The Fresh Snack Program provides 114,000 servings per year. Assuming 8 servings of fruits and vegetables would make a meal, FSP provides 14,250 meals/year

### ***Single Mothers***

Families with a single female head of household are much more likely to have incomes below poverty and over 40% of these households can be considered to be at risk for food insecurity.

### ***Children in Informal Care***

Children receiving child care through the legally exempt providers or other informal providers may have insufficient access to healthy and adequate food. Stakeholders suggest that low-income children who receive subsidies very often have their care provided by other low-income households and thus have limited access to nutritious food options.

### ***Independent Youth***

Over a third of the estimated 985 independent youth who are homeless in Tompkins County indicate that they are food insecure. A significant portion of these youth also indicated they either have children in their custody or are currently pregnant.

### ***Rural Areas***

Several stakeholders noted that rural populations have disparities in their access to healthy foods.

## **Suggestions for Improvement**

Stakeholders, parents, and students were all asked to provide their ideas for how child nutrition could be improved in the county. Stakeholders frequently suggested that higher quality and more nutritious options should be available at school meals; that non-profits and schools should have more effective partnerships; that parents should have better connections to information and resources; and that the community should develop a united vision for wellness and child nutrition and cultivate sustainable funding and programming. Parents most frequently suggested that schools provide higher quality and more nutritious options at school meals; giving students more opportunities to cook and garden, offering more farm to school opportunities; and increasing the availability of fresh produce. Students were most concerned with improving the taste and appeal of foods available at school lunch; increasing portion sizes and the variety available; and giving them more time to eat.

## **Conclusion**

What seems very clear from the results of this study is that there is no cohesive vision of how child nutrition should be valued, addressed, or assessed in Tompkins County. The non-profits working in the area frequently have very specific agendas and philosophies, school districts have little focus other than meeting USDA guidelines for meal programs, and there are no comprehensive curricula or assessments for students' skills or knowledge attainment related to nutrition. This lack of community vision has resulted in silo-ed efforts reaching pockets of children with narrowly focused goals.

In order to ensure that children in Tompkins County have access to healthy and nutritious food, stakeholders from all areas, schools, cafeterias, non-profits, parents, and health providers, must come together and create an over-arching vision of what it would mean for Tompkins County to successfully address child nutrition. There are several critical elements that must be achieved to create this vision.

First and foremost, the county must coalesce around the reasons for improving child nutrition. Some stakeholders suggest that childhood obesity and the negative individual and public health outcomes is reason enough to pursue improving child nutrition. While public health is clearly a vital issue for the

county, it has proven to be a challenge to rally meaningful public support using obesity as the marker. Our society places a great deal of emphasis on individual responsibility with reference to the health complications related to obesity and diminishes the community's role in addressing the issue. Confounding this challenge is the prevalence of adult obesity. There is a danger in stigmatizing and alienating critical stakeholders such as food service workers, parents, and service workers by focusing the discussion on weight.

A more fundamental motive for focusing on child nutrition is the notion that children have a fundamental human right to adequate, nutritious food and the knowledge necessary to reach their full physical potential. An acknowledgement and embracement of this human right would require all stakeholders to be accountable in their efforts and bring equity into conversations about programming priorities. Within these efforts it will be important to change who carries the mantle of responsibility for deciding what children eat. A message heard from all types of stakeholders in this study is that children are the decision makers of what they eat both at home and at school. Parents of all economic backgrounds frequently said that their biggest challenge in incorporating healthy foods is that their children are picky. Food services directors create their menus based on the assumption that children won't eat anything except hot dogs, chicken nuggets, tacos, and pizza. However, results from this study clearly show that students want nutritious food that is appealing and tastes good and are interested and willing to learn about how to have a healthy diet. A shift in perspective will be a key in overcoming these pervasive attitudinal barriers to change.

To overcome structural barriers, it will be necessary to identify who will drive the process for developing the community vision, supporting collaborations and facilitating the process of change and improvement. Currently, Tompkins County does not have a fully-funded, staffed organization focused on improving child nutrition. The Collective Impact group working on child nutrition has been hindered by a lack of organizational "backbone" to push the initiative meaningfully forward. Identifying and funding the proper group or groups to facilitate change will be a critical step. An important element of this work will be to determine how to measure success and identify on-going challenges. A coordinated approach will help to codify indicators and methods for measuring achievement.

## Opportunities

- 1) Increase the quality of school food in terms of taste and nutrition**
  - a. Make more meal items from scratch
  - b. Eliminate/reduce highly-processed, high sugar products
  - c. Incorporate unlimited salad bars with meal purchase which include sufficient proteins and grains to create a fully reimbursable meal
  - d. Provide healthy, meal-based vending options in the high school
  - e. Extend lunch menu cycles to incorporate more variety
- 2) Increase participation in school food programs**
  - a. Communicate the value and healthiness of school meals to parents and market the convenience and quality of school lunch to justify cost
  - b. Make ingredient and recipe information available to families, invite parents to come experience school meals, provide parents the option to monitor what their child selected for breakfast/lunch
  - c. Expose students to engaging marketing efforts such as “Chef Meals”
  - d. Consider implementing the Community Eligibility Provision in schools where possible
- 3) Bolster district food services budgets**
  - a. Subsidize school food services
  - b. Consider increasing per meal prices for paid meals to increase the budget and purchase higher quality foods
- 4) Create a school culture where students are engaged with food decisions**
  - a. Involve students in decisions about menu items through taste-testing and voting on new items
  - b. Incorporate student-led research and evaluation of the food environment to find and develop recipes; market to peers; and partner with students participating in farm to school programs for produce to integrate into recipes
  - c. Conduct “Student Chef Contests” with taste-tests and judging by other younger students
- 5) Create an environment conducive to healthy eating and conversations about nutrition**
  - a. Increase the amount of time for meals
  - b. Experiment with family style meals
  - c. Experiment with offering recess before lunch for elementary students
  - d. Encourage school adults to focus on conversation rather than discipline in the meal environment
  - e. Experiment with lunch room design
- 6) Expand nutrition education opportunities and increase kids’ opportunities to grow, cook, eat food**
  - a. Empower an organization or coordinator to manage programs and partnerships to ensure equity and consistency
  - b. Ensure on-going, consistent funding
  - c. Explore using Food Corps/AmeriCorps members as food educators in schools
  - d. Consider tapping Cornell Nutrition students as food educators
  - e. Provide easy grant opportunities for teachers using a food-based case study approach
  - f. Consider opportunities to support more consistent and expanded integration of nutrition education with the Fresh Snack Program
  - g. Explore offering FBST’s Kids’ Farmers’ Markets or school-based food fairs in conjunction with nutrition education opportunities and food giveaways

**7) Improve charitable food access and offerings**

- a. Support FBST's efforts to expand produce availability in pantries
- b. Support efforts to deliver and provide healthy food options to low-income families
- c. Support efforts for school districts and child care centers to donate unused food to charitable organizations

**8) Support food and wellness policy improvements**

- a. Encourage robust school-based wellness policies
- b. Support food service departments to collaborate and explore group buying power
- c. Encourage community-based wellness plan/group
- d. Ensure year-round availability of food resources to all children
- e. Develop metrics to evaluate progress



**NEED & ASSET ASSESSMENT OF CHILD NUTRITION  
IN TOMPKINS COUNTY  
FULL REPORT**

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## **Introduction**

At the request of the Park Foundation, Horn Research conducted a comprehensive needs and asset assessment of child nutrition in Tompkins County. Well over a million dollars have been granted to various programs serving youth in Tompkins County in the past 5 years to improve nutrition and reduce food insecurity, but there has been little concrete information on the impact of these programs or the ongoing gaps and needs. This needs and asset assessment hopes to provide baseline information to benchmark improvements and guide future programming efforts.

The project plan for the assessment included: 1) a gap analysis of available resources and needs of children related to nutrition and food security with a focus on determining whether children within various demographic groups face more or different challenges; 2) the identification of key structural and attitudinal barriers; and 3) the identification of innovative programming options that may be implemented to improve childhood nutrition in Tompkins County.

### **Gap Analysis**

The gap analysis of available food resources and needs was intended to determine the areas where children in Tompkins County may be underserved. The activities engaged to determine this were:

- a review of Census data and other publicly available needs assessments and reports to determine the number of children likely to be at risk for hunger/food insecurity and whether there are differences between demographic groups;
- data collection and analysis of secondary data and reports to assess the utilization level of current programming efforts as compared to the potential level of need of children being served by these efforts;
- data collection and analysis of the gap between the desired and perceived nutritional value of food resources.

### **Identification of Key Structural and Attitudinal Barriers**

The key structural and attitudinal barriers and challenges to accessing food resources were identified through a review of previous studies and assessments and qualitative interviews with and surveys of community members, leaders from non-profit agencies and government agencies, students and parents.

### **Innovative Practices Research**

Other communities have undertaken innovative programmatic efforts and forged unique partnerships in their efforts to combat hunger. Research into and qualitative interviews with stakeholders in other communities' engaged in innovative programs offered an opportunity to learn from their efforts.

## Methodology

### Surveys

Surveys were conducted with parents and students in an effort to understand their viewpoints and experiences related to food and nutrition. Horn Research was able to gain the support of two school districts in the county to conduct student and parent surveys: the Ithaca City School District (ICSD) and the Lansing School District.

### Parent Survey

Both ICSD and the Lansing School District sent an email explaining the project and including a link to the online survey to all parents in their districts. In an effort to expand participation beyond ICSD and Lansing, the link to the parent survey was also distributed through list-serves and in online Facebook groups such as parents groups and community groups.

A total of 640 parent surveys were completed between September 5, 2017 and October 15, 2017.

The distribution of parent respondents (Table 1) was heavily weighted to ICSD and Lansing, but also included some respondents from other districts.

Table 1. Distribution of Parent Surveys by School District

	<i>Number</i>	<i>Percent</i>
ICSD	397	62.0%
Lansing	170	26.6%
All other	73	11.4%

Parents were asked to answer the questions in the survey with respect to their oldest school-age child. The school that each parent identified was coded as either urban, rural or a mix of urban and rural based on the primary constituency served by the school. The results (Table 2) show the survey results have an over-representation of urban and an under-representation of rural schools.

Table 2. Distribution of Parent Surveys by Region Type of School District

	<i>Survey Respondents</i>		<i>School Enrollment</i>	
	<i>N</i>	<i>Percent</i>	<i>N</i>	<i>Percent</i>
Urban	278	43.4%	3,131	30.4%
Rural	227	35.5%	5,684	55.2%
Mix of Urban and Rural	135	21.1%	1,488	14.5%

### Student Surveys

In addition to the parent survey, ICSD and Lansing School District sent an email explaining the project with a link to the online survey to 7<sup>th</sup> and 11<sup>th</sup> graders. The middle and high school student survey was conducted between September 5 and October 15, 2017. ICSD also facilitated 4<sup>th</sup> graders' participation during classroom time between October 16 and October 27, 2017. A total of 364 student surveys were completed. The survey results have an under-representation of middle school students (Table 3.)

Table 3. Distribution of Student Surveys by School Level

	<i>Number</i>	<i>Percent</i>
Elementary	146	40.1%
Middle	66	18.1%
High	152	41.8%

### **Qualitative Interviews**

Qualitative interviews were conducted with stakeholders from non-profit programs and school districts as well as with parents and students. The list of stakeholders was compiled with an effort toward receiving feedback from a variety of viewpoints as well as from all areas of the county. Qualitative data was gathered from parents and students from each school district.

	<i>Number Completed</i>
Non-Profit/Program Stakeholders	18
School Based Stakeholders	25
Students	30
Parents	50
Best Practices Programs	5

### ***Secondary data***

Secondary data from a variety of sources (including, but not limited to: US Census, New York State Education Department, New York State Department of Health, New York State Open Data) were explored and analyzed to provide context to the Tompkins County landscape. In addition, agency websites and annual reports were reviewed to provide a greater understanding of the types of assets available in the county, the criteria for participating, and the overall level of participation related to the level of need. Research articles were consulted to provide an understanding of what types of programming have the greatest impact on improving child nutrition.

## **Background**

### **Food Security**

Food security, or having reliable access to a sufficient quantity of affordable, nutritious food, is at the base of understanding the state of child nutrition in Tompkins County. A child's food security is a function of family resources and the availability of and access to community resources and can have dramatic impacts on child outcomes. Research has shown that food insecurity has many adverse consequences for children's physical and mental health<sup>2</sup> and impacts, among other things, academic performance, emotional development and social skills.<sup>3</sup>

### **Quality of Diet**

The effects of food insecurity are not only dependent on the quantity of food, but also the kind and quality of food. Research has shown stronger associations between food insecurity and the consumption of adequate micronutrients for adults, but children are not entirely insulated from these effects. For example, the odds of iron deficiency are much higher for children in food insecure households than in food secure households.<sup>4</sup> Of particular concern is that food insecurity can put children at greater risk of

<sup>2</sup> *Impacts of Child Food Insecurity and Hunger on Health and Development in Children; Implications of Measurement Approach*, John T. Cook, 2013. Retrieved from: [https://sites.nationalacademies.org/cs/groups/dbasse/website/documents/webpage/dbasse\\_084306.pdf](https://sites.nationalacademies.org/cs/groups/dbasse/website/documents/webpage/dbasse_084306.pdf)

<sup>3</sup> *Food Insecurity Affects School Children's Academic Performance, Weight Gain, and Social Skills*, Diana Jyoti, Edward Frongillo, and Sonya Jones, The Journal of Nutrition. 135(12): 2831-2839. Retrieved from: <http://jn.nutrition.org/content/135/12/2831.long>

<sup>4</sup> *Food Insecurity is Associated with Iron Deficiency Anemia in US Adolescents*, Heather A Eicher-Miller, April C Mason, Connie M Weaver, George P McCabe, and Carol J Boushey, *Am J Clin Nutr* November 2009 vol. 90 no. 5 1358-1371

obesity and subsequent health issues because of a lack of access to healthy food choices, cycles of deprivation and overeating, and high levels of stress.<sup>5</sup>

### **Nutrition Education**

In addition to the provision of healthy food, nutrition education has been found to be a key to improving child nutrition. A meta-analysis of studies evaluating the effect of healthy eating teaching approaches found that most nutrition education strategies lead to positive changes in children's nutritional knowledge and behaviors. The analysis found that the most effective strategies for facilitating healthy eating in primary school children are enhanced curricula, cross-curricula and experiential learning approaches.<sup>6</sup>

## **Tompkins County Landscape**

### **Food Security**

Food security is measured by a USDA developed series of questions conducted annually by the Census Bureau as part of the Current Population Survey. However, these data are only available as national-level and state-level estimates. In the absence of local data based on the USDA food security questionnaire, other food security estimates have been examined to provide a general estimate of the number of children and families *at risk of being* food insecure. These estimates do not take into account whether, and the extent to which, resources are available and accessed to ameliorate food security issues.

### **Census Data**

Census data indicates that 17% of families with children in Tompkins County have incomes below poverty and 17.7% of all children in the county live in households with incomes below poverty<sup>7</sup>. Census data show that over 20% of all families have incomes below 200% of poverty<sup>8</sup>. This percentage is likely to be much higher for families with children.

Table 4. Percentage of Families and Individuals in Tompkins County with Incomes below Poverty

<i>Families with Children</i>	<i>All Children</i>
17%	17.7%

Table 5. Percent of All Families in Tompkins County by Ratio of Income to Poverty

<i>&lt;100% poverty</i>	<i>&lt;125% poverty (Eligible for Free Lunch/SNAP)</i>	<i>&lt;185% poverty (Eligible for Reduced Lunch/WIC)</i>	<i>&lt;200% poverty (Below Livable Wage)</i>
9.5%	11.4%	19.5%	21.1%

As with much of the country, race and economic class are intertwined in Tompkins County. Census data show that families that are Black/African American or Hispanic/Latino are disproportionately more likely to have incomes below poverty and thus may be more likely to be at risk for food insecurity<sup>9</sup>. Census data also show that low-income Black/African American families are also much more likely to be very

<sup>5</sup> *Why Low-Income and Food-Insecure People are Vulnerable to Poor Nutrition and Obesity*, Fact Sheet, Food Research and Action Center, Retrieved from: <http://frac.org/obesity-health/low-income-food-insecure-people-vulnerable-poor-nutrition-obesity>

<sup>6</sup> Teaching approaches and strategies that promote healthy eating in primary school children: a systematic review and meta-analysis, Dean A Dudley, Wayne G Cotton and Louisa R Peralta, *International Journal of Behavioral Nutrition and Physical Activity*, 2015 12:28

<sup>7</sup> Selected Economic Characteristics, Table DP03, American Community Survey, 2015, 5 Year Estimates

<sup>8</sup> Ratio of Income to Poverty of Families in the Last 12 months, Table B17026, American Community Survey, 2015, 5 Year Estimates

<sup>9</sup> Ratio of Income to Poverty of Families in the Last 12 months, Table B17026, American Community Survey, 2015, 5 Year Estimates

low-income as compared to other races. Black/African American families show nearly no variation in the percent of families falling into each ratio category.

Table 6. Percent of Families by Ratio of Income to Poverty

<i>All Families (including those without children)</i>		<i>&lt;100% poverty</i>	<i>&lt;125% poverty</i>	<i>&lt;185% poverty</i>	<i>&lt;200% poverty</i>
Total Population		9.5%	11.4%	19.5%	21.1%
Not Hispanic or Latino	White	7.2%	9.1%	16.3%	18.0%
	Black/African American	52.1%	52.1%	52.8%	52.8%
	American Indian/Native Alaskan	22.0%	22.0%	45.8%	56.0%
	Asian	13.0%	17.4%	30.3%	31.8%
	Two or more races	24.5%	24.5%	39.4%	46.8%
Hispanic/Latino		26.1%	26.1%	54.6%	57.4%

Families with a single female head of household are also much more likely to be at risk for food insecurity with over 40% having incomes below poverty<sup>10</sup>.

Table 7. Percentage of Families and Individuals with Incomes below the Poverty Level by Family Type

	Families with Children	Families with Children < Age 5	Female Head of Household with Children	All Children
Total Population	17% (+/-2.8%)	23.9% (+/-7.4%)	41.0% (+/-7.1%)	17.7% (+/-3.1)

### **Feeding America Data**

Feeding America generates estimates of the number of food insecure children for every county in the US through an analysis of data from the American Community Survey and the Bureau of Labor Statistics. Their methodology uses an algorithm based on the unemployment rate, the poverty rate, the homeownership rate, and other demographic variables that are publicly available at both the county and state level.

According to Feeding America's most recent data (Table 8)<sup>11</sup>, Tompkins County is home to over 3,000 children living in food insecure households. Of those 3,020 children, Feeding America estimates that 41% are likely to be ineligible for federal nutrition programs because their households have incomes above 185% of poverty.

Table 8. Feeding America Estimates of Food Insecurity in Tompkins County

Number of Food Insecure Children	3,020
Food insecurity rate, overall	14.0%
Food insecurity rate, children	18.7%
Estimated percent of children income eligible for nutrition programs	59%
Estimated percent of children likely ineligible for federal nutrition programs	41%
Average number of meals per year needed	780,066
Average meal cost	\$3.30
Annual budget shortfall in providing for food insecure children	\$2,573,802

<sup>10</sup> Selected Economic Characteristics, Table DP03, American Community Survey, 2015, 5 Year Estimates

<sup>11</sup> Feeding America data/Map the Meal Gap (2015 data/2017 report), Retrieved from: <http://map.feedingamerica.org/county/2015/child/new-york/county/tompkins>

### Parent Survey Data

Methodology constraints prevented demographic data such as income to be gathered from either parents or students, but the surveys included several questions designed to help identify families that might be at risk for food insecurity. Parents were asked two questions from the USDA food security module that have been shown to be reliable screening tools for identifying families at risk of food insecurity: “We worried whether our food would run out before we got money to buy more” and “The food that we bought just didn’t last and we didn’t have money to get more.”<sup>12</sup> Parents were also asked three other questions to provide additional opportunities to identify families that do not have sufficient food resources at home: “We don’t have enough food at home for breakfast”, “We don’t have enough food at home to bring for lunch” and “We don’t have enough food at home to bring for snack.”

Fourteen percent of parents gave an affirmative response to at least one of the USDA screening questions. An additional 5.5% of parents responded affirmatively to at least one of the additional questions. To capture the broadest range of parents that might be at risk for food insecurity, any parent responding affirmatively to any of the five questions (19.5%) have been identified as potentially food insecure and have been used as a proxy measure for food insecurity in the analysis of the parent survey.

Table 9. Parent Survey Responses to Food Security Proxy Questions

	<i>Often True</i>	<i>Sometimes True</i>	<i>Never True</i>
We worried whether our food would run out before we got money to buy more	3.7%	11.0%	85.3%
The food that we bought just didn’t last and we didn’t have money to get more	2.1%	9.1%	88.8%
We don’t have enough food at home to send with my child (younger children)	0%	16.7%	83.3%
We don’t have enough food at home for breakfast	0.2%	8.3%	91.6%
We don’t have enough food at home to bring for lunch	0.9%	12.6%	86.4%
We don’t have enough food at home to bring for snack	0.8%	9.1%	90.1%

Respondents from districts other than ICSD or Lansing were statistically significantly more likely to be at risk for food insecurity (Table 10).<sup>13</sup> There was not a significant difference between schools identified as urban, rural or mixed.

Table 10. Distribution of Food Insecurity Proxy by District

	<i>Percent at Risk for Food Insecurity (Proxy)</i>
ICSD	12.6%
Lansing	12.4%
All other	26.0%

<sup>12</sup> Development and validity of a 2-item screen to identify families at risk for food insecurity. Hager ER, Quigg AM, Black MM, Coleman SM, Heeren T, Rose-Jacobs R, Cook JT, Ettinger de Cuba SA, Casey PH, Chilton M, Cutts DB, Meyers AF, Frank DA., Pediatrics. 2010 Jul;126(1):e26-32. doi: 10.1542/peds.2009-3146.

<sup>13</sup> One-way ANOVA between groups, F=4.637, p=.01

### ***Middle and High School Student Survey Data***

Middle and high school students were also asked proxy questions in an attempt to determine whether they were at risk of being food insecure. Students were asked to indicate whether they did not have enough food at home for breakfast or to bring for lunch. Ten percent answered affirmatively to at least one of the questions.

Table 11. Middle and High School Students Response to Food Insecurity Proxy Questions

	<i>True</i>	<i>Not True</i>
We don't have enough food at home for breakfast	6.0%	94.0%
We don't have enough food at home to bring for lunch	8.3%	91.7%

In addition to the proxy questions, middle and high school students were asked how often they do not eat any food during the school day. One in five surveyed students indicated that they did not eat any food at all during the school day at least once a week (Table 12.) Students who answered affirmatively to the food insecurity proxy questions did not eat any food during the school day statistically significantly more often than other students.<sup>14</sup> This may suggest that there are a portion of students who may not be eating meals at all due to a lack of family resources.

Table 12. Percent of Student Responses by Number of Days per Week Student Did Not Eat Any Food in the School Day

	<i>Days per Week</i>						<i>Mean</i>
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	
Not eat any food in the school day	78.6%	10.4%	5.5%	2.2%	0.5%	2.7%	.44

### ***Elementary School Student Survey Data***

Elementary school students were asked the same proxy questions as the middle and high school students. Nearly 12% of elementary students responded affirmatively that either they did not have enough food at home for breakfast or they did not have enough food at home to bring for lunch.

Table 13. Elementary Students Response to Food Insecurity Proxy Questions

	<i>True</i>	<i>Not True</i>
We don't have enough food at home for breakfast	4.1%	95.9%
We don't have enough food at home to bring for lunch	9.6%	90.4%

### ***Independent Youth Survey Data***

In the 2015 Independent Living Survey Project, homeless youth in Tompkins County were asked to share their experiences with food security. On average, 35% of respondents have had to cut the size of a meal or skip meals because there wasn't enough money to buy food. Over one third of these youth (36%) skip a meal on a weekly basis and 32% of respondents said they have not eaten for a whole day because there wasn't enough money to buy food. Over one-third of these youth (31%) have not eaten for a whole day on a weekly basis due to lack of money. The project estimates 985 youth are homeless in Tompkins County.<sup>15</sup> In addition, about a quarter of the independent youth surveyed indicated they either have children in their custody or are currently pregnant.

<sup>14</sup> ANOVA between groups  $F=15.887$ ,  $p=.000$

<sup>15</sup> Independent Living Survey Project Summary of Findings, Identifying & Understanding the Needs of Homeless Youth in Tompkins County, 2015. Retrieved from: <http://www.learning-web.org/wp-content/uploads/2015/10/2015-Independent-Living-Survey-4-Final-Report.docx.pdf>

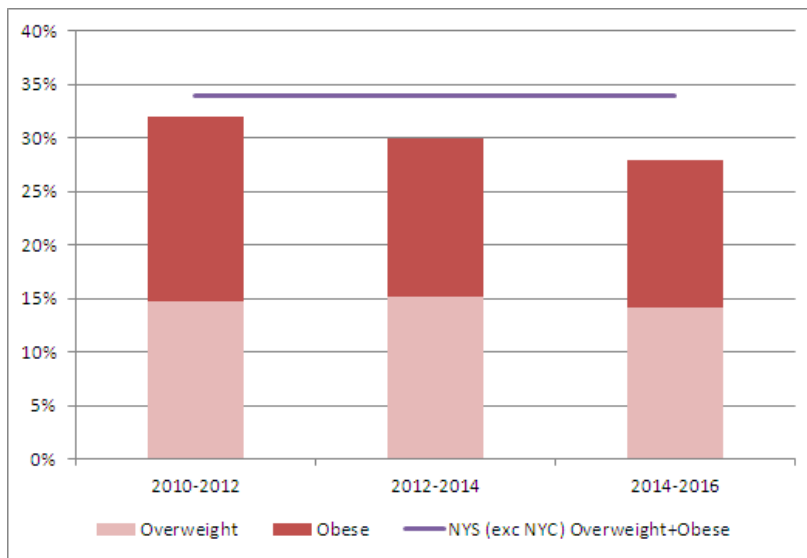
### Quality of Diet

There are very few, if any, indicators or data sources which accurately reflect the nutritional quality of individuals' or families' diets.

### BMI Data

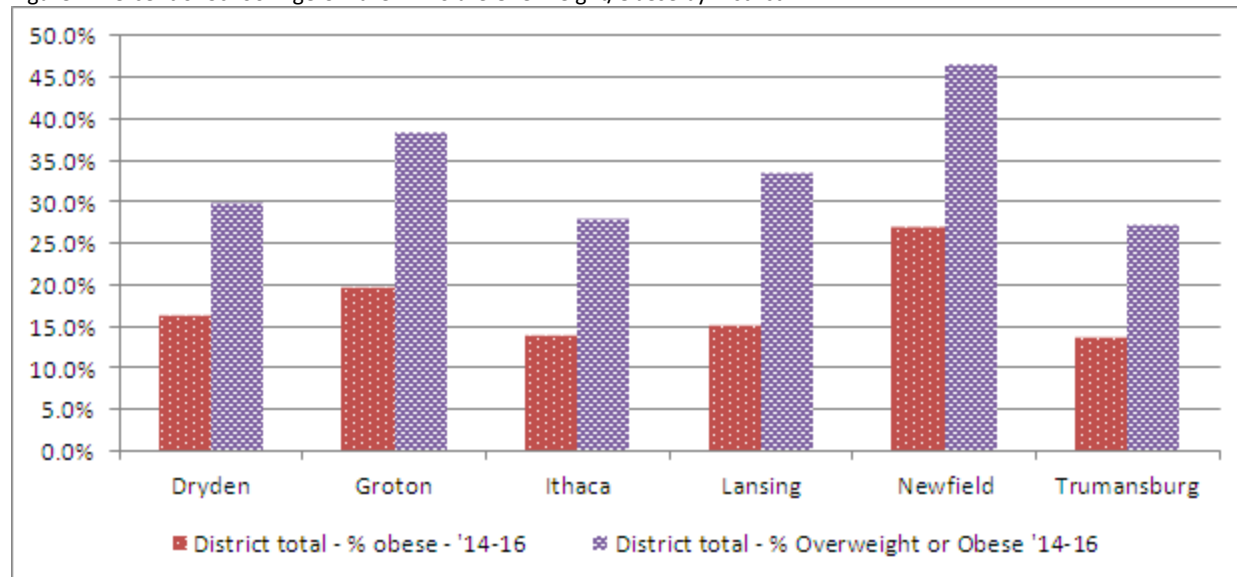
Many researchers rely on body weight data to identify children who are not receiving a nutritionally sound diet. The NYS Department of Education (NYSED) collects and makes available BMI data collected from schools in the state. These data may not be reflective of the entire district population due to the fact that parents can opt out of allowing their children's data from being reported and shared, but do provide some sense of the scale of the impact of nutritional deficiencies in the county.

Figure 1. Percent of Tompkins County School-Age Children Who are Overweight or Obese



NYSED data, overall, show that the percent of children in Tompkins County who are overweight or obese has decreased since 2010 and is well below the NYS rate of 34%, but remains relatively high at 28.1%. There are noteworthy differences in body weight data based on district. Newfield (46.6%) and Groton (38.4%) have the highest percentage of children who are not at a healthy weight and Ithaca (28.1%) and Trumansburg (27.3%) have the lowest percentage.

Figure 2. Percent of School-Age Children who are Overweight/Obese by District





### Family Eating Habits

Overall, respondents to the parents' survey indicated their families' eating habits are relatively healthy. Respondents report the incorporation of fresh fruits and vegetables an average of six days per week and eating fast-food or packaged meals, on average, only one day per week. Parents' also said they eat together as a family the majority of the week.

Table 14. Number of Days per Week by Diet Quality Metric

How many days a week do you...	Days per Week								Mean
	0	1	2	3	4	5	6	7	
Eat take out, fast food or pizza for a meal?	26.1%	54.6%	14.6%	3.5%	1.1%	0.2%	0.0%	0.0%	.99
Eat pre-packaged or frozen meals?	53.8%	29.8%	9.8%	3.6%	1.4%	1.4%	0.2%	0.0%	.74
Eat dinner together?	1.4%	2.5%	2.1%	6.5%	8.6%	19.2%	18.3%	41.5%	5.56
Have meals or snacks that include fresh fruits and vegetables?	0.9%	0.2%	1.8%	4.6%	6.1%	16.0%	12.6%	57.9%	6.03

However, analyses reveal statistically significant differences in family eating habits by family food security status<sup>16</sup>. Families identified as at risk for being food insecure reported eating fast-food and pre-packaged meals more often and eating dinner together and eating fresh fruits and vegetables less often than food secure families.

Table 15. Mean Number of Days per Week by Diet Quality Metric

	Mean Days per Week	
	Food Secure	Food Insecure
Eat take out, fast food or pizza for a meal?	.96	1.14
Eat pre-packaged or frozen meals?	.59	1.31
Eat dinner together?	5.72	4.97
Have meals or snacks that include fresh fruits and vegetables?	6.25	5.18

In addition, families that are food secure are statistically significantly more likely to say the food they eat is healthy and that healthy foods are available to their family<sup>17</sup>.

Table 16. Scale of Healthiness of Diet and Availability of Healthy Foods

	Scale of 1=Not at all, 6=Very		
	All Respondents	Food Secure	Food Insecure
In general, how healthy do you think the food your family eats is?	4.71	4.77	4.42
How available are healthy foods such as fresh fruits and vegetables and whole grain items to your family?	5.51	5.64	4.82

<sup>16</sup> One way ANOVA between groups, fast-food  $F=4.923$ ,  $p=.027$ ; pre-packaged  $F=46.080$ ,  $p=.000$ ; dinner together  $F=19.768$ ,  $p=.000$ ; fresh fruits and vegetables  $F=58.613$ ,  $p=.000$

<sup>17</sup> One way ANOVA between groups, how healthy  $F=10.720$ ,  $p=.0001$ ; availability of healthy foods  $F=81.455$ ,  $p=.000$

### ***Student Eating Habits***

Survey data indicate that while most middle and high school students do not eat lunch at fast food restaurants, convenience stores or from vending machines at all during the school week, a sizable minority said they do. Nearly 18% of middle and high school students said they eat fast food for lunch, and almost 14% said they eat lunch from a convenience store or gas station, at least once per week.

Most students also reported that they do not get food or drinks from vending machines at all, but over a quarter of students reported eating food from a school vending machine at least once per week. School vending machines are required to meet nutrition standards from the USDA and are generally healthier than other vending machines. However, “healthier” does not necessarily mean “healthy.” During program observations, local school vending machines were found to be stocked with such items as low-fat Doritos, Cheetos and potato chips as well as whole grain Pop-Tarts and Rice Krispie Treats.

Only 5.9% of middle and high school students said they got food or drinks at least once per week from a vending machine away from school.

Table 17. Student Use of Less Healthy Food Resources

	<i>Days per school week</i>						<i>Mean</i>
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	
Get lunch at a fast food restaurant	82.1%	12.1%	3.2%	2.1%	0.0%	0.5%	.27
Get lunch at a convenience store, gas station, or concession stand	86.4%	7.3%	2.1%	1.6%	1.0%	1.6%	.28
Get food from a school vending machine	73.3%	18.8%	5.8%	1.0%	1.0%	0.0%	.38
Get drinks from a school vending machine	82.6%	13.2%	0.0%	2.6%	0.5%	1.1	.26
Get food/drinks from a vending machine not at school	94.1%	3.2%	1.6%	1.1%	0.0%	0.0%	.10

### **Key Barriers to Healthy Eating**

Parents were also asked to indicate what challenges they faced in providing healthy food for their families. The most frequently noted reasons were that healthy foods were too expensive (29.5%), they didn’t have enough time to shop for or cook healthy foods (29.5%) and that their children don’t like healthy foods (24.4%).

Table 18. Challenges Parents Face in Providing Healthy Food

<i>What problems does your family face when trying to eat healthy foods?</i>	<i>Percent saying Yes</i>
Don’t know what is healthy and not healthy	1.6%
Healthy foods are too expensive	29.5%
Nearby stores do not carry healthy foods	1.7%
Transportation issues	3.1%
Limited or poor kitchen facilities (refrigerator, stove, storage)	0.8%
Not enough time to shop for or cook healthy foods	29.5%
Don’t know how to cook healthy foods so they taste good	5.9%
Children don’t like healthy foods	24.4%
Parent doesn’t like healthy food	2.7%

Food security status had a significant impact on how frequently parents said they experienced challenges related to trying to eat healthy foods. Seventy percent of parents at risk for food insecurity said that healthy foods are too expensive as compared with 20% of food secure parents. Significantly

more food insecure parents also said not having enough time to shop or cook healthy foods was a challenge.<sup>18</sup>

Table 19. Challenges Parents Face in Providing Healthy Food by Food Security Status

	<i>Food Secure</i>	<i>Food Insecure</i>
Don't know what is healthy and not healthy	1.0%	3.0%
Healthy foods are too expensive	20.0%	70.0%
Nearby stores do not carry healthy foods	1.0%	4.0%
Transportation issues	1.0%	10.0%
Limited or poor kitchen facilities (refrigerator, stove, storage)	0%	4.0%
Not enough time to shop for or cook healthy foods	27.0%	42.0%
Don't know how to cook healthy foods so they taste good	5.0%	9.0%
Children don't like healthy foods	25.0%	21.0%
Parent doesn't like healthy food	3.0%	0.0%

Qualitative interviews with parents touched on many of the same themes. Parents of all economic backgrounds most frequently said that the affordability of healthy foods was a challenge for their and other families. One parent said, *"Cost is a main challenge. We go to Aldi's and Walmart."* Another parent shared, *"The cost is a huge challenge. Quality, organic vegetables are very expensive. I use food stamps and go to the farmers market because I like the quality better. Local food is hard to find in the supermarkets. I'd prefer to spend my money on quality food than at the supermarket."* Another parent shared, *"Money is the biggest challenge and there is a lack of stores. We go to Aldi's because of costs."*

Parents also said that their child being picky was a big barrier to being able to provide healthy foods for their families. One parent said, *"A challenge is getting them to actually eat the healthy food we provide them and not just snacks all day long. They like fruits and vegetables but it can be easier to snack."* Another parent shared, *"The kids habits, and what they like and don't like can be a challenge. Sometimes they tend towards things that aren't as healthy. Our kids are picky with what they eat for dinner. They don't have the same taste preferences."* Another parent said that despite having a CSA, *"Our child doesn't like a lot of vegetables, and it's a challenge trying to get her to eat things besides chicken."*

Several parents noted that having enough time to cook healthy food and the lack of available and convenient healthy options was a challenge for their families. One parent said, *"Time is a challenge. Food that goes bad quickly is a challenge and trying to get organic when you don't have time to get to the store."* Another parent said, *"When we cook it's easier to feed kids healthy. It's hard to keep stocked with enough healthy options and going to the grocery store every other day isn't practical. We need more time to get to the grocery store."* Another parent shared, *"Time is a huge challenge. Between afterschool and getting dinner on the table at a reasonable time, homework and my other responsibilities after work, time is the biggest issue. Online resources are helpful for quick meals, meals that can be done in the crockpot. I don't participate in a lot of programs because of the time factor. It's hard when you are in a two income family."*

Fewer than 2% of all survey respondents and only 1.3% of respondents from rural school districts indicated that nearby stores do not carry healthy foods. There was no significant association between respondents' assessment of the availability of healthy foods and the distance they had to drive to a

<sup>18</sup> One way ANOVA between groups, too expensive F=146.995, p=.000; transportation F=28.272, p=.000; poor kitchen facilities F=21.391; p=.000, not enough time F=11.026, p=.001

grocery store indicating that access may be more related to financial issues rather than geographic limitations.

Table 20. Access by Region Type of School District

	<i>Urban</i>	<i>Rural</i>	<i>Mixed</i>
Nearby stores do not carry healthy foods	2.5%	1.3%	0.7%
Transportation issues	5.8%	1.3%	0.7%

Table 21. Access by Distance to Grocery Store

	<i>Distance to Grocery Store</i>	
	<i>Less 5 miles</i>	<i>More than 5 miles</i>
Nearby stores do not carry healthy foods	2%	2%
Transportation issues	3%	5%

Despite survey data suggesting that the majority of families have access to stores that carry healthy foods, it is clear that some areas of the county have poor or limited local access to healthy foods, but have increased access to less healthy options such as fast food restaurants and convenience stores. In particular, Groton is lacking both a grocery store and a farmers' market. The only retail food resources available in the village include the Family Dollar and convenience stores. Qualitative interviews with parents in both Groton and Lansing revealed challenges with the availability of and access to healthy foods in their community. One parent from Groton said, *"It would be easier to not have to drive so far to get to a grocery store."* Another parent from Groton noted, *"Farmers markets that are more available would be better. And if I had more income. The community needs more income, more availability of fruits and vegetables, and more transportation options."* A parent from Lansing shared, *"Product availability is a challenge with kids. When you are out and about, your choices are not healthy, particularly in fast food."* Another parent from Lansing noted the over-abundance and availability of unhealthy options. She said, *"The main challenges is the over abundant availability of high carb and high sugar food that is in everything and everywhere. It's more accessible than anything else."* Another Lansing parent noted, *"In Lansing, we could use a better store with better food choices."*

*According to the USDA Food Atlas, in Tompkins County:*

- *The number of fast food restaurants increased by 31% between 2007-2012 (from 64 establishments to 84)*
- *The number of convenience stores increased from 31 to 33 between 2007 and 2012*
- *The number of farmers' markets remained flat between 2009 and 2013*
- *The number of grocery stores increased from 19 to 21 between 2007 and 2015*
- *In 2010, 17.6% of the total Tompkins County population and 2,177 children lived in households with low access to grocery stores.*

## Supplemental Nutrition Assistance Program (SNAP)

SNAP is the program formerly known as food stamps. It is a federal nutrition program that helps families purchase food at grocery stores, convenience stores, and some farmers' markets and co-op food programs. SNAP benefits are provided monthly on a plastic card called an EBT (electronic benefits transfer) card, which works like a debit card. Eligibility for SNAP requires gross household income to be below 130% of poverty and net household income (determined by a number of deductions) to be below 100% of poverty adjusted to household size. The amount of benefits the household gets is determined by multiplying the net monthly income of the household by 0.3 and subtracting the result from the maximum allotment for the household size.<sup>19</sup>

The maximum SNAP benefit is based on the cost of a selected basket of food based on USDA's Thrifty Food Plan. This cost is adjusted annually based on the Consumer Price Index. Starting in October, 2017, the maximum SNAP monthly allotment decreased slightly ranging from 1-1.4%. Research has shown that the current SNAP monthly allotments do not accurately reflect the real costs of affording a healthy diet.<sup>20</sup>

### Enrollment

Since 2010, Tompkins County has averaged 4,971 households (8,882 people) per year receiving SNAP for a value of \$1,174,789. In 2017, 4,408 households (7,900 people) received SNAP with a value of \$974,191 for an average of \$221 per month. In 2015, 2,904 Tompkins County children aged birth-17 years (18.5%) received SNAP benefits.<sup>21</sup> SNAP participation is typically higher among households with children with an estimated 93% of eligible households in NYS participating in 2015.<sup>22</sup>

Table 22. Eligibility Standards for SNAP and Free Lunch

Family Size	Eligibility for SNAP (with earned income) <sup>23</sup>	
	Monthly Gross Income	Annual Gross Income
1	\$1,508	\$18,096
2	\$2,030	\$24,360
3	\$2,553	\$30,636
4	\$3,075	\$36,900
5	\$3,589	\$43,176

<sup>19</sup> SNAP Fact Sheet on Resources, Income and Benefits, USDA, FNS. Retrieved from: <https://www.fns.usda.gov/snap/fact-sheet-resources-income-and-benefits>

<sup>20</sup> Food Research Action Center, FACTS New SNAP Allotments, Eligibility Standards and Deductions. Retrieved from: <http://frac.org/wp-content/uploads/frac-facts-new-snap-allotments-income-eligibility-standards-deductions.pdf>

<sup>21</sup> NYS Office of Temporary and Disability Assistance; Bureau of Data Management and Analysis; Welfare Management System, Retrieved from: [http://www.nyskwic.org/get\\_data/county\\_report\\_detail.cfm?countyID=36109](http://www.nyskwic.org/get_data/county_report_detail.cfm?countyID=36109)

<sup>22</sup> Trends in USDA Supplemental Nutrition Assistance Program Participation Rates: Fiscal Year 2010 to Fiscal Year 2015, Office of Research and Analysis, Food and Nutrition Service, USDA.

<sup>23</sup> Income Guidelines for Households with Earned Income, Retrieved from: <https://otda.ny.gov/programs/snap/>

### Enrollment by Township

Data by township Census data show that the percent Tompkins County households with children receiving SNAP benefits is approximately the same as the percent of children in families with incomes below poverty. It appears that there are a higher percentage of children in the Lansing, Newfield and Trumansburg districts that live in families with incomes below poverty than receive SNAP benefits. This may indicate there an opportunity to enroll more families in SNAP in these districts.<sup>24</sup>

Table 23. Households with Children under 18 Receiving SNAP and with Incomes below Poverty by Township

<i>Municipality</i>	<i>Households with Children Under 18 Receiving SNAP</i>		<i>Total Households</i>	<i>Children Under 18 in Families with Incomes Below Poverty</i>		<i>Total Children</i>
	<i>Number</i>	<i>Percent</i>		<i>Number</i>	<i>Percent</i>	
ICSD	762	18.2%	4,186	1,085	16.7%	6,494
Dryden	322	19.2%	1,674	365	12.7%	2,872
Groton	173	25.2%	686	194	16.0%	1,209
Lansing	19	1.4%	1,364	352	14.8%	2,386
Newfield	163	27.1%	602	421	40.7%	1,035
Ulysses	73	11.1%	654	191	19.2%	995

### Enrollment by Race and Ethnicity

Census data regarding SNAP participation by race and ethnicity show that race may be a factor in the likelihood of receiving public assistance and point to a potential gap in services. It appears that Asian families are less likely to receive SNAP benefits when they are theoretically eligible. Data show that 17.4% of Asian families have incomes below 125% of poverty and less than 1% receives SNAP benefits.<sup>25</sup>

Table 24. Families Receiving SNAP Benefits and with Incomes below Poverty<sup>26</sup>

<i>All Families (including those without children)</i>		<i>Receiving SNAP</i>		<i>Incomes &lt;125% poverty</i>
		<i>Number</i>	<i>Percent</i>	<i>Percent</i>
Total Population		3,675	9.6%	11.4%
Not Hispanic or Latino	White	2,952	9.4%	9.1%
	Black/African American	405	34.7%	52.1%
	American Indian/Native Alaskan	80	21.5%	22.0%
	Asian	32	0.8%	17.4%
	Two or more races	63	13.8%	24.5%
Hispanic/Latino		188	17.1%	26.1%

<sup>24</sup> Table B17023, Poverty Status in Past 12 Months of Families by Household Type by Number of Children Under 18 Years, ACS 5-year estimates, 2011-2015 & Table B05010, Ratio of Income to Poverty Level in the Past 12 Months by Nativity of Children Under 18 Years in Families and Subfamilies by Living Arrangements and Nativity of Parents. Note: These Census data have relatively high margins of error which should be taken into account.

<sup>25</sup> These Census data have relatively high margins of error and include families without children which should be considered when evaluating the data. In addition, Census data for Tompkins County includes the relatively large college student population. College students frequently present as having incomes below poverty and as a result skew the data results. The Cornell University student body is comprised of a relatively large Asian population, however, a *family* is defined by the United States Census Bureau for statistical purposes as "a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such people (including related subfamily members) are considered as members of one family."

<sup>26</sup> Selected Economic Characteristics, Table DP03, American Community Survey, 2015, 5 Year Estimates & Ratio of Income to Poverty of Families in the Last 12 months, Table B17026, American Community Survey, 2015, 5 Year Estimates

### ***Enrollment by Household Type***

Census data show fewer households led by single parents receive SNAP benefits than have incomes below poverty<sup>27</sup>, but these discrepancies may be a function of high margins of error and complex formulae for determining eligibility and benefits for SNAP.

Table 25. Households with Children under age 18 Receiving SNAP Benefits and Incomes below Poverty by Household Type

Household Type	Received SNAP Benefits		Income below Poverty	
	Number	Percent	Number	Percent
Married couple	489	8.2%	357	6.4%
Male householder, no wife present	184	22.1%	221	28.9%
Female householder, no husband present	814	36.2%	876	42.3%

### **Key Barriers**

A handful of parents participating in the surveys and qualitative interviews noted several challenges with SNAP. A few parents noted that despite only being just above the poverty line, they do not qualify for SNAP. One parent said the eligibility guidelines are too restrictive. She said, *“It’s impossible to qualify for SNAP. I take money out of savings to pay my bills and they count it as income. The program is a joke.”* Another commented on the process for qualifying and suggested, *“Make SNAP easier to get. In other words, if you don’t have income, then you qualify - as simple as that - no disqualifying loopholes (savings, retirement, etc.).”*

In a 2005 report for United Way of Tompkins County exploring hunger in the county, residents were surveyed at various locations such as food pantries, soup kitchens, and the Department of Social Services<sup>28</sup>. The survey asked respondents to identify the reasons why they don’t currently receive food stamps (Table 26.) The most commonly cited reason respondents provided was that they have or make too much money. Other common reasons included feeling that they did not need food stamps or that others need them more, concerns over the process including that it is too long and complicated. Some respondents also indicated concerns about not wanting the government involved with their family and that the questions were too personal.

<sup>27</sup> Table B22002, Receipt Of Food Stamps/Snap In The Past 12 Months By Presence Of Children Under 18 Years By Household Type For Households, Universe: Households, 2011-2015 American Community Survey 5-Year Estimates & Table B17023, Poverty Status In The Past 12 Months Of Families By Household Type By Number Of Own Children Under 18 Years, Universe: Families, 2011-2015 American Community Survey 5-Year Estimates

<sup>28</sup> COMPASS II – Phase II, *Hunger and Food Insecurity in Tompkins County*, Lisa Horn, Jan. 2005.

Table 26. Results from 2005 Survey - Why Residents Don't Use Food Stamps

Why don't you receive Food Stamps?	Have applied but do not receive	Have not applied
I make/have too much money	35.6%	31.4%
I am not a US citizen	0.0%	4.9%
The amount is too low/not worth it	6.7%	6.9%
I don't know where to go or who to contact	2.2%	6.9%
Transportation issues	13.3%	7.8%
I work when the Food Stamp office is open	2.2%	3.9%
It is too long and complicated	11.1%	12.7%
The questions are too personal	11.1%	5.9%
The Food Stamp office staff is rude	11.1%	4.9%
The Food Stamp office is unpleasant or in unsafe area	6.7%	2.0%
I don't need Food Stamps	0.0%	19.6%
Others need Food Stamps more	4.4%	23.5%
My need is only temporary	8.9%	9.8%
I feel embarrassed applying	2.2%	10.8%
My family or friends do not approve of my receiving benefits	0.0%	2.9%
I don't want to depend on the government for help	4.4%	11.8%
I feel embarrassed using Food Stamps	6.7%	9.8%
I plan to apply	8.9%	10.8%



## Special Supplemental Nutrition Program for Women, Infants and Children (WIC)

WIC is a federal assistance program of the Food and Nutrition Service (FNS) of the USDA charged with improving the healthcare and nutrition of low-income pregnant women, breastfeeding women, and children under the age of five. In order to qualify for the program, family income must be below 185% of the federal poverty level and participants must be considered a “nutritional risk.” WIC offers nutrition education, breastfeeding support, referrals and checks redeemable at grocery stores to purchase a variety of food items.

### **Enrollment**

In 2014, the NYS Department of Health (NYSDOH) found that Tompkins County had an unmet need for WIC of 36% or more.<sup>29</sup> According reports<sup>30</sup> from the Tompkins County Department of Health (TCDOH) reports, WIC participation has been steadily declining over the last four years. The number of participants with active checks declined from 1,386 participants in 2014 to 1,184 in 2017. According to Census data, approximately 1,387 families in Tompkins County have children under age 5 and with incomes below 185% of poverty.<sup>31</sup> These data suggest that there may be more families that could be served by WIC, but are not. Tompkins County is not out of the norm with respect to declining WIC participation. Data from NYS Department of health show that one third of infants enrolled in the NYS WIC program did not recertify at one year of age and half exited the program by the time they reached 18 months of age in 2009.

Table 27. Tompkins County WIC Participation Data

	2014	2015	2016	2017 YTD Projected Averages
Total participants served	4,886	6,417	6,240	568
Participants with active checks	1,386	1,338	1,289	1,184
Total enrolled	1,689	1,564	1,512	1,441
% Caseload Target (2,000 in 2014, 1,500 from Oct 1, 2015 on)	84.4%	104.3%	100.8%	96.1%

Table 28. Households with Incomes below 185% of Poverty with Children under Age 5 by Household Type

	<i>Families with Incomes &lt;185% of Poverty and with Children under Age 5</i>		<i>All Families with Children under Age 5</i>	
	<i>Number</i>	<i>Percent</i>	<i>Population</i>	<i>Percent</i>
Married couple family	572	41.2%	2,558	22.4%
Male householder, no wife present	271	19.5%	442	61.3%
Female householder, no husband present	544	39.2%	712	76.4%
All Households	1,387		3,712	

<sup>29</sup> Special Supplemental Nutrition Program For Women, Infants, and Children (WIC), April Hamilton, MBA, MHSA, NYS WIC Director, Bureau of Supplemental Food Programs New York State Department of Health , April 2, 2015 Retrieved from: <http://www.tompkinscountyny.gov/files2/health/wic/WIC-NYSpt.pdf>

<sup>30</sup> Tompkins County Board of Health Meeting Minutes Retrieved from: <http://www.tompkinscountyny.gov/files2/health/boh/2017/BOH-2017-01-24.pdf>

<sup>31</sup> Table B17022, Ratio Of Income To Poverty Level In The Past 12 Months Of Families By Family Type By Presence Of Related Children Under 18 Years By Age Of Related Children, Universe: Families, 2011-2015 American Community Survey 5-Year Estimates

### **Key Barriers**

In a study examining participant retention in WIC programs, the most commonly reported barriers to continued participation were negative shopping experiences and a low perceived value of the WIC food package. The average WIC benefit provided to participants is \$65 per month plus an additional \$24 per year in farmers' market coupons.<sup>32</sup> In addition to being a relatively low monetary benefit, WIC benefits are provided in the form of "checks" to be used at stores. The checks can be challenging to use and stigmatizing. States are federally mandated to shift WIC to an Electronic Bank Transfer (EBT) system by 2020. New York State is targeting 2019 for state-wide implementation of EBT for WIC.

The Tompkins County WIC program has faced several challenges over the past few years including budget cuts and increased staff qualification requirements. As a result of these challenges and low attendance at rural clinics, the local WIC program decreased the number of clinic locations in the county. Clinics are now available only in downtown Ithaca, at the Health Department, in Newfield, and Jacksonville. While these changes may have been necessary to maintain the fiscal integrity of the program, they may have also created additional burdens for potential participants. Beyond the initial certification appointment, WIC requires periodic follow-up appointments and re-certifications in order to continue to receive benefits. If participants perceive the WIC benefit as being too low in relation to the amount of time and effort required to meet program obligations, they may not choose to continue to participate.

Some parents in both qualitative interviews and in surveys commented on their challenges with WIC. One parent said she had difficulties, *"getting her WIC check on time."* Another said, *"We eat organic and gluten free as much as possible, it's expensive. We qualify for WIC but it's too much of a hassle and half the coupons we can't use."* A parent from Newfield said, *"We used to be on WIC but we couldn't buy much at the farmers' market."* Another parent noted the restrictions on what you can buy with WIC can be a challenge. She said, *"WIC only supports the purchase of dairy products unless there is a severe allergy, and even then, some store clerks won't accept the WIC checks for non-dairy alternatives."* A parent suggested an improvement to WIC would be, *"expanding the WIC program with different options as the children age so there are infant, toddler, elementary, middle, high school programs."*

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<sup>32</sup> NY WIC Retention Promotion Study: Keep, Reconnect, Thrive Summary Report, 2016  
[https://www.health.ny.gov/statistics/prevention/nutrition/wic/2016\\_nys\\_wic\\_retention\\_summary\\_report.pdf](https://www.health.ny.gov/statistics/prevention/nutrition/wic/2016_nys_wic_retention_summary_report.pdf)

## National School Lunch Program (NSLP)

The NSLP provides low-cost or free school lunch meals to qualified students through subsidies to participating schools. The majority of the support provided to schools comes in the form of a cash reimbursement for each meal served. Schools are also entitled to receive commodity foods and additional commodities as they are available from surplus agricultural stocks. Students are eligible for free breakfast and lunch if their family's income is below 130% of poverty and are eligible for reduced price meals if their family's income is below 185% of poverty.

### Enrollment

In Tompkins County, the NSLP is an important resource in providing meals to children. During the 2016-2017 school year, Tompkins County schools served 405,978 breakfasts and 902,368 lunches to students. In NYS, 100% of school-age SNAP or Medicaid participant children were directly certified for free school meals starting in 2014-2015. The percent of children enrolled in the NSLP has increased from 36% in the 2009-2010 school year to 40% in the 2015-2016 school year.<sup>33</sup>

There is wide variation in the percent of children enrolled in the NSLP program across districts. The highest percentage of enrollees is at TST BOCES (71%) followed by Newfield (55%), Dryden (46%) and Groton (44%).<sup>34</sup>

Figure 3. Percent of Tompkins County Children Enrolled in NSLP

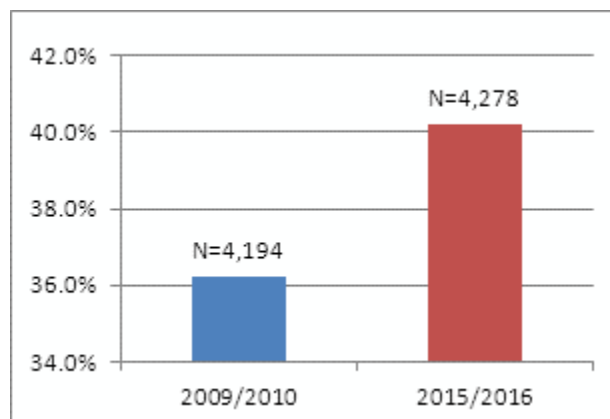
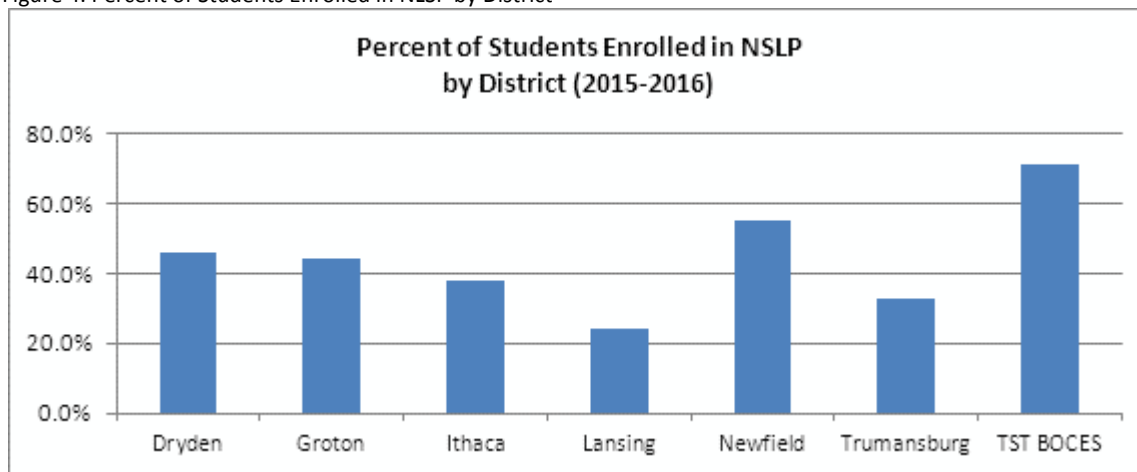


Figure 4. Percent of Students Enrolled in NSLP by District



<sup>33</sup> (NYS Education Department; Office of Information; Reporting and Technology Services, Retrieved from: [http://www.nyskwic.org/get\\_data/county\\_report\\_detail.cfm?countyID=36109](http://www.nyskwic.org/get_data/county_report_detail.cfm?countyID=36109))

<sup>34</sup> New York State School Report Card Data, Retrieved from: <https://data.nysed.gov/lists.php?type=district>

### Participation

While enrollment in NSLP is relatively high, the actual participation in meals varies substantially by both meal and program eligibility<sup>35</sup>. Breakfast participation is very low across all eligibility groups. Fewer than half of students eligible for free breakfast participate in the program and less than 1 in 5 children eligible for reduced price eat school breakfast. Only 6% of students paying full price buy school breakfast.

There is greater participation in lunch with the average daily participation for students eligible for free lunch approaching 80%. However, only half of students eligible for reduced price lunch participate and less than a third of students paying full price eat school lunch.

These statistics are mirrored in the results from the parent and student surveys. Nearly 80% of parents said their children never eat school breakfast and 80% of surveyed middle and high school students and 60% of elementary students said that they never eat breakfast at school.

Middle and high school students reported eating breakfast an average of .62 times per week while elementary students average 1.2 days per week.

Just over half (57.2%) of parents said their child eats lunch at least once a week. A comparable percentage (56.8%) of middle and high school students and 64.4% of elementary school students said they eat school lunch at least once a week. Middle and high school students, on average, reported eating school lunch 1.83 days per week while elementary students reported eating lunch at school an average of 2.27 days per week.

Figure 5. Average Daily Participation in School Breakfast by Eligibility Group

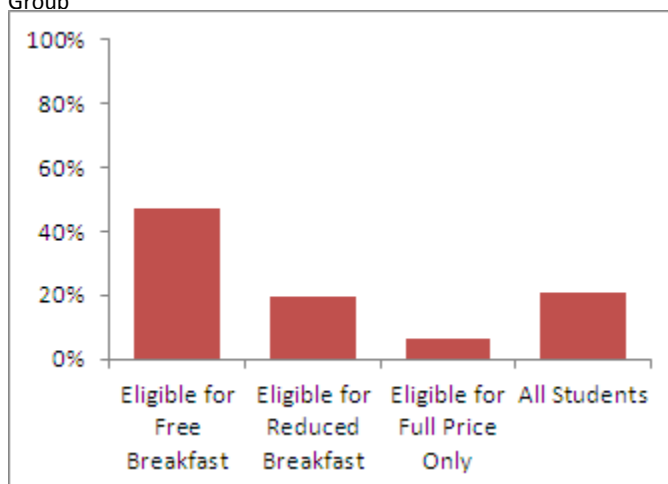


Figure 6. Average Daily Participation in School Lunch by Eligibility Group



<sup>35</sup> Participation data made available from the Child Nutrition Program of NYSED

Elementary students responding to the survey reported eating school breakfast more often than middle or high school students, but the average number of days students ate school lunch was not significantly different between age groups.<sup>36</sup>

Table 29. Average Number of Days Students Eat School Meals by Age Group

	<i>Mean Number of Days</i>	
	School Breakfast	School Lunch
Elementary	2.13	3.22
Middle	1.75	2.91
High	1.58	3.00

There are differences in average daily participation by district for all students<sup>37</sup>, but this is most pronounced for students eligible for free meals.<sup>38</sup> Newfield had the highest participation for students eligible for free meals at nearly 90% for breakfast and 100% for lunch. Lansing had the lowest breakfast participation among students eligible for free meals at 30% while Dryden had the lowest lunch participation among students eligible for free meals at 64%.

Figure 7. Average Daily Participation in School Meals by All Students

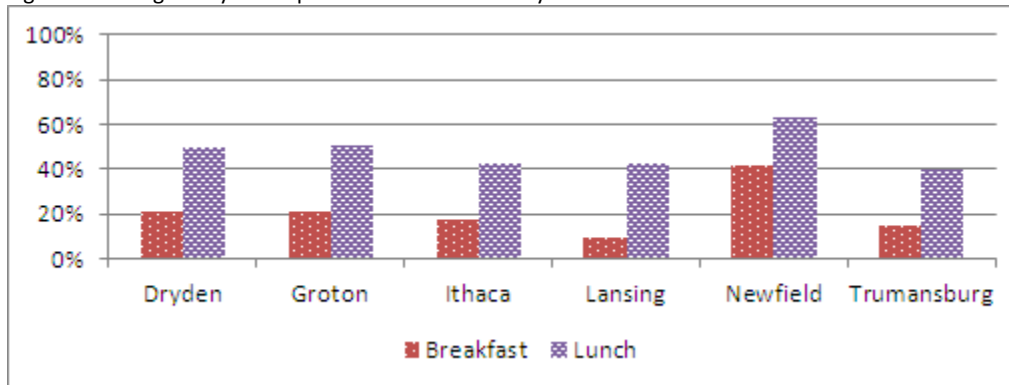
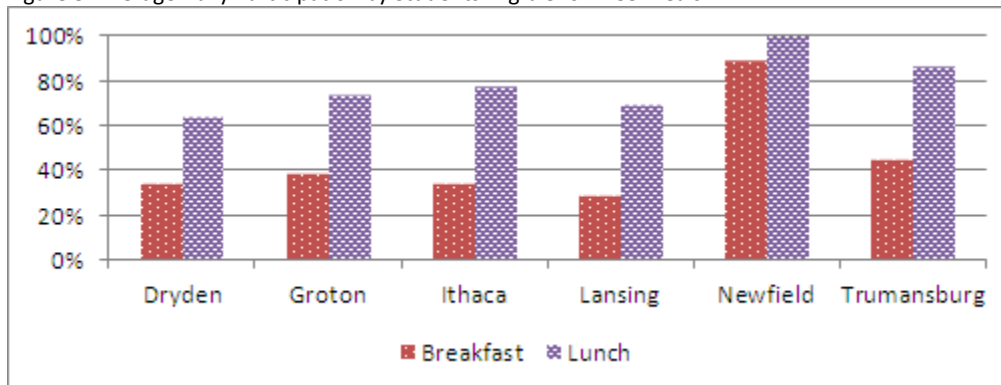


Figure 8. Average Daily Participation by Students Eligible for Free Meals



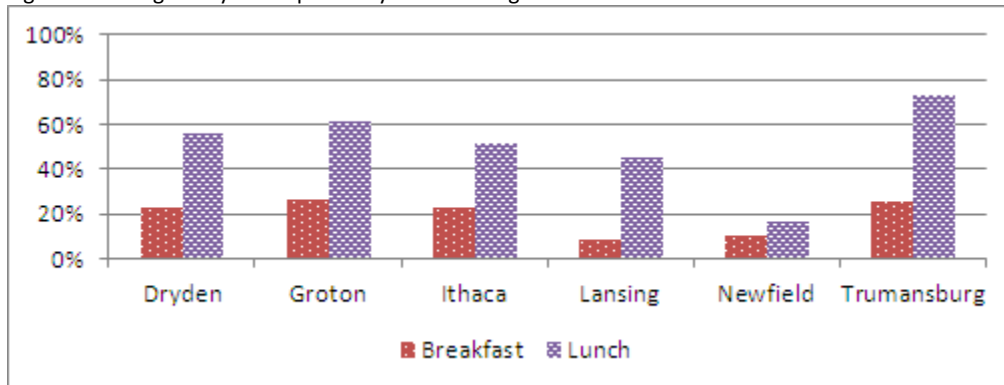
<sup>36</sup> One-way ANOVA between groups, breakfast  $F=5.681$ ,  $p=.004$ ; lunch  $F=.950$ ,  $p=.387$

<sup>37</sup> 2016-2017 meal participation data provided by NYSED Office of Child Nutrition; 2016-2017 enrollment data provided by NYSED School Reports.

<sup>38</sup> 2016-2017 meal participation data provided by NYSED Office of Child Nutrition; 2015-2016 eligibility data provided by NYSED School Reports, 2016-2017 enrollment data by eligibility for free meals was not available therefore these percentages are approximate.

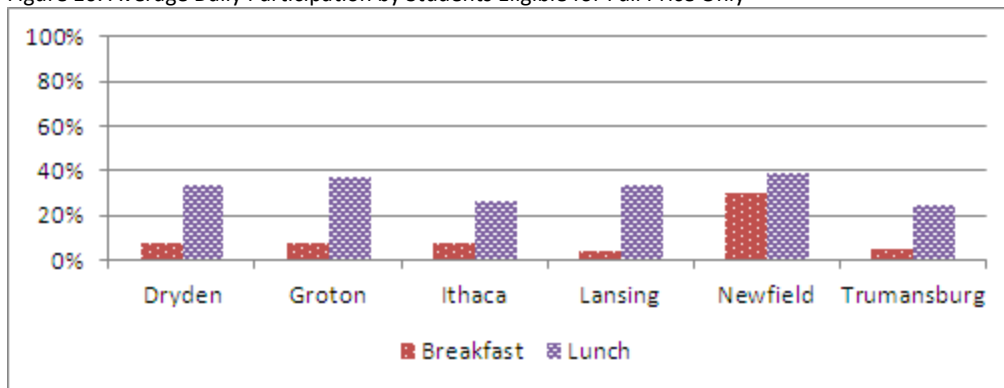
Participation by students eligible for reduced priced meals is significantly lower than participation by students eligible for free meals, in particular for breakfast. In Lansing, less than 9% of eligible students receive a reduced price breakfast.

Figure 9. Average Daily Participation by Students Eligible for Reduced Price Meals



Participation in both breakfast and lunch by students is very low for students who pay full price.

Figure 10. Average Daily Participation by Students Eligible for Full Price Only

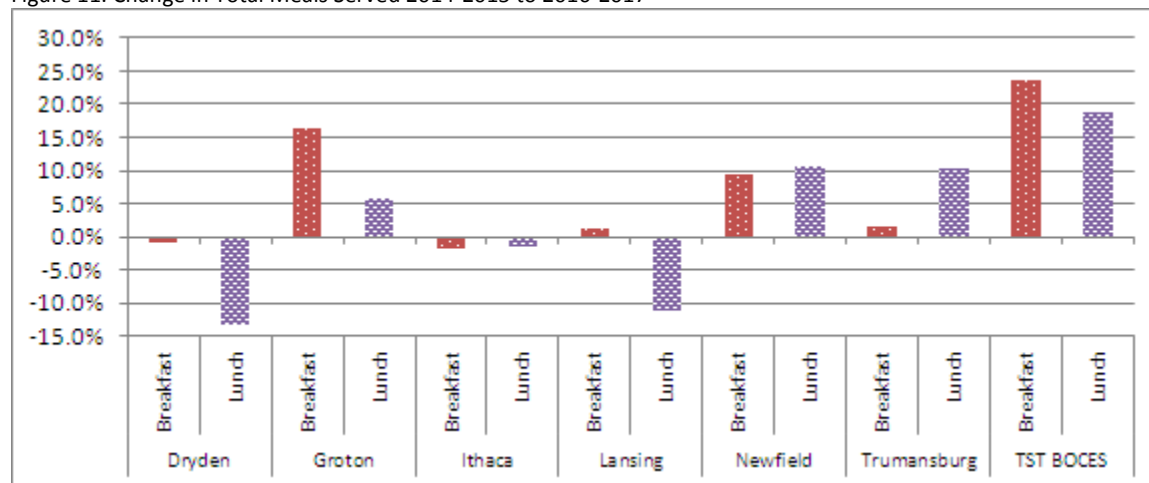


*The Groton School District food services director improved breakfast participation by having kids congregate in the cafeteria in the morning before class and by shifting from pre-packaged options to a hot homemade breakfast options such as bagel, egg and cheese sandwiches, breakfast pizza, and waffles. For lunch, participation was improved by offering more options including specialty salads and made-to-order sandwiches and wraps. The food services director is also involving students in providing feedback on school meals by conducting taste tests and having a wellness day where students had the opportunity to try new foods such as hummus, pitas, and chickpeas risk-free.*

### Change in Participation

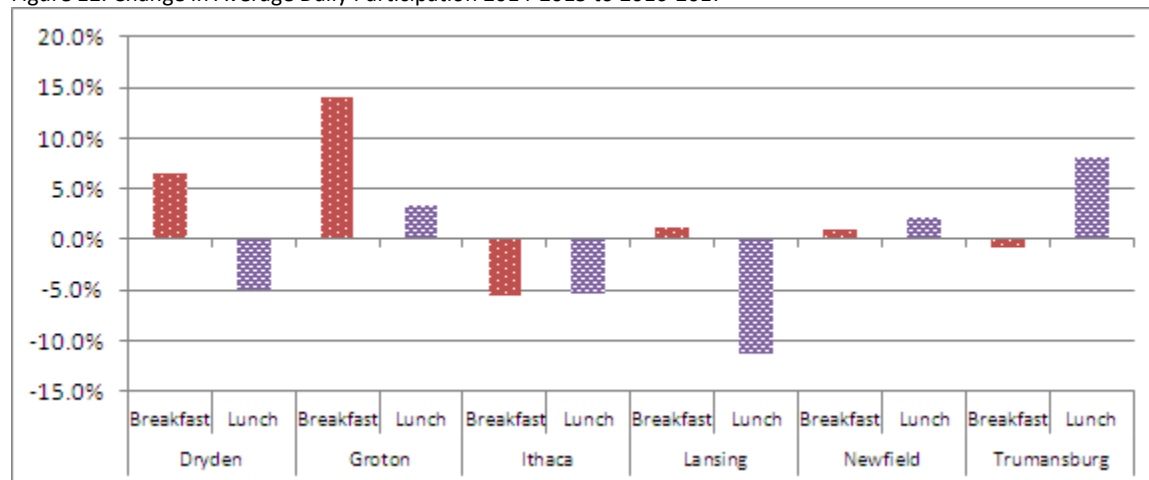
Groton, Newfield, Trumansburg and TST BOCES all increased the total number of school meals served between the 2014-2015 school year. Groton increased the number of breakfasts served by over 15%. Newfield increased both breakfast and lunch by approximately 10% and TST BOCES increased breakfast by nearly a quarter and lunch by almost 19%. Dryden and Lansing served over 10% fewer lunches in 2016-2017 than they did in 2014-2015. ICSD held mainly steady with slight decreases in both breakfast and lunch.

Figure 11. Change in Total Meals Served 2014-2015 to 2016-2017



Some districts had changes in enrollment between school years which may have affected the total number of meals. Dryden's enrollment declined by nearly 8% between the 2014-2015 school year and 2016-2017 school year. The change in enrollment results in an increase of over 6% in average daily participation for breakfast in Dryden. Newfield, in comparison, had an increase in enrollment of nearly 9% which results in a much less impressive increase in average daily participation for both breakfast (1%) and lunch (2.1%). Enrollment data for TST BOCES was not readily available therefore it was not possible to calculate average daily participation for the district.

Figure 12. Change in Average Daily Participation 2014-2015 to 2016-2017



### **Universal Meals**

The Community Eligibility Provision (CEP) is a meal service option through the NSLP for schools and school districts in low-income areas which allows schools and districts to serve breakfast and lunch at no cost to all enrolled students without collecting household applications. To be eligible, schools or districts must meet a minimum level of “identified students” for free meals in the year prior to implementing Community Eligibility; agree to serve free breakfasts and lunches to all students; and agree to cover with non-Federal funds any costs of providing free meals to students above the amounts provided by Federal assistance. Reimbursement is based on claiming percentages derived from the percentage of identified students. The claiming percentages established in the first year may be used for four school years and may be increased if the percentage of identified students rises. “Identified students” are students approved as eligible for free meals who are “directly certified” through their participation in other programs such as SNAP, TANF, Head Start, and Medicaid. With CEP, schools use only direct certification data and do not collect any household applications to determine the amount of Federal reimbursement. To be eligible to participate in CEP, the percentage of identified students must be at least 40 percent of enrollment.

Three schools in Tompkins County are currently participating in the CEP. The Newfield elementary school offers free lunch to all Pre-K to 5<sup>th</sup> grade students. In addition, Newfield offers free breakfast to all students Pre-K to 12<sup>th</sup> grade. New Roots Charter School provides free breakfast and lunch to all of their students as does TST BOCES. Some stakeholders noted the success of offering universal meals in their schools through CEP. One stakeholder from a CEP school said, *“I think what works really well is that all students are able to get lunch and breakfast regardless of their family incomes. It wasn’t always like that in previous years. Some were on reduced, some were full price, some didn’t fill out the forms. They are a hassle and difficult to fill out and they didn’t understand it. Now everyone gets both breakfast and lunch. My students definitely need the breakfast to get started.”* A parent from Newfield said, *“The free school meals are a huge help.”* Students from New Roots commented that they appreciated having free meals. One student remarked that it was an important part of her choosing the school.

There are a handful of other schools in the county that would be eligible to participate in CEP. In Dryden, Cassavant Elementary (56%), Dryden Elementary (42%), Freeville Elementary (56%) and Dryden Middle School (40%) all met the threshold for participation in CEP in 2015-2016. Groton Elementary (40%) also met the threshold as did Beverly J Martin Elementary (65%) and Enfield Elementary (70%).

There are some concerns about whether the CEP process could create more financial challenges for schools and districts. CEP proponents suggest that increased participation as a result of providing universal meals is sufficient to make the program financially feasible, and in some cases, more beneficial. Schools implementing the CEP in high poverty schools saw dramatic increases in participation. In a 2013 report by the Center on Budget and Policy Priorities and the Food Research and Action Center, schools that had implemented community eligibility increased lunch participation by an average of 13% within two years and increased breakfast participation by 25% in the same time period.<sup>39</sup> As previously noted, Newfield saw a jump in total meals, a 10% increase, served since implementing CEP. This increase is somewhat tempered by the increase in enrollment, but nonetheless shows a positive movement in participation that may be related to CEP. TST BOCES experienced an even larger increase in the number of breakfasts (18.8%) and lunches (23.5%) served since implementing CEP. Enrollment data for TST BOCES was not available to calculate the change in average daily participation.

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<sup>39</sup> Community Eligibility, Making High-Poverty Schools Hunger Free, Madeleine Levin & Zoe Neuberger, October 1, 2013



*Example 1: A school with 50% of “identified students”*

In the regular NSLP, total reimbursement would equal **\$160.29 per day**.

	Number of Students	Average Daily Participation	Number of Reimbursable meals/Day	Federal reimbursement	Total reimbursement
Free	50	80%	40	\$3.23	\$129.20
Reduced	20	50%	10	\$2.83	\$28.30
Full	30	30%	9	\$.31	\$2.79
Total	100		59		\$160.29

With CEP<sup>40</sup>, total reimbursement would equal **\$177.28 per day**.

Assuming a 13% increase in participation (from 59 to 69 meals/day)

80% reimbursed at free rate of \$3.23 * 67 meals	= \$173.13
+ 20% reimbursed at paid rate of \$.31 * 67 meals	= \$4.15
Total reimbursement	= \$177.28

*Example 2: A school with 40% of “identified students”*

In the regular NSLP, total reimbursement would equal **\$135.38 per day**.

	Number of Students	Average Daily Participation	Number of Reimbursable meals/Day	Federal reimbursement	Total reimbursement
Free	40	80%	32	\$3.23	103.36
Reduced	20	50%	10	\$2.83	28.30
Full	40	30%	12	\$.31	3.72
Total	100		54		135.38

With CEP, total reimbursement would equal **\$132.91 per day**.

Assuming a 13% increase in participation (from 54 to 61 meals/day)

64% reimbursed at free rate of \$3.23 * 61 meals	= \$126.10
+ 36% reimbursed at paid rate of \$.31 * 61 meals	= \$6.81
Total reimbursement	= \$132.91

In order to break even, a school with only 40% of “identified students” would need to see a 15% increase in participation with the shift to CEP in order to meet current federal reimbursement levels.

<sup>40</sup> Number of identified Students \* 1.6 = Percent of meals reimbursed at free rate

## Key Barriers

Some of the key barriers to the NSLP include the tight budgets food services departments must maintain, the quality and taste of foods, the variety within school meals, the nutritional value of the food served, difficulties meeting special dietary needs, the amount of time and environment allowed for meals, portion sizes, the stigma associated with eating school meals and communication between parents and students and schools about food and nutrition.

## Food Services Departments Finances

For the bulk of the school districts in Tompkins County, the food services programs are self-supporting and must generate enough revenue to cover all expenses including food, labor, and equipment. Most districts rely heavily on reimbursement from the NSLP and on government commodity foods. All of the food services directors interviewed for the project noted that maintaining their budget was a challenge. One food service director said, *"We have budget challenges and had to chip in from the school budget."* Other districts rely heavily on à la carte sales to supplement their budget. For example, over 12% of ICSD's food services revenue came from à la carte sales, catering and vending. One food service director noted the challenge with à la carte sales saying that the sales *"provide funding, but then kids are choosing it instead of meals"* which both reduces federal reimbursement and is a less healthy option for students.

## Labor Costs

Labor costs accounted for 53% and food costs 36% of ICSD's food services budget. ICSD spends more on labor than the national average.<sup>41</sup> Food service directors noted several challenges hiring and managing labor. One director said, *"If someone calls in sick, it creates a hardship on the kitchen. It's hard to find staff. It's hard to find people who want to work."* Positions in food service departments are frequently part-time and not well-paid making staffing difficult.

Table 30. Expenses by Type for ICSD and National Average

	National Averages	ICSD Food Services	
		2015-2016	2016-2017
Food costs	46%	35.6%	36.1%
Labor cost	45%	53.7%	52.6%
End-of-year cash balance	12.5%	8.5%	9.1%

## Food Costs

Overall, food services departments have very little money in their budget for food costs. For example, during the 2016-2017 school year ICSD generated \$1,674,405 in revenue from sales of meals and reimbursement from the NSLP. With 535,599 meals sold that equals \$3.13 in revenue per meal. Of that revenue, \$569,325 was spent purchasing food (not including commodity foods). For those 535,599 meals, only \$1.06 per meal was spent on food costs. This is not out of the norm. Nationally, food services departments spend on average \$1.00 per meal on food.<sup>42</sup>

<sup>41</sup> School Lunch and Breakfast Cost Study –II, Susan Bartlett, Frederic Glantz, Christopher Logan, Office of Research, Nutrition and Analysis, Food and Nutrition Services, USDA, April 2008

<sup>42</sup> *The Cost of School Lunch, SchoolFood 101*, School Food Focus, Retrieved from: <http://foodsystems.msu.edu/uploads/files/cost-of-school-lunch.pdf>

Table 31. Select Revenues and Expenses from ICSD Food Services

<i>Revenue (excerpt)</i>	
Paid meals	\$395,956
Reduced price meals	\$6,457
Breakfast sales	\$40,186
State Aid/Federal reimbursement	\$1,231,806
	\$1,674,405
<i>Expenses (excerpt)</i>	
Value of food purchased	\$569,324
Lunches served	376,597
Breakfasts served	159,002

### *Cost of Meals by Eligibility Group*

Several non-food service stakeholders suggested that increasing the number of children paying for lunch would increase food services' budgets and allow for higher quality food and labor. While it is true that all districts in the county have low participation by students paying full price, the impact of increasing their participation may be less useful than might be assumed because the current price of a paid meal does not cover the costs.

On average, Tompkins County school districts charge high school students \$2.60 for a paid lunch. Food services departments are reimbursed 43 cents per paid meal from the NSLP bringing the revenue received from a paid lunch to \$3.03. This is 32 cents less than the reimbursement for a free meal (\$3.35.) This revenue differential results in free lunches subsidizing paid lunches and diminishing total resources available to improve the quality of food program.

Table 32. Reimbursement and Prices of School Meals by District

	<i>Breakfast</i>			<i>Lunch</i>		
	<i>Free</i>	<i>Reduced</i>	<i>Paid</i>	<i>Free</i>	<i>Reduced</i>	<i>Paid</i>
Federal + State Reimbursement	\$1.85 (SN <sup>43</sup> =\$2.19)	\$1.60 (SN=\$1.95)	\$.30	\$3.35 (SN <sup>44</sup> =\$3.37)	\$3.09 (SN=\$3.11)	\$.43 (SN=\$.45)
Dryden	-	\$.25	\$1.30	-	\$.25	\$2.40-\$2.75
Groton	-	\$.25	\$1.25-\$1.40	-	\$.25	\$2.15-\$2.30
Ithaca	-	\$.25	\$1.50-\$2.00	-	\$.25	\$2.60-\$3.10
Lansing	-	\$.25	\$1.60-\$1.75	-	\$.25	\$2.80-\$3.00
Newfield	Universal free breakfast for all students			-	\$.25	\$2.25
Trumansburg	-	\$.25	\$1.60-\$1.90	-	\$.25	\$2.55-\$2.75
County average		\$.25	\$1.59			\$2.60
National average <sup>45</sup>			\$1.35-\$1.50			\$2.35-\$2.60

<sup>43</sup> Higher reimbursement for breakfast for severe-need (SN) schools defined by having served 40% of school lunches as free or reduced in the previous year

<sup>44</sup> Higher reimbursement for lunch for severe-need schools (SN) defined by having served 60% of school lunches as free or reduced in the previous year

<sup>45</sup> *School Nutrition Operations Report, The State of School Nutrition 2016*, School Nutrition Association Retrieved from: [https://schoolnutrition.org/uploadedFiles/Resources\\_and\\_Research/Research/2016OperationsReportExecutiveSummary.pdf](https://schoolnutrition.org/uploadedFiles/Resources_and_Research/Research/2016OperationsReportExecutiveSummary.pdf)

The effect of this subsidization is substantial. Free lunches constitute 52.8% of the number of lunches served in the county, but generate 60.9% of dollars for the program. Paid meals, in turn, represent 40.0% of meals and only 31.0% of dollars generated<sup>46</sup>. This “subsidization” is true for all districts in the county, but is most pronounced in Dryden and Groton.

Figure 13. Percent of Meals Served and Dollars Generated

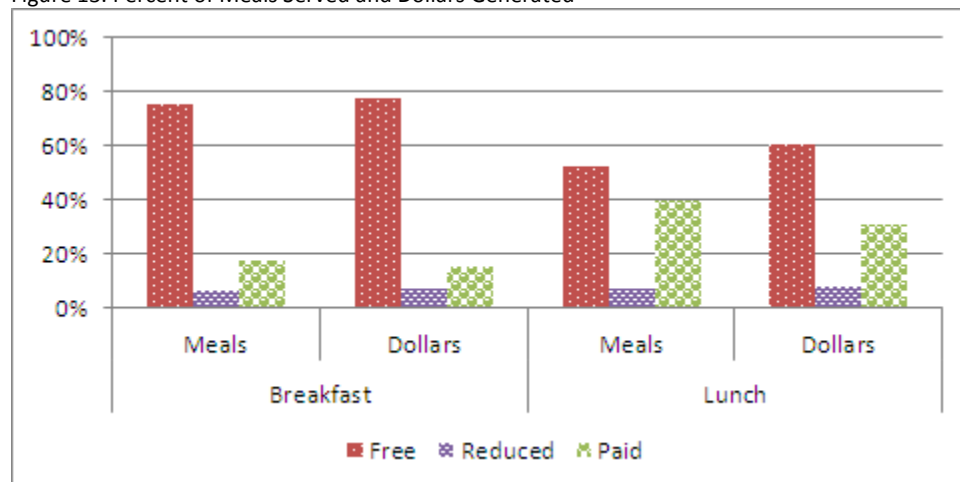


Table 33. Percent of Breakfasts Served and Dollars Generated by Eligibility Group and District

	Free		Reduced		Paid	
	% served	% dollars	% served	% dollars	% served	% dollars
Dryden CSD	73.5%	77.9%	7.5%	8.0%	19.0%	14.1%
Groton CSD	72.0%	76.1%	8.8%	9.3%	19.2%	14.6%
Ithaca City SD	79.8%	80.4%	6.5%	6.5%	13.8%	13.1%
Lansing CSD	62.3%	64.3%	4.2%	4.3%	33.5%	31.4%
Trumansburg CSD	68.5%	69.4%	8.5%	8.6%	23.0%	22.1%

Table 34. Percent of Lunches Served and Dollars Generated by Eligibility Group and District

	Free		Reduced		Paid	
	% served	% dollars	% served	% dollars	% served	% dollars
Dryden CSD	56.5%	61.6%	7.5%	8.2%	36.0%	30.2%
Groton CSD	55.0%	62.7%	8.4%	9.5%	36.6%	27.8%
Ithaca City SD	55.5%	66.8%	6.9%	8.2%	37.6%	25.0%
Lansing CSD	35.2%	38.3%	5.1%	5.5%	59.7%	56.2%
Trumansburg CSD	50.0%	54.7%	8.9%	9.7%	41.1%	35.6%

The NSLP has a provision, paid lunch equity, which requires food service programs that generate less revenue for each paid lunch to gradually close the gap between the two – either through increasing non-federal revenue or by raising prices no more than five or ten cents per year. The districts in Tompkins County are complying with this provision by increasing prices, but some districts have a greater gap to make up.

<sup>46</sup> Calculations exclude Newfield and TST BOCES because both districts provide universal free breakfast and lunch to at least part of their school population.

### *Cost Saving Options*

According to a study done by ERS<sup>47</sup>, food services departments that are larger have lower per-meal costs suggesting that there are cost savings possible through economies of scale. Urban districts also have lower per-meal costs as compared to rural districts. The study found the greatest effects in breakfast with costs reduced by approximately 50% among large, urban districts. These effects were found with lunch as well, but not as high with costs reduced by up to 20%. The report also found that efficiencies in labor and food costs were greater when the number of breakfasts served more closely matched the number of lunches served.

While school districts in Tompkins County can't increase in size, they may be able to more effectively coordinate menu planning and purchasing to reduce costs. For example, the Delaware-Chenango-Madison-Otsego BOCES has a school food management program that allows districts to participate in a cooperative bid system. According to a report comparing cost savings of the DCMO bid system to the current New York State Contract for the same items, the food bid process saved districts 36.6% in food costs.<sup>48</sup> Several of the Tompkins County districts currently participate in the DCMO bid system which presents an opportunity to establish greater coordination among county districts to more effectively order larger quantities and potentially see greater cost-savings.

### *Cost and Availability of Fresh Produce*

Interviews with food service directors indicate that they have experienced difficulty accessing affordable, fresh produce. One food services director said, *"I want and need options and ideas for fresh produce. It's expensive and I can't get it within our budget."* This problem was echoed by several other food service directors. One food service director said trying to buy fresh produce *"results in lots of waste which is expensive."* Some directors said they had difficulties trying to make connections with local farmers to supply their fresh produce. One director noted the school year was the *"wrong time of year to have great connections with farmers."* Another said, *"You have to really search to get local foods. I got some contacts, but it was a real process to research it. I wish the state or Tompkins County would help. It's hard to get farmers around here. Some of the counties have farm to school easily. They can go on a website, but it's hard to find here."*

There is considerable interest in the state to increase public spending on fresh foods grown on New York State farms. A report by The New York Academy of Medicine<sup>49</sup> estimates that increasing local food purchasing from its baseline 10% to 25% of public plate dollars has the potential to improve the health of New Yorkers and generate over \$200 million in new economic output. The authors suggest, among other recommendations, that state and local municipalities provide incentives such as increased reimbursement rates, or set-asides to institutions that purchase healthy foods grown or raised on NYS farms. They also suggest that local leaders simplify the process for procuring foods grown in NYS. With coordination and support, it may also be possible to replicate or shift the DCMO bid system to prioritize participation of a greater number of local or NYS based producers and include higher quality, minimally processed food items and achieve similar cost savings.

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<sup>47</sup> *Economies of Scale, the Lunch-Breakfast Ratio, and the Cost of USDA School Breakfasts and Lunches*, Michael Ollinger and Joanne Guthrie, USDA, Economic Research Service, November 2015

<sup>48</sup> DCMO Bid Sheet Retrieved from:  
<https://docs.google.com/a/dcmoboces.com/viewer?a=v&pid=sites&srcid=ZGntb2JvY2VzLmNvbXxkY21vLWNvb3BlcmF0aXZlXB1cmNoYXNpbm d8Z3g6OGI4MTA5YjYyMTZhOTBh>

<sup>49</sup> *The Public Plate in New York State: Growing Health, Farms and Jobs with Local Food*, Kimberly Libman, Amanda Li, Christine Grace, New York Academy of Medicine, 2017

### *Best Practices – Farm to School*

*The Kalispell School District in Kalispell, MT has a robust farm-to-school program. The district has grown their local purchasing from 10% to 30% since implementing their program. They shape their menus to fit Montana's agricultural offerings. The district procures their beef raised and processed in state as well as whole grains, lentils, apples, and storage crops.*

*Much of Kalispell's efforts have been supported by the use of a FoodCorps member. FoodCorps brings AmeriCorps members into high-need schools to connect kids to healthy foods in school. In Kalispell, FoodCorps members helped make the connections with local producers and developed the central kitchen garden. The FoodCorps member continues to work with the harvest of the month program to highlight a certain food each month and conduct taste tests and develop classroom lessons.*

*Kalispell is a high need district with most of their schools qualifying for CEP. They participate in the USDA fresh fruit and vegetable program which gives students a snack of fresh fruit or vegetable 2 or 3 times week and an opportunity to try new things. In addition, the district offers unlimited salad bars in every school, every single day.*

*One of the main challenges the food services department director noted with their farm-to-school program is the increase in prep work for their cooks. She said it was difficult getting staff on board with processing what comes out of the garden. She noted that "it's a little bit more expensive to buy fresh things from right in the area in bulk than it is to just call SYSCO, but the parents love it. It's pretty nice when seeing a kindergartener take green peppers off a salad bar and actually eating it. There's always fresh fruit and veggies. They can have as much as they want."*

### ***Taste and Appeal of School Food***

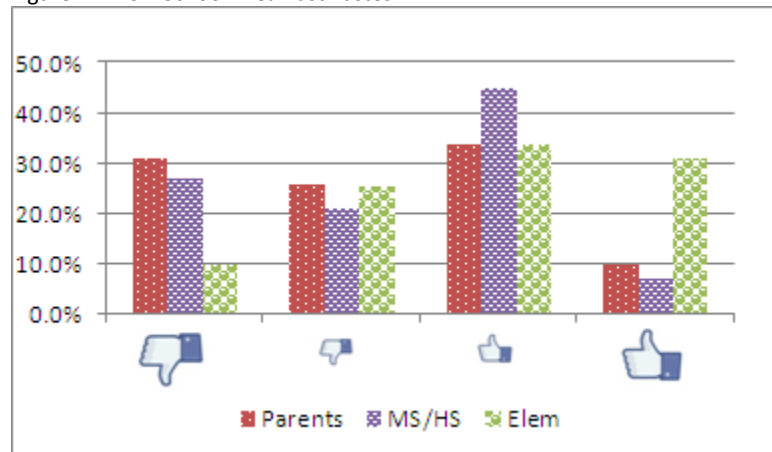
Unsurprisingly, given the low breakfast participation rates in the county, the vast majority of surveyed parents (71.6%) said they do not know how school breakfast tastes. Sixty percent of middle and high school students and 49% of elementary school students also said they didn't know how school breakfast tastes.

#### ***School Breakfast***

Of parents who indicated that their child ate school breakfast at least some of the time, just over half (56.7%) indicated that they thought the breakfast did not taste good (Figure 14.) Students had a higher opinion of the taste of school breakfast with just over half middle and high school students and two-thirds of elementary students giving a "thumbs up" to the taste of school breakfast. There was no statistical difference between districts in how parents or students rated how their school breakfast tastes.

Very few middle and high school students commented on the taste and appeal of school breakfast other than to say "it's gross" or "it tastes weird." More elementary students noted that they liked the way school breakfast tastes. One student said, "I really like school breakfast."

Figure 14. How School Breakfast Tastes

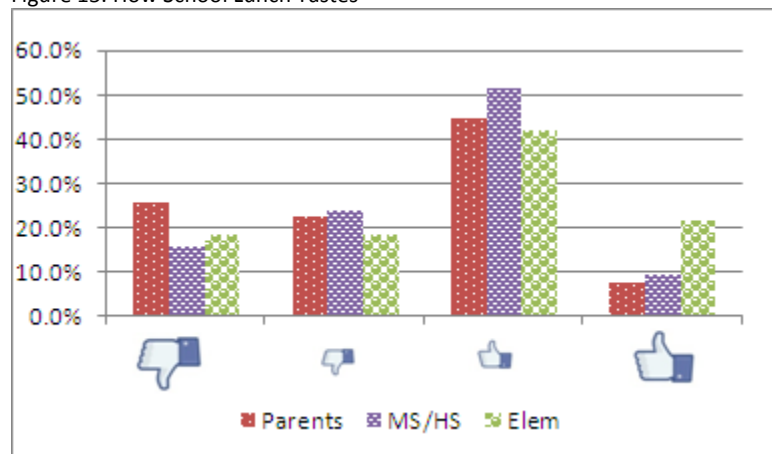


### School Lunch

More parents and students reported having an opinion on how school lunch tastes with only 37.1% of parents, 14.8% of middle and high school students, and 20% of elementary students saying that they did not know. Of the respondents who had an opinion, just over half of parents and just over 60% of middle and high school students and elementary students agreed that school lunch tastes good (Figure 15.) There was no statistical difference between districts in how parents or students rated how school lunch tastes.

Most of the comments about the taste and appeal of school lunch were negative. One student said, *"I do not eat school lunch because I refuse to pay for something that I don't want. I don't want it because it tastes bad."* Another middle school student said, *"The food is pretty greasy. Please change the pizza. It has a ton of crust on it (the dough) and the cheese and sauce tastes fake."* A high school student said, *"The food for lunch at the school tastes like it's all off brand."*

Figure 15. How School Lunch Tastes



### *Best Practices Model – Improved Quality of School Food*

*The Boulder Valley School District in Colorado is the first REAL (Responsible Epicurean and Agricultural Leadership) Certified school district in the country. BVSD's food service has a farm-to-school focus and offers gluten-free, dairy-free, and vegetarian options that are clearly labeled on their menus and website. Each year the district tests and incorporates new recipes. For the 2017-2018 school year some of the new recipes include: Vegetarian Mexican Quinoa Quiche, Chicken Ramen Bowl, Greek Empanadas, and Chickpea Masala with Flatbread. While the menu continues to offer kid-friendly favorites such as burgers, hot dogs and pizza, the focus is on quality, whole, non-processed ingredients. They eliminated chocolate milk and foods containing high-fructose corn syrup, added trans-fats, and added colorings/preservatives from their menu. All of their beef and chicken on the bone and nacho meat is hormone- and antibiotic-free, they offer hormone and antibiotic-free, nitrate and nitrite-free all beef hotdogs, all bulk milk is organic, they cook the food from scratch, and every single school has an unlimited salad bar filled with fresh fruit and veggies every day.*

*In addition to the high quality foods, the BVSD food program engages kids in nutrition education opportunities in several ways including taste tests of menu items and "Harvest of the Month" featured produce, chef demonstrations, Iron Chef competitions, farmer visits and field trips, and a "Taste of BVSD Food Festival" where parents, students and community members sample school food menu items while connecting with the school garden and farmer partners.*

*BVSD has a Free and Reduced Price Lunch eligibility rate of 20.6% (compared with 39.3% in Tompkins County.) This relatively low F/RP means the district's food services program must rely heavily on students who pay for their meals to support their meal program. BVSD charges significantly higher prices for meals at \$1.75-\$2.00 for breakfast and \$3.50-\$4.00 for lunch (compared to \$1.59 and \$2.60 in Tompkins County.) BVSD is a large district with over 30,000 students and a food services budget of over \$8 million. A district of this size has more buying power and an opportunity to realize greater efficiencies. Their food expenditures represent 37.3% of their total expense budget (compared 28.9% at ICSD.) The BVSD school district provides financial support to their food services department through their general fund. In 2016-2017, this support amounted to 6.7% of their total revenue sources. Clearly, the support from the general fund is important in making the food services financially viable while providing high quality, healthy meals.*

### **Variety in School Meals**

In qualitative interviews, students frequently commented on the lack of variety and options available in school meals. One student said, "School lunch does not provide enough variety, and it feels as if the same food is served from week to week." Another student agreed saying, "School lunch could have more variety."

Qualitative interviews with parents across all districts in the county echoed the student responses with many parents saying the school meals were did not offer enough variety, were low quality and did not meet their child's dietary needs. One parent said, "There is no variety in the menu. The same food is served week after week!" Another parent shared, "The variety is poor. In the first 8 days of school, sloppy joe & quesadillas were offered twice. For the month of September rotini with meat sauce was offered twice. For the last week of September, quesadillas were offered twice - making it offered 4 times in the month." Other stakeholders agree that the meals have a lack of variety. A school stakeholder said, "I



*think the menu itself needs to change more often and not be so consistent.” Another said, “I happen to see the lunches and hear what’s offered and usually they say today’s lunch is chicken nuggets and something else. There’s not a lot of variety offered, in my perception.”*

One food service director said there are practical challenges in trying to create variety in school meal menus. She said, *“The reason why menus don’t rotate much is the amount of paperwork and time to enter into the computer. Unfortunately I don’t know what government commodity is going to be on (the bid list.) You’re at the mercy of the commodities and they might not have everything available. It’s very challenging. You almost have to have more supply in house than you used to because of way we have to order now.”* She also noted that the changing requirements from the government take a significant amount of time to manage and necessitates constant training for staff and students about what makes a reimbursable meal. She said, *“I don’t think they understand the amount of time it takes away from a person. It went to nutrient analysis, then food-based and component driven, now you’re trying to train staff not about milk, but about fruits and vegetables. Now have to have five components, but have to have that other half portion be a specific type of vegetable. And it’s hard to get to their calorie count because you have to include any condiments. You have measure it and put it in there and figure all that in as well. It takes a long time and every year you’re updating and changing because the product changes. If you’ve changed your chicken nuggets, it changes everything.”*

A review of the menus of the local school districts revealed that some meals are repeated frequently throughout the month. Most school menus rely heavily on pizza, chicken nuggets and patties, hamburgers, and tacos or burritos (Table 35.)

*New Roots Charter School’s menu has very little repetition day to day and offers variety throughout the month. The program ensures the quality of the food by cooking one made-from-scratch entrée option per day. Each entrée is made available as both a meat-based and a vegetarian option. The school adds daily choice through serving leftovers from the previous day which results in the food service program having very little waste. The school also offers a substantial and appealing salad bar as well as several fruit options. Students reported satisfaction with the meal program and nearly universally said that the food is fresh, healthy, and tastes good.*

Table 35. Menus from November 2017 by District

	Elementary	Middle	High
ICSD	Turkey Wrap/Power Hummus Wrap Rajma/Toasted Cheese (2) Pepperoni/Cheese Pizza Chicken Nuggets/Patties (2) Italian Cheese Fries Cheese/Tuna Panini Tacos/Burritos (2) Meat Pizza Wrap Turkey Gravy Burger/Bean Burger (2) Hot Dogs/Corndogs Cheese/Chili Fries W African Beans & Greens/Toasted Cheese	Wraps/Mozzarella Sticks Rajma/Toasted Cheese (2) Pizza (2) Chicken Parm Sub Italian Cheese Fries/Turkey Sausage Sub (2) Chili Dogs/Paninis Spaghetti Burger/Bean Burger (2) Turkey Gravy Chicken Nuggets Taco Salad/Bean Burrito (2) Breakfast for Lunch W Africa Beans & Greens/Toasted Cheese	Taco Salad/Bean Burrito Rajma/Toasted Cheese (2) Meatball Sub Pretzel & Power Hummus/Chili Beef-a-Roni Pizza (3) Buffalo Chicken Leg Beef Stroganoff Chicken Parm Sub Burger/Hot Dog (2) Mac & Cheese Mozzarella Sticks Popcorn Chicken W African Beans & Greens/Pasta with Meat Sauce
Lansing	Chicken Nuggets/Sandwich (3) Hamburger (2) Sloppy Joe Pizza (4) Toasted Cheese (2) Taco Meatball Sub Chicken Quesadilla Rotini W/ Meat Chicken & Biscuit Hot Turkey Sandwich	Chicken Nuggets/Sandwich (3) Hamburger (2) Sloppy Joe Pizza (4) Toasted Cheese (2) Taco Meatball Sub Chicken Quesadilla Rotini W/ Meat Chicken & Biscuit Hot Turkey Sandwich	Chicken Nuggets/Sandwich (3) Hamburger (2) Sloppy Joe Pizza (4) Toasted Cheese (2) Taco Meatball Sub Chicken Quesadilla Rotini W/ Meat Chicken & Biscuit Hot Turkey Sandwich
Dryden	Chicken Nuggets/Patty (4) Burgers (2) Pizza (3) Fish Sticks Rib-B-Que/Meatball Sub French Toast Sticks Taco Chili Chicken Alfredo Bake Marinated Chicken Strips Tomato Soup/Toasted Cheese Choice Of Sandwich	Chicken Nuggets/Patty (4) Burgers (2) Pizza (3) Fish Sticks Rib-B-Que/Meatball Sub French Toast Sticks Taco Chili Chicken Alfredo Bake Marinated Chicken Strips Tomato Soup/Toasted Cheese Choice Of Sandwich Each Day As Well	Chicken Nuggets/Patty (4) Burgers (2) Pizza (3) Fish Sticks Rib-B-Que/Meatball Sub French Toast Sticks Taco Chili Chicken Alfredo Bake Marinated Chicken Strips Tomato Soup/Toasted Cheese Choice Of Sandwich Each Day As Well
Groton	Taco Mac & Cheese (2) Pizza (3) Cheeseburger Toasted Cheese/Soup Sloppy Joe Chicken Patty/Nuggets (2) Grilled Ham & Cheese Chili Roast Turkey W/ Gravy Pasta W/ Meat Sauce Hot Dog Grilled Turkey And Cheese French Toast Sticks Daily Sandwich Option Daily Salad Option	Taco Mac & Cheese (2) Pizza (3) Cheeseburger Toasted Cheese/Soup Sloppy Joe Chicken Patty/Nuggets (2) Grilled Ham & Cheese Chili Roast Turkey W/ Gravy Pasta W/ Meat Sauce Hot Dog Grilled Turkey And Cheese French Toast Sticks Daily Sandwich Option Daily Salad Option	Taco Mac & Cheese (2) Pizza (3) Cheeseburger Toasted Cheese/Soup Sloppy Joe Chicken Patty/Nuggets (2) Grilled Ham & Cheese Chili Roast Turkey W/ Gravy Pasta W/ Meat Sauce Hot Dog Grilled Turkey And Cheese French Toast Sticks Daily Sandwich Option Daily Salad Option
Newfield	Chicken Patty/Nuggets (2) Meatball Sub Turkey Gravy & Rice Chicken Fajita Wrap Turkey Sub French Toast Sticks Eskimo Adventure Bbq Rib Sandwich Hamburger	Chicken Patty/Nuggets (2) Meatball Sub Turkey Gravy & Rice Chicken Fajita Wrap Turkey Sub French Toast Sticks Eskimo Adventure Bbq Rib Sandwich Hamburger	Chicken Patty/Nuggets (2) Meatball Sub Turkey Gravy & Rice Chicken Fajita Wrap Turkey Sub French Toast Sticks Eskimo Adventure Bbq Rib Sandwich Hamburger

	Elementary	Middle	High
	Turkey & Gravy Piggy Wiggy Spaghetti & Meat Sauce Bbq Chicken Sandwich Oriental Chicken W/ Rice Beefie Noodle Bake	Turkey & Gravy Toasted Cheese & Tomato Soup Piggy Wiggy Spaghetti & Meat Sauce Bbq Chicken Sandwich Oriental Chicken W/ Rice Beefie Noodle Bake Italian Dunkers	Turkey & Gravy Toasted Cheese & Tomato Soup Piggy Wiggy Spaghetti & Meat Sauce Bbq Chicken Sandwich Oriental Chicken W/ Rice Beefie Noodle Bake Italian Dunkers
TST BOCES	Turkey & Cheese Sandwich (2) BBQ Chicken Sandwich (2) Fish Sandwich Hotdog (3) Chicken Patty/ Nuggets (3) Pizza (2) Turkey Taco Salad Hamburger Sloppy Joe Corndog Mac & Cheese	Turkey & Cheese Sandwich (2) BBQ Chicken Sandwich (2) Fish Sandwich Hotdog (3) Chicken Patty/ Nuggets (3) Pizza (2) Turkey Taco Salad Hamburger Sloppy Joe Corndog Mac & Cheese	Turkey & Cheese Sandwich (2) BBQ Chicken Sandwich (2) Fish Sandwich Hotdog (3) Chicken Patty/ Nuggets (3) Pizza (2) Turkey Taco Salad Hamburger Sloppy Joe Corndog Mac & Cheese
New Roots			Lasagna Turkey Sub Or Cheese Sub Spaghetti With Meat Or Tomato Sauce (2) Crispy Baked Chicken/Crispy Baked Tofu Chicken & Cheese Burrito/Bean And Cheese Burrito Hamburgers/Veggie Burgers Cold Italian Sub/Italian Provolone Sub Grilled Cheese/Tomato Soup Beef Or Bean Tacos Ham Sub/Cheese Sub BBQ Chicken/Tofu Sandwich Chicken/Bean Quesadillas Mac & Cheese Black Beans & Rice Meat/Veggie Chili Hot Dogs/Not Dogs
Trumansburg	Mac & Cheese (2) Oven Fried Drumsticks Pizza (5) Grilled Cheese/Tomato Soup (2) Chicken/Cheese Quesadilla Pasta Marinara/Meat Sauce BBQ Pulled Pork/Grilled Chicken Sandwich Beef/Chicken Tacos French Toast/Sausage Roasted Turkey/Gravy Hamburger Chicken Fajita Oven Fried Chicken w/ Waffles	Mac & Cheese (2) Oven Fried Drumsticks Pizza (5) Grilled Cheese/Tomato Soup (2) Chicken/Cheese Quesadilla Pasta Marinara/Meat Sauce BBQ Pulled Pork/Grilled Chicken Sandwich Beef/Chicken Tacos French Toast/Sausage Roasted Turkey/Gravy Hamburger Chicken Fajita Oven Fried Chicken w/ Waffles	Mac & Cheese (2) Oven Fried Drumsticks Pizza (5) Grilled Cheese/Tomato Soup (2) Chicken/Cheese Quesadilla Pasta Marinara/Meat Sauce BBQ Pulled Pork/Grilled Chicken Sandwich Beef/Chicken Tacos French Toast/Sausage Roasted Turkey/Gravy Hamburger Chicken Fajita Oven Fried Chicken w/ Waffles

Some stakeholders noted that there are some efforts in local schools toward offering options from a variety of cultures and culinary viewpoints had improved the taste and appeal of school food. One stakeholder said, *“You have some parts of the district that have incredible diversity in terms of international cultures coming together within a school which actually makes it somewhat easier to get kids to eat some of the healthier foods in some ways.”* Another stakeholder said, *“I know the school lunch program is offering various ethnic foods which is wonderful.”* A school-based stakeholder said, *“We had a multicultural day with different foods representing a country. I was pleasantly surprised at*

*the number of kids that took a bite of foods they hadn't tried before."* Some schools offer a salad bar which was noted as a success by stakeholders associated with those schools. One stakeholder said, *"I know at some elementary schools we have great principals integrating salad bars."* One stakeholder said, *"At our school, we have a salad bar which is nice. There are vegetarian choices and (the cafeteria manager) makes fresh things also. I think usually, it's not every day, there's usually always something that's homemade. I think they are working do oatmeal in the morning and homemade breakfast bars."* However, these options are not available at all schools or to all students.

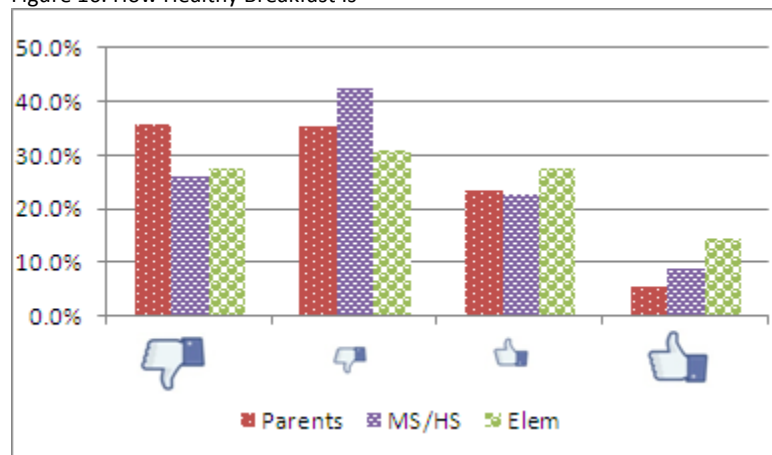
### **Nutritional Value of School Food**

Just over half (51.7%) of parents and 41% of middle and high school students said didn't know how healthy school breakfast while 19.7% of parents and 17.5% of middle and high school students said that they did not know how school lunch how healthy school lunch is.

### **School Breakfast**

The vast majority of parents (71.3%) and middle and high school students (68.5%) said they did not think school breakfast is healthy (Figure 16.) Fewer, but still the majority of, elementary students (58.4%) agree that school breakfast is not healthy. Several students noted that the options available for school breakfast are not nutritionally balanced. Some students felt the breakfast options were not appropriate for fueling their day. One student shared, *"As an athlete it's hard to find healthy foods that will prepare you for the upcoming day and workouts after school."* Students also said they believed there was a health-taste trade-off. One student said, *"The best things are un-healthy such as the cinnamon roll or the scone and the healthier things don't taste that good."* A couple of students said their dietary restrictions made it difficult to participate in school breakfast. One student shared, *"I ate school breakfast relatively often last year, but I don't eat dairy, so it was difficult for me to find options. We didn't always have stuff at home, so I went without breakfast sometimes."*

Figure 16. How Healthy Breakfast Is



Many parents agreed that the options available for school breakfast are not healthy, are high in sugar, and are frequently highly processed. One parent said, *"I observe that there are a lot of sugary foods in the school breakfast. I prefer more protein or less sugar for my kids at that meal."* Another said, *"I have worked in the school as an aide and I don't think the school breakfast is always super healthy, especially the waffle sausages and packaged pancakes which kids seem to like best."* Another said, *"I see the school breakfast every day. They are mostly sugar and other carbohydrates and not good quality."* Another parent shared, *"My children get school breakfast, but are often rushed through eating it and often go*

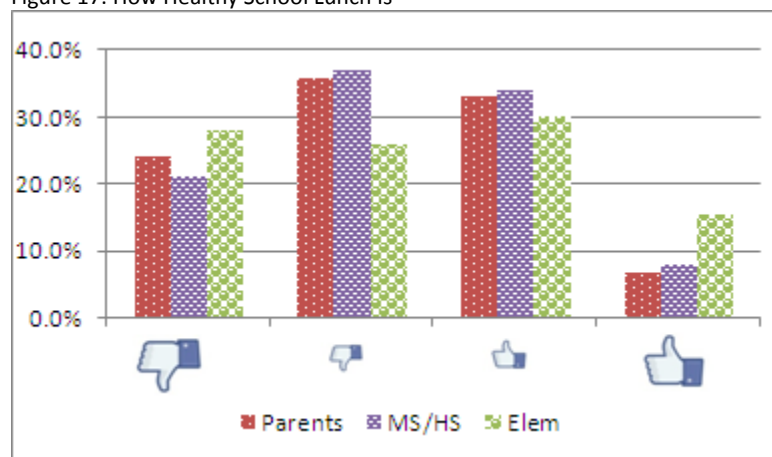
without because of classroom teachers not allowing it. We are glad school breakfast is available but it is often sugary, has lots of artificial additives, and is not open late enough for kids to finish.” There was no statistical difference between districts in how parents or students rated how healthy school breakfast is.

School stakeholders also agreed that school breakfast is generally not healthy. One principal said, “We have French toast strips and syrups first thing in the morning. The kids want it, it’s appealing. But it’s really high in sugar and not high in protein. I think that’s a challenge that many of our staff feel is a problem. It’s also really enticing for kids, they want it, they are stoked for it.” Another principal agreed saying, “We have over the years experienced some challenges with breakfast and considering what exactly is a healthy breakfast. Sometimes what teachers saw was high sugar cereal or chocolate milk. I thought we can do better than that and worked with the cafeteria staff. We have a high percentage of kids who come and take advantage of our breakfast. And we have changed. We’ve done things like yogurt parfaits. They’ll do an egg sandwich once a week. They still do the French toast sticks and things like Lucky Charms for breakfast. We have both options still and I would say that’s an area where I still think we have a lot of room to improve. Getting more protein and selections that are actually going to sustain energy and make kids feel full.”

### School Lunch

School lunch fared slightly better in terms of how healthy survey respondents think it is, but the majority indicated they think school lunch is not healthy. Sixty percent of parents, 58.1% of middle and high school students and 54.1% of elementary students gave lunch a “thumbs down” when asked how healthy their school lunch is (Figure 17.) There was no statistical difference between districts in how parents or students rated how healthy school lunch is.

Figure 17. How Healthy School Lunch Is



Many parents commented negatively on the nutritional quality of the food at school meals. One parent said, “They do not eat school meals because the quality is not good.” Another parent noted, “I pack lunches for my kids because I don’t think the school lunches have food that I want my kids eating. I know how the system works. It’s streamlined. They bid for the government contracts, so it’s corporate, low-end food. Even if it’s well-prepared, it’s low-end product. I eat organic all the time and I want to know where my food comes from and so I don’t want my kids to participate in this.” A parent from Trumansburg shared, “The best part of school meals is that it is consistent, available, and affordable. The worst part is that the quality in terms of food value for the calories is really low. They are still using cheese from a can. My kids come home and said they weren’t even nachos. It’s one thing to say okay I am going to feed my

*kid a series of bread and cheese in various versions, mac and cheese, pizza, nachos, bagel, but at least the cheese needs to be cheese. They mostly don't eat the school meals because of that."*

School stakeholders agreed that the quality of the food available through the school meals was generally not healthy. One teacher said, *"Breakfast and lunch are, in my opinion, really unhealthy. Everything that comes here is prepared somewhere else or it's in a bag and so full of preservatives. Pancake in bag... taco in a bag..."* Another teacher said, *"In my opinion, quite honestly what we're serving for breakfast and lunch leaves a lot to be desired. I have a hard time believing that it's got to be leftover pizza for breakfast. And breakfast is high sugar stuff and we're still serving chocolate milk at lunch. The excuse is that at least it gets them to drink the milk. We had gotten rid of the Trix yogurt stuff and we had Chobani coming in, all of a sudden we can't get that any more. The high dye stuff is coming right back in again. Why are doing this? It's cheap, the kids won't like the healthier versions and what we wind up seeing is some sort of taco Tuesday, chicken nuggets, corn dog, pizza. There's very little fresh food. They'll dice up these little tiny plastic cups of gross tomatoes, cucumbers or iceberg lettuce and say you can have one ¼ cup size. There is very little attempt to make it look appealing."* A principal noted, *"Sometimes we see get a kid get a two Lucky Charms and a chocolate milk for breakfast and lunch."*

Program observations and qualitative interviews revealed a wide range of approaches to school meals between districts. Some schools provide meals where nearly all of the foods are that *"made from scratch"* foods whereas others rely on a significant portion of processed, pre-packaged food options for their meals. Some districts reported making 50% or less of their food from scratch while others make 90% or more of their food from scratch. This was seen as a significant challenge for many stakeholders. A stakeholder from one of the districts providing mostly processed foods said, *"It's the typical stereotype school lunch reputation with of a lot of kind pre-fab food that isn't very inspiring to kids. Kids eat it because they need food. Overall the feeling about the food that's served is not enthusiastic. There is lot of repetition and a lot of processed foods. It's not a very inspiring menu."* Another stakeholder said, *"I'm not clear on the FDA guidelines, but there are schools locally that have much more inspired and exciting and edible options and I'm not sure why it is. The message we get is this is what's allowed under federal guidelines, but I've got to believe that it's possible to have more colorful, exciting, choices than we have. I think the overall sentiment has seemed to be that running a school cafeteria is a difficult business. She clearly cares, but she doesn't seem like it's her focus to get more of the fresh and interesting foods."* Some stakeholders noted that part of the challenge with providing food from scratch is that schools don't have the necessary equipment to do so. One principal said, *"The cafeteria manager doesn't do a lot of cooking because they don't have the facilities. The challenge is there's not a full kitchen."*

The availability of unhealthy options at breakfast and lunch was considered a significant challenge by some parents because they believed their children would choose those options if they were available to them, but would be satisfied with healthy options otherwise. One parent said, *"My child loves to eat school breakfast because she eats sugar cereal and chocolate milk. She doesn't choose the fruit and yogurt or other healthy offerings."* Another parent shared, *"He would love to have school lunch every day, but I do not feel that it is healthy enough. Canned fruit instead of fresh, pizza, chicken patties and such are not a healthy option. Also, he is asked every day if he wants chips or a cookie from the person he "pays" at the end and is too young to say no. Obviously he says yes, and also doesn't understand that it is not free, since they are asking him if he wants it."* Another parent said, *"The menu offers healthy well rounded choices, but there are additional options that kids can choose that are less healthy. They told me they had Lucky Charms cereal for lunch one time!"* Another parent shared, *"I really appreciate the work done to bring more healthy options to the lunch line but I have observed that these options go un-recommended and sometimes are not even visible (i.e. bean burritos). It is very hard for children to*



*choose these options when they are up against hot dogs, chicken nuggets, Dorito bags.” Another parent shared, “It made me upset that chocolate milk was so readily accessible to my child, because it’s unnecessary extra sugars. He likes regular milk, but will always choose the unhealthy option if I’m not there to instruct him.” A school stakeholder noted hearing the same feedback from parents. She said, “I’ve got parents complaining and I look at the details and their kids are buying cookies or chips each day. We try to make it understandable to families that you can say my kid only gets extra snack on Fridays, but that’s a financial hit to the cafeteria. It’s a fine line – don’t want cut into “profits”, but I understand the parents concern about how did (the money) go so quick?”*

### *Best Practices – “Scratch-Cooking”*

*The Greeley school district in Greeley, CO shifted the orientation of their food services department to eliminate highly processed foods and prepare fresh meals from scratch. After being granted a LiveWell CO School Meal Assessment, the district engaged in a complete business plan remodel and renovated the then dormant central production kitchen facility and transitioned back to a cooking from scratch model of preparation. The district recreated their entire system: the foods ordered, how they were prepared, the recipes, and the menus.*

*The district relies heavily on both dietitians and chefs to create food that is healthy, complies with USDA regulations, and tastes good. One of the primary challenges the department faced in making the changes was getting buy-in from staff. A key to getting that buy-in was to change the orientation of the staff to become nutrition professionals. The associated director said they told employees, “This is about career growth – you are more than opening a box and warming something up.” The district invested in chef coats so staff looked the part and had them participate in culinary boot camps to learn basic knife skills and recipe prep to give them the background and knowledge they needed.*

*The changes in the Greeley food services department have had positive impacts beyond offering better quality and healthier foods to students. It has created a more defined career pathway for nutrition services, stronger partnerships, and more opportunity to showcase local produce, meats and poultry. As a high free and reduced lunch eligible school district, Greeley has somewhat of a guaranteed audience and school meal participation which has been hugely beneficial in maintaining their revenue base. When making the transition to cooking from scratch, the district was able to eliminate labor from individual serving sites and reallocate that labor to the central production kitchen. In terms of food costs, the director noted, that it was not their experience that the shift to scratch cooking was expensive. She said, “I can pay Tyson to make a chicken nugget or I can reinvest in my community and teach my staff to do that. When you’re buying a chicken nugget, you’re paying for it to get cut, breaded and boxed. When we buy raw chicken breast, we invest in the labor. You have to have culinary processes in place and take advantage of economies of scale. The cycle menu and the recipes and the culinary processes have to be solid in order to maintain food costs. A systems thinking approach is necessary.”*

*In addition to being responsible for meals, Greeley’s food services department is responsible for wellness services making it easier to market and promote the meals through nutrition education modules like their “Chef in the Classroom” program. The associate director noted that the nutrition education aspect was critical to ensuring the success of the food services program. She said, “You can have a great program and provide the best nutrition, but if kids don’t know why to eat it, it defeats the purpose. That is the foundation before anything else.”*

### Special Diets

Several parents noted that their children had specific dietary challenges that made the school meals difficult to participate in. A parent from Dryden said, *“My child is diabetic. She cannot participate in the school lunch program because of the corn syrup content, though she does eat school pizza. I purchase food from Aldi’s especially to meet the needs of my diabetic child. The corn syrup content is most challenging aspect of school meals. The schools should make meals again, instead of using processed foods.”* A parent from Lansing mentioned, *“Both my kids are vegetarian and so trying to balance their meals is a challenge. Also my daughter has tree nut allergies and doesn’t like spicy foods. The school meals are not focused for vegetarians or for allergies. My kids don’t eat them. It would be easier if they were because we both work. They should focus on fresh foods besides salad. The school should be open to someone from the community coming in and helping with meals.”* Another parent from Lansing said, *“We have a diabetic child so we are learning to cook better. We do not buy school meals because our girls were not making the best choices available to them. They also didn’t like it.”*

Students also said they had challenges with dietary restrictions and the options available at school meals. One student said, *“I’m vegetarian. There’s not much as of that this year. I wish there were signs that say what kinds of gluten free or vegetarian options there are.”* Another said, *“I have a special diet and can only eat some parts of the school lunch. So, I bring food from home.”* Another remarked, *“I’m gluten free and there are almost no options for that.”*

### Time and Environment

When asked a series of questions about whether their children have time to eat meals either at home or at school (Table 36), over half of parents indicated that their child does not have enough time to eat school breakfast and over a third said their child does not have time to eat breakfast at home. About half of parents said their child doesn’t have enough time to eat school lunch and nearly three-quarters said the lunch lines are too long. There was no statistical difference between districts in how parents responded to questions related to time to eat.

Table 36. Parents’ Perception of Students’ Time for Meals

<i>Which of the following statements are true:</i>	<i>Always True</i>	<i>Sometimes True</i>	<i>Never True</i>
My child doesn’t get to school early enough to get school breakfast.	24.0%	32.1%	43.9%
My child doesn’t have enough time to eat school breakfast	20.3%	34.1%	45.6%
My child doesn’t have time to eat breakfast at home	3.0%	33.1%	64.0%
My child doesn’t have enough time to eat school lunch	9.1%	40.0%	50.9%
The lunch lines are too long	16.0%	57.1%	26.9%

Surveyed students were much less likely than parents to say they don’t have enough time to eat school meals with fewer than 20% of students saying they don’t have time to eat breakfast either at school or at home and fewer than 10% saying they don’t have enough time for lunch (Table 37.) However, a quarter of elementary students and nearly half of middle and high school students said lunch lines were too long. There was no statistical difference between districts in how students responded to questions related to time to eat.

Students participating in qualitative interviews and focus groups consistently noted that they did not have enough time for lunch. Many students said they choose to bring lunch because the lunch lines are too long and standing in line reduces their lunch period too much. An elementary student said, *“It’s*



*much easier to have your own lunch. You can just sit down and eat it. If it's hot lunch, you just have to wait in line. Wait and wait and wait."* Another student agreed saying, *"When you're waiting in line, by the time you sit down you only have 10 minutes."*

Table 37. Students' Perception of Time for Meals

<i>Which of the following statements are true:</i>	<i>Percent Answering Yes</i>		
	<i>Elem.</i>	<i>MS/HS</i>	<i>All Students</i>
I don't get to school early enough to get school breakfast.	10.3%	22.5%	17.6%
I don't have enough time to eat school breakfast	12.3%	25.2%	20.1%
I don't have time to eat breakfast at home	11.6%	17.4%	15.1%
I don't have enough time to eat school lunch	8.2%	7.3%	7.7%
The lunch lines are too long	25.3%	43.6%	36.3%

Middle and high school students have more flexibility in when and where they eat or drink which is reflected in how often they report eating in the classroom or in the hallways. On average, middle and high school students eat in the classroom nearly two days a week and eat or drink in the hallways one day a week. High school students indicated they eat food in the classroom more frequently than middle school students<sup>50</sup>.

Table 38. Number of School Days per Week Students Report Eating or Drinking in Hallways or Classrooms

	<i>Number of School Days per Week</i>						<i>Mean</i>
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	
Eat/drink in the hallways at school	59.2%	15.2%	7.9%	6.3%	1.0%	10.5%	1.06
Eat/drink in the classrooms at school	34.2%	17.1%	12.4%	14.0%	4.7%	17.6%	1.91

Table 39. Average Number of Days Students Eat in Classrooms

<i>Middle School Students</i>	<i>High School Students</i>
1.0 days	2.29 days

Several parents said that their children do not have enough time to eat their meals. One parent said, *"From what I hear, not only from my child, but from her friends at the high school, there is no time between classes to stand in line, get breakfast and make it back to class on time. It's similar and even worse at lunch time."* Another parent shared, *"He feels waiting in line so long cuts his eating time and forces him to throw away food as he's not allowed to take the uneaten apple or banana back to class or to eat later at home."* Some parents noted the timing of lunch was inappropriate. One parent said, *"My son only has a scheduled lunch period every other day!"* Another said, *"My son's lunch period is at 10:30 am. This is an inappropriate time for lunch. He has just eaten breakfast at 8:00 am, and doesn't get home from school until after 4:00. By the time he gets home from school (especially if he has an after school activity) his blood sugar is low and this has emotional, mental and physical consequences."* School stakeholders also noted this challenge. One principal said, *"Some kids go to lunch between 10-11 which is early. Other kids are waiting 'til 12:15."*

Several school stakeholders agreed that students do not have enough time to eat their meals. One principal said, *"Some of the students are dissuaded by long lines. The long lines were a big issue at the beginning of year and so some gave up and decided not to get in line. It's not what we hoped."* Another

<sup>50</sup> ANOVA between groups,  $F=21.248$ ,  $p=.000$

principal shared, *“We have one line and that’s the biggest problem. If there’s a delay in the line, there’s a delay in the eating, and a delay in getting back to instruction. At breakfast they are rushing. We are trying to get them in, fed, and back to class as quickly as we can. At lunch they have 30 minutes, so sometimes it’s just the managing the line because it’s taking so long.”* A food services director said, *“At our middle school, we have low participation in breakfast because there’s not enough time. They’re not allotted any time to get it. It’s frustrating to me.”*

Stakeholders also noted that the environment where students eat lunch is not conducive to a healthy approach to nutrition. One stakeholder said, *“You’re in a really noisy cafeteria, bright lights, lots of action. It’s not conducive to teaching healthy habits. It’s far from ideal in terms of creating opportunities to talk about food. It’s not a social time or really an eating time, it’s just eat and run. Also, you only have two adults to a large amount of kids so no one is guiding their choices.”* Stakeholders also noted that the cafeteria workers don’t necessarily embrace an orientation toward customer service. One principal said, *“I think that the adults that work in cafeterias don’t see their role as customer service in anyway which is a big issue. I think there is a mental state or way of thinking that needs to be flipped. A complete paradigm shift on behalf of the front line of the cafeteria.”* Another stakeholder said, *“The biggest obstacle in my mind is getting the food service on board with recognizing the presentation and marketing and atmosphere really makes a big difference.”*

The challenges associated with short lunch periods were seen in program observations. Schools where students had less than 30 minutes for lunch were chaotic and students were observed being rushed through their lunch. Some students were eating their food as they were being led up to the compost and trash bins. At other schools where the lunch period was 10-15 minutes longer, the tone of the environment was much calmer and students were able to eat and enjoy their meals.

Food services directors note that they have challenges with the timing of meals as well. One director said, *“We have an hour to get the whole school fed. I don’t understand the scheduling aspect of it. The timing for lunch has dropped since they condensed the schedules.”*

### *Best Practices – Family-Style Meals*

*Webster Elementary in Minneapolis, MN has been piloting a family-style meal service as part of their school lunch program. During the meal, school staff and volunteers monitor portion sizes and "meal pattern requirements," as mandated by the NSLP. Students help set the table, pass the food, and clean up afterwards. Students also serve as "table leads" or "hosts," taking milk or water orders from their tables, and then pouring it into cups to serve to their peers. Students that bring their lunch also participate in family meals by sitting at the tables with their peers eating school lunch.*

*A news article on the elementary school's pilot noted that "Webster's lunchtime is an atmosphere that Principal Ginger Davis Kranz said instills life skills and a more relaxed, rather than rushed, environment. She said, "I wanted it to feel like a calm, enjoyable mealtime where kids could appreciate their food, appreciate good conversation and maybe even advance their learning through other types of conversations they might have — or also through jobs that they have."<sup>51</sup> Another news article quoted Kranz as saying that family-style dining aims to build an appreciation for food and where it comes from; create "an awareness of self and others"; produce an understanding of healthy eating; provide a calm space for eating, learning and manners; and give students time to eat and socialize in a healthy way."<sup>52</sup>*

*A recent report on research on the effectiveness of family-style service in school cafeterias found that serving students "family-style" meals versus the traditional "cafeteria-style" meals have other positive effects on student nutrition. Studies showed increased intakes of protein, energy, and micro-nutrients and reduced waste in addition to the development of healthy eating behaviors."<sup>53</sup>*

### **Portion Size**

Stakeholder interviews with parents indicated concern about the small portion sizes in school meals. A parent from Dryden said, "Not enough food is provided for lunch. The serving sizes don't take into account the grade-level or size of the child." Another parent from Dryden agreed, "My kids complain about lunch not being enough food." Another parent with a child in ICSD said, "Our biggest issue is that there is not enough food served when my child gets school lunch. The portion sizes are too small for many children. My child has to bring extra food from home to supplement the lack of food served." Another ICSD parent shared, "The portions for all the meals served in the ICSD schools are not enough for children to feel full. Many children complain on a daily basis that they are still really hungry."

When asked in the survey, about an equal number of elementary students (12.3%) and middle/high school students (13.3%) said they're still hungry after eating breakfast. More middle and high school students (24.3%) than elementary students (13.7%) said they are still hungry after eating lunch. There was no statistical difference between districts in whether students indicated they were still hungry after eating. A handful of students in qualitative interviews noted that the portion sizes at school meals are insufficient. One student said that "the quantity for breakfast is always too small to keep me full all day." Several students said that they needed to buy second portions in order to feel satisfied which made the school meals too expensive.

<sup>51</sup> *Family Style Lunches Rule at Webster Elementary in Minneapolis*, Beena Raghavendran, Star Tribune, January 4, 2017

<sup>52</sup> USDA Blog: 'Minneapolis School Embraces Family-Style Dining', Susan Jones, CNSnews.com, December 21, 2016

<sup>53</sup> *Building Healthier Children Through Family-Style Service in School Cafeterias*, Jamie Coborn, Len Marquat, Teri Burgess-Champoux, & Renee Rosen, The Journal of Child Nutrition and Management, Volume 39, Issue 1, Spring 2015

Table 40. Portion Size Indicators by Grade Level

<i>Which of the following statements are true:</i>	<i>Elem.</i>	<i>MS/HS</i>	<i>All Students</i>
I'm still hungry after eating breakfast	12.3%	13.3%	12.9%
I'm still hungry after eating lunch	13.7%	24.3%	20.1%

How often students eat school meals has a bearing on whether they say they are still hungry after eating. There is a statistically significant correlation<sup>54</sup> for both elementary students and middle and high school students<sup>55</sup> between the number of days elementary students eat breakfast and whether they said they are still hungry after eating breakfast. This indicates that students who eat school breakfast were more likely to say they were hungry after eating. Survey results show a similar finding for school lunch. Both elementary<sup>56</sup> and middle and high school students<sup>57</sup> were statistically more likely to say they were still hungry after lunch the more days they eat school lunch.

Some food service directors also had concerns about portion sizes. The NSLP has stringent rules on the number of calories allowable through school meals. One director said, *"The portion sizes aren't enough. Our high school students won't eat school lunch as a result. When the portion sizes went down, kids started packing lunch. We want to change that. We need to up flavor and figure out how to bulk meals up and make them more appealing."*

### **Stigma**

Some stakeholders suggested that stigma associated with eating school breakfast and lunch may be partially responsible for the lack of participation in the program. However, data from the student surveys and qualitative information from students indicates that stigma is not as relevant as may be assumed. A very small percentage of students said that eating school lunch (4.7%) or breakfast (7.1%) is embarrassing. A high school student said, *"Nobody is ever embarrassed about getting school lunch."* Another high school student who receives free lunch said, *"It's not a huge issue for me. I'm not really sure about others, but I feel like it wouldn't be (an issue for them)."* Another student said, *"I don't think people care too much."* Interviews with elementary students echoed these sentiments with the majority of students saying they didn't think there was any judgment related to whether a student eats school lunch or lunch from home. There was no statistical difference between districts in whether parents or students thought eating school breakfast or lunch is embarrassing.

Table 41. Parent Perception of Stigma with School Meals

<i>Which of the following statements are true:</i>	<i>Always True</i>	<i>Sometimes True</i>	<i>Never True</i>
It's embarrassing to eat school breakfast	4.3%	21.7%	73.9%
My child's friends don't eat school breakfast	17.4%	58.7%	23.9%
My child's friends don't eat school lunch	3.5%	62.4%	34.1%
It's embarrassing to eat school lunch	1.4%	13.4%	85.1%

<sup>54</sup> Pearson correlation coefficient  $r=.338$ ,  $p=.000$

<sup>55</sup> Pearson correlation coefficient  $r=.291$ ,  $p=.000$

<sup>56</sup> Pearson correlation coefficient  $r=.176$ ,  $p=.046$

<sup>57</sup> Pearson correlation coefficient  $r=.460$ ,  $p=.000$

Table 42. Student Perception of Stigma with School Meals

<i>Which of the following statements are true:</i>	<i>Elem.</i>	<i>MS/HS</i>	<i>All Students</i>
My friends don't eat school breakfast	9.6%	33.0%	23.6%
It's embarrassing to eat school breakfast	4.8%	8.7%	7.1%
My friends don't eat school lunch	6.8%	18.3%	13.7%
It's embarrassing to eat school lunch	4.1%	5.0%	4.7%

Stakeholders also suggested that there is a social divide in schools between students who participate in the school breakfast and lunch program and those who don't. However, data from the student surveys show no correlation between the number of days students eat breakfast and lunch and whether they said their friends don't eat school breakfast or lunch.<sup>58</sup>

Table 43. Percent of Students Reporting Friends Don't Eat School Meals by the Number of Days Eating School Meals

<i>Percent of students saying "My friends don't eat school..."</i>	<i>Number of School-Days Eat School Meals</i>					
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Breakfast	25.4%	20.0%	20.0%	23.1%	0.0%	23.7%
Lunch	14.9%	9.5%	16.7%	9.1%	27.8%	15.7%

### **Communication**

It is clear that conversations about school breakfast and lunch are not taking place in many households. Two-thirds of parents don't know how their child thinks school breakfast tastes and 66.9% of students said they didn't know how their parents' thought school breakfast tastes. In addition, 53.1% of students said they didn't know how healthy their parents thought school breakfast is. One in five parents said they didn't know how their child thinks school lunch tastes, but half of students said they don't know what their parents' think of how school lunch tastes and 44.9% said they don't know how healthy their parents think school lunch is.

About a third of parents said they tell their child what to choose for lunch. Unsurprisingly, parents of younger children are more likely to indicate that they tell their child what to choose for lunch than parents of older children (Table 44.) Very few students reported their parents tell them what to choose for lunch. Less than 7% of elementary students and 3.2% of middle and high school students said they get guidance from their parents (Table 45.)

About two-thirds of parents surveyed believe that school adults suggest healthy options for lunch (Table 44.) Students were much less likely to indicate that school adults guided their choices. Only 13.7% of elementary students and 11.5% of middle and high school students responded affirmatively that a school adult suggested healthy options (Table 45.)

Table 44. Parent Communication and Perception of School Adult Guidance by Grade Level of Child

	<i>Responding Always True or Sometimes True</i>			
	<i>Elem.</i>	<i>Middle</i>	<i>High</i>	<i>All</i>
I tell my child what to choose for lunch	45.9%	36.0%	22.1%	34.4%
The school adults suggest healthy options for lunch	70.6%	63.5%	59.5%	64.7%

<sup>58</sup> Two-tailed Pearson Correlation, breakfast:  $r=-.031$ ,  $p=.567$ ; lunch:  $r=.031$ ,  $p=.570$

Table 45. Student Communication with Parents and School Adults by Grade Level

<i>Which of the following statements are true:</i>	<i>Elem.</i>	<i>MS/HS</i>	<i>All Students</i>
My parents tell me what to choose for lunch	6.8%	3.2%	4.7%
The school adults suggest healthy options for lunch	13.7%	11.5%	12.4%

### *Parent to Child Communication*

Information gleaned from qualitative interviews with both parents and students suggest a significant communication disconnect between parents, students and schools across the county. Some parents noted they don't have many conversations with their children about the food they get at school. One Dryden parent said, *"I assume they eat everything because they don't come home hungry."* A parent from Groton said, *"My son doesn't share much about what he eats."* Another Groton parent shared, *"I don't know what they eat for lunch."* One parent from Ithaca said, *"I assume the school is making something healthy, nutritious and tasty."* In direct contradiction, this parent's child commented, *"Sometimes the food is good for you and sometimes they don't try. They make big pizzas that are greasy and they have vending machines with a lot of garbage. I don't think they care as much as they should."* Another Dryden parent said, *"School meals are convenient, but I do not know what the kids actually eat."*

### *School Adults to Student Communication*

Several parents noted that a lack of guidance at school meals leads their children to make unhealthy choices. One Dryden parent said, *"School meals are convenient, but my child doesn't always choose the most nutritious options."* Another Dryden parent said, *"Parents can't see what the kids eat every day because they have choice. Kids are not required to buy meals, but can substitute with other foods."* A parent from Trumansburg noted, *"The school allows the kids to use their lunch money for ice cream. My son eats a treat once or twice a week unless I verbalize that he is not allowed to. It is somewhat frustrating."* Some parents responding to the survey said that schools should offer more guidance to children in selecting healthy meals. One parent suggested, *"More help for the little ones in choosing fruits or the meal - they have no clue how to do it on their own."* Another parent said, *"I think that younger children don't have the discipline yet to always make healthy choices and that they need assistance with choosing food if there is an option. For example, there is a salad bar at my younger son's school and I don't have the confidence he is selecting the healthy vegetables without someone helping put them on his plate. That is why I only allow him to buy school lunch a few days per week. That way, I know what he is eating. My suggestion would be for elementary school children to have someone make sure a fruit and/or vegetable gets on their plates if they purchase school lunch."*

### *Menu Availability*

About a third of parents said their child would eat school breakfast or lunch more often if they knew what was being served (Table 46.) Significantly fewer students indicated they would eat school breakfast (9.9%) or lunch (9.9%) more often if they knew what was being served (Table 47.) This suggests that any kind of "in advance" marketing would be best focused on

*Trumansburg School District has begun implementing several changes to their food services including redesigning their menu, minimizing processed ingredients, eliminating sugary cereals, and offering homemade oatmeal every day.*

*Trumansburg has also implemented a new system, Nutrislice, for sharing information about the menu and the nutritional content of the foods served at lunch. When fully implemented, the online system will not only provide daily menu information, but also pictures and descriptions of each item. The Nutrislice system also allows the food services department to share carbohydrate and fiber data for each meal.*

parents rather than students. Several students noted that they would like more information on what was being served, but want that information available in the moment at breakfast or lunch. One student shared, *“I don’t think (the menu information) is written up clearly. You go through and you figure it out. You learn by experience.”* School stakeholders noted that meal information is not easily accessible. One school official said, *“That information isn’t necessarily posted and out there in a way that’s easily visible.”*

Table 46. Parents’ View of Importance of Menu Information

<i>Which of the following statements are true:</i>	<i>Always True</i>	<i>Sometimes True</i>	<i>Never True</i>
My child would eat school breakfast more often if I knew what was being served	7.2%	26.6%	66.2%
My child would eat school lunch more often if I knew what was being served	6.5%	30.0%	63.5%

Table 47. Students' View of Importance of Menu Information

<i>Which of the following statements are true:</i>	<i>Elem.</i>	<i>MS/HS</i>	<i>All Students</i>
I would eat school breakfast more often if I knew what was being served	13.0%	7.8%	9.9%
I would eat school lunch more often if I knew what was being served	14.4%	12.8%	13.5%

#### *Parent to School Communication*

School stakeholders and food service directors said that many parents were not engaged with the school or the meals their children are eating. One director said, *“We need to get more awareness by parents.”* Another said, *“We are trying to change the old time reputation of school lunch. I’ve had parents call me and I said have you actually seen our menu or gone to a school and seen it? I tell them to stop by and visit. They don’t even give us a chance.”* A teacher agreed, but did not think the school meal was adequate. She said, *“Lots of parents don’t know what their kids are eating. In a school like our school, not as many parents are in the building during lunch time. If it says taco, they’re thinking taco, but if you walk through the line, it’s Doritos in a bag and a scoop of meat.”*



## Child and Adult Care Food Program (CACFP)

CACFP is similar to the NSLP program in that it provides federal reimbursement for meals provided at child care centers, family or group day care providers, and after school programs. With CACFP, care providers buy and serve meals or snacks to all children and receive reimbursement. The amount of reimbursement depends on the type of care provider and the number of children income eligible for free or reduced meals. Child care centers receive reimbursements equivalent to the NSLP program whereas family and group day care providers receive different rates dependent on whether they are Tier I or Tier II providers. All family child care providers qualify by default for Tier II rates, but to qualify for Tier I rates, the provider must meet one of the following qualifications:

- Have a household income below 185% of poverty
- Live near a school where the average income is below 185% of poverty
- Live in a rural area where the census block has an average income below 185% of poverty

After school programs run by non-profit organizations are more limited in whether they can participate in CACFP in that they must be located at sites where at least 50 percent of the children in the area are eligible for free and reduced priced meals. These sites can be reimbursed for one snack per child per day, but must follow all CACFP meal guidelines. For areas that do not meet the 50% criteria, school-based after-school programs can get reimbursement for snacks through the NSLP.

### **Provider Participation**

In Tompkins County, fewer than half of eligible care providers participate in CACFP. Only 13 of 21 child care centers (including Head Start); 16 of 29 group family day care providers; 10 of 22 family day care providers and; 7 of 17 after school providers participate in CACFP. Legally exempt caregivers (unlicensed, informal child care provider who are subsidized through the Department of Social Services) are also eligible to receive CACFP reimbursements, but rarely participate in the program. The lack of participation by all types of care providers represents a loss of federal dollars that could be beneficial to the county and improve children's access to healthy meals.

Five schools in Tompkins County meet the eligibility criteria to get reimbursement from CACFP for after-school programs, but are not currently participating (Table 48.)

Table 48. Schools Eligible to Participate in CACFP After-School Program

	<i>Percent Eligible for Free or Reduced Lunch</i>
Dryden Elementary	52%
Dryden Middle	50%
Freeville Elementary	62%
Newfield Elementary	61%
Enfield Elementary	73%



### **Meals Served**

In 2016, nearly a million breakfast, lunches, and suppers were served by care providers who participate in CACFP (Table 49.) Of these, over 266,000 were reimbursed by CACFP (Table 50.) In addition to meals, 238,227 snacks were served by care providers. Of these, 154,560 were reimbursed by CACFP.

Table 49. All Meals Served by Providers Participating in CACFP by Type of Provider

<i>Type of Provider</i>	<i>Breakfast</i>	<i>Lunch</i>	<i>Snack</i>	<i>Supper</i>
At-Risk Day Care Center	0	0	17,303	8,025
Child Care Center	68,819	76,901	63,911	0
Head Start	31,144	32,270	29,635	0
Out of School Hours Care	0		25,590	13,582
Day Care Homes	87,458	708,871	101,788	9,981
<b>Total</b>	<b>187,421</b>	<b>708,871</b>	<b>238,227</b>	<b>31,588</b>

Table 50. Number of CACFP Reimbursed Meals by Eligibility Type and Provider Type

	<i>Free</i>	<i>Reduced</i>
<b>Breakfast – Total</b>	<b>120,665</b>	<b>4,234</b>
Child care centers	19,852	4,102
Head Start	31,114	0
Day care homes	69,699	132
<b>Lunch - Total</b>	<b>117,942</b>	<b>4,693</b>
Child care centers	22,381	4,561
Head Start	32,270	0
Day care homes	63,291	132
<b>Supper – Total</b>	<b>18,006</b>	<b>787</b>
At risk care	8,025	0
Out of school hours care	0	787
Day care homes	9,981	0
<b>Snacks – Total</b>	<b>149,194</b>	<b>5,366</b>
At risk care	17,303	0
Child care centers	16,034	3,607
Head Start	29,635	0
Out of school hours care	3,538	1,631
Day care homes	82,684	128

Parents of younger than school-age children were asked to describe the meal program their care provider offers. The sample size of parents with small children who responded to the survey is too small (N=17) to make a comprehensive analysis possible. However, parents responding to the survey, for the most part, indicated that the food provided by their child care center tasted good and was healthy.

There are significant advantages to having meals provided in the day care environment. One stakeholder said, “As part of the regulations, we have teachers engage and eat with (the children) family style. That’s really nice. I think the lunch time meal is nice in particular in Pre-K. There are lots of great conversations in class. With toddlers, they are being served the meal, rather than served family style. They’re focusing a lot in teaching independence and feeding themselves. We are supporting good habits and trying everything. One of the things we’ve periodically hear that the child eats one thing at child care, but won’t eat it at home. It’s neat to make it part of camaraderie – being part of group.” Another stakeholder mentioned, “I think it’s a huge relief to families to not have to pack lunch, breakfast, and snacks. That’s

*really helpful. And they know they're going to be fed." She continued, "We're able to give good food to a lot of kids. We do different food groups and try different types and textures for them to experience."*

CACFP brings in several hundred thousand dollars of funding to Tompkins County and allows a large number of children to eat. And it's a universal program so for programs that participate, all children are fed for free. A provider simply described the advantages of CACFP as *"there's a large number of kids that are able to eat."*

### **Key Barriers**

Stakeholders noted several barriers to participating in CACFP. Information from program providers indicates that the reimbursement is very low. One child care center director said, *"The biggest challenge is trying to have high quality nutritional foods within the budget we have."* Another provider said, *"The reimbursement doesn't cover the costs."* Another stakeholder said, *"CACFP only pays for 15% of staff cost. To have anybody to be able to cook healthy food on a consistent basis, you need quality chefs. Paying for staff ends up becoming an issue. I have to find that money from somewhere. I would say the most challenging thing is staff resources and the money to pay quality chefs. You can't do the food without the people to cook it."*

In addition to low reimbursement, stakeholders said the requirements to participate are relatively demanding. The program involves a substantial record keeping and menu planning to ensure compliance with CACFP's guidelines. In addition, care providers that provide meals, but don't participate in CACFP, can claim the food expense as a deduction on their taxes. If they participate in CACFP, they can only claim the portion of food costs that is not reimbursed which further increases their record keeping burden.

Stakeholders also noted that CACFP regulations resulted in a great deal of food being wasted. One provider said, *"There is a lot of waste which is troublesome for me. We have to provide at least second helpings for children and you have to provide certain components. Milk is the biggest thing that we waste. You have to show on your receipts and food production records that you bought and made enough for second helpings for all of the children. The reality is that they don't all take it. We can't then re-serve that tomorrow and show that we provided enough. We see that even more in the summer. There are kids that pack their lunch, but we have to be able to offer it to them too. We try to do as much fresh fruit, vegetables and real cheese, but the waste is alarming. We're actually throwing away more food than we should. I did bring that up at a directors group. Their solution is that we could donate it. It's a good solution to the waste, but there's an expense. In child care, we're not making money hand over fist."* Another provider said there should be more effort to utilize food wasted in both the NSLP and CACFP programs. He said, *"I think one of the things to look at is food waste. After lunch is served, all the food needs to be thrown away because of bacteria. The school doesn't want to be liable for kids getting sick for food that got too cold. If you have a lunch that kids weren't feeling that day, you might have a lot of food that gets tossed. If it was up to me, we'd be re-using that food for our program. Is there a better way to heat the food, store the food, so it doesn't have to go to waste and it can be repurposed? I know if I could use that food consistently, it would cut my bill in half during the summer. Or if there was a way for Loaves and Fishes, Red Cross, or other programs to come in and get the food or somehow recycle that food. Sometimes we're not talking about a 1/16 of a pan of mac & cheese, we could be talking about*

*The Greater Ithaca Activities Center (GIAC) has effectively utilized CACFP to provide meals to children at risk for food insecurity in Ithaca. In addition to the snack provided at after school programming, GIAC provides an evening meal for participants. The dinner program "50 Served" developed to meet a need in the community and now 60-70% of children participating in the after school program have access to a hot dinner five days a week.*

*whole pan or half a pan. Or I think to myself, there are 45 turkey and cheese sandwiches and a whole tray of pizza I have to throw in the garbage. I understand the liability issues, but that's food that could go somewhere. If I dropped it off at the Friendship Center – or at Loaves and Fishes – it would be gone. Or if I could cut (the leftover pizza) up and make little breadsticks to go along with spaghetti or meatloaf, the kids would love it. Or I could just give them pizza again and they would love it.”*

Stakeholders also said that parental expectations may prevent some child care providers from serving meals and participating in CACFP. One stakeholder suggested that *“some providers don’t want to deal with parents’ preferences.”* Another stakeholder said, *“Periodically we’ll have families that want all organic. CACFP has changed to whole-grain, but all organic is more expensive than we can bear without raising tuition. What we’ve done is encourage parents to investigate it. They realize the expense is too high and don’t want tuition to go up.”*

## Summer Food Service Program (SFSP)

The SFSP provides free meals to children in low-income areas during the summer months. Meal sites are either open, enrolled or camp sites. Open sites operate in low-income areas where at least half of the children come from families with incomes at or below 185 percent of the Federal poverty level, making them eligible for free and reduced-price school meals. Meals are served free to any child at an open site. Enrolled sites provide free meals to children enrolled in an activity program at the site where at least half of them are eligible for free and reduced-price meals. Camps receive payments only for the meals served to children who are eligible for free and reduced-price meals.

### **Participation**

In Tompkins County, six open sites operated during the summer of 2017 with two sites in Dryden, one site in Groton, two sites in Ithaca, and one site in Newfield. In addition, meals were served at 14 summer recreation programs. A total of 40,872 meals (including snacks) were provided to Tompkins County children through the SFSP (Table 51.)

Participation rates in NYS in summer meals is relatively low compared to the number of children likely in need. Assuming the number of food insecure children is 3,020 as per the Feeding America estimates, SFSP is serving less than a third of the number of children who may need support. Summer meals are reaching less than a quarter of the children enrolled in NSLP (N=4,278.)

Table 51. Number of Meals and Average Daily Participation in SFP by Meal Type

	<i>Number of Meals</i>	<i>ADP</i>
Breakfast	15,196	537
Lunch	24,040	841
Snacks	1,636	72

## Non-Profits

Several non-profit organizations provide food resources to children and families in Tompkins County to varying degrees and effect.

### **Fresh Snack Program**

The Fresh Snack Program, a program of the Youth Farm Project, provides a fresh fruit and vegetable snack two or three times per week to students at five of the eight ICSD elementary schools. The snack is locally sourced from area farmers and processed at an Ithaca based food processing business. The program emphasizes providing organic produce as often as possible.

### ***Enrollment***

The Fresh Snack Program distributes to approximately 61% of the elementary students in ICSD and 28% of elementary students in the county.

Table 52. Student Enrollment of Elementary Schools in ICSD<sup>59</sup>

	<i>Number of students</i>	<i>Number of students served</i>
Belle Sherman	349	349
Beverly J Martin	281	281
Caroline	264	264
Cayuga Heights	351	351
Enfield	198	198
Fall Creek	218	
Northeast	386	
South Hill	322	
<i>Total</i>	2,369	1,443

### ***Participation***

Nearly three-quarters of students who attend schools that participate in the Fresh Snack Program said they eat the snack always or most of the time it's offered. Half of parents said their child eats the snack always or most of the time.

Table 53. Parent and Student Assessment of Frequency of Consumption of Fresh Snack

	<i>Parents</i>	<i>Students</i>
Always/Every time it's offered	33.0%	41.2%
Most of the time/once a week	17.6%	32.0%
Some of the time/1 or 2 times per month	4.4%	19.6%
Never	0.0%	7.2%
Don't know	44.0%	

### ***Taste and Nutritional Quality of Food***

Of the students and parents that offered an opinion, nearly all gave a "thumbs up" for how the snack tastes and how healthy it is (Figure 18 and Figure 19.) Qualitative feedback from elementary students indicates a desire for more variety, having the Fresh Snack more often, and providing a larger portion size. Several students had specific suggestions on which fruits and vegetables they would like to see

<sup>59</sup> 2015-2016 NYSED Enrollment Data Retrieved from: <https://data.nysed.gov>

more often. Two students suggested that the program should ask students directly through a survey which fruits and vegetables they would like.

Overall, parents were happy with the program. One parent said, *“I think the fresh snack program is a wonderful thing not only by providing great food in schools but also because of the community supported agriculture.”* One parent noted that while the program is positive, it requires buy-in from school staff. She said, *“I think the Fresh Snack program is a wonderful program because children/teachers can be wonderful influences on one another and can help children try something new. I do believe that if the teacher is not behind the Fresh Snack program there is tons of waste...because children don't eat it.”* Several parents suggested expanding the program. One parent said they would like the Fresh Snack program expanded, *“to every elementary school, pre-school, and daycare program for everyday of the week.”*

Figure 18. How Fresh Snack Tastes

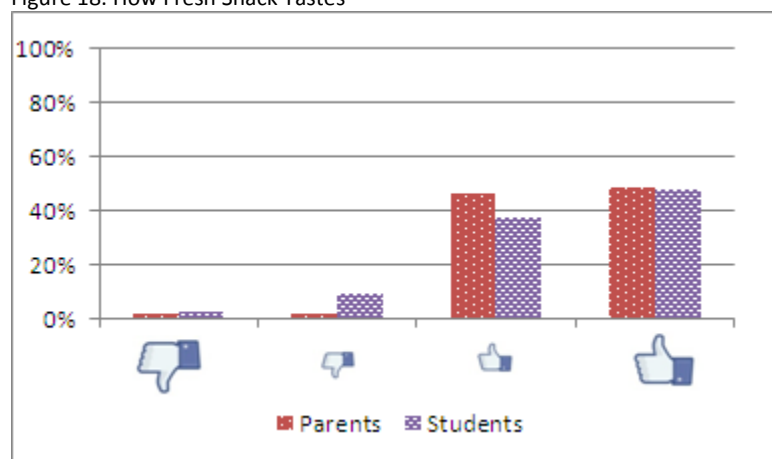
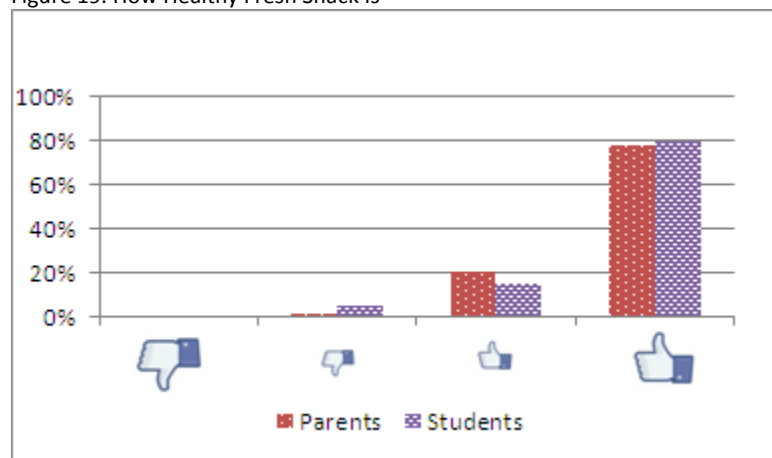


Figure 19. How Healthy Fresh Snack Is



### **Program Impact**

Several school stakeholders noted that they appreciated having the Fresh Snack Program in their school. One principal said the program *“was phenomenal. It allows students to try different foods and get exposure. I think it works extremely well.”* Another school stakeholder said the program *“lets kids try something different.”* Another school stakeholder said, *“I think it’s great. I wasn’t sure if kids would jump right in or what the response would be, but the kids loved it. It was something different that was happening. And different classes did it in different ways. Some teachers gave everything to everyone while others would let kids choose. The kids were eating it and trying new things they’d never tried before. There was also a shift at one point. We have a snack in our office if kids don’t bring one or can’t afford it. That shifted on healthy snack days so that the fresh snack was the first thing kids have. And it may be the only fruit or vegetable they are having in a day.”*

### **Quantity of Food Distributed**

The program provides a half cup of one or two types of produce (equivalent to one serving) to students served by the program. Based on enrollment, the Fresh Snack Program distributes an estimated 114,000 servings of fresh produce per year to area children. Assuming that eight servings equal a meal on a vegetarian diet, the Fresh Snack Program distributes the equivalent of 14,250 meals per year to Tompkins County students.

Table 54. Estimated Number of Fresh Snack Servings per Year

	<i>Number of students</i>	<i>Number of students served</i>	<i>Estimated number of servings</i>
Belle Sherman	349	349	25,128
Beverly J Martin	281	281	30,348
Caroline	264	264	19,008
Cayuga Heights	351	351	25,272
Enfield	198	198	14,256
Fall Creek	218		
Northeast	386		
South Hill	322		
<i>Total</i>	2369	1,443	114,012

### **Key Barriers**

Some school stakeholders noted that there were some challenges with the program. One stakeholder said the limited resources of the program prevent the program from being available at all schools and create equity issues. Other stakeholders said that decreasing the number of days students at BJM received snack was a detriment. One teacher said, *“I feel we were doing a better job when we were doing 5 days.”* Another community stakeholder noted a concern that the program is not sustainable and the costs keep increasing. The stakeholder said the focus should be on providing access to all children and not necessarily on requiring the snack to be local and organic.

The Fresh Snack Program likely does not have a significant impact on food security due to the small portion size and frequency of availability. Over half of parents said they believed that their child was still hungry after eating the Fresh Snack, whereas about a quarter of students said the same. One parent said, *“The Fresh snack is a great thing. However, for many food insecure students, this is not enough and there is barely enough for a taste.”* Information from focus groups with elementary students suggested that the students see the program as both an opportunity to try new fruits and get healthy food in their diet. They did not think that the program was necessarily effective at satisfying their hunger. They noted

that if they were able to have a second portion the Fresh Snack was a sufficient snack size helping. A school stakeholder said, *“I think it is more of a taste. There were some things that it seemed like you got a little more, but other times it was an orange quarter and a slice of a carrot. I think for some kids it was enough, but only those who also brought a snack from home. If it was their only snack, it’s not enough.”*

Table 55. Parent and Child Perceptions of Fresh Snack Program

	Parents	Students
My (child’s) friends don’t eat the Fresh Snack	60.8%	3.6%
It’s embarrassing to eat the Fresh Snack	7.0%	4.5%
My parents don’t want me to eat the Fresh Snack	5.0%	3.6%
I’m/my child is still hungry after eating the Fresh Snack	54.7%	25.9%
I wish they had Fresh Snack more often	94.8%	38.4%

All parents and elementary students were asked whether they brought snack from home. The vast majority of parents indicated they provided snacks for their children while about half of students said they brought it. The difference may be explained by different classroom policies about snacks. Some classrooms have parents provide snacks for the entire class on a periodic basis and don’t simply send a snack with their child every day. One parent said, *“I would pay for fresh snacks, if that meant I did not have to send in snack. I would even consider paying slightly above cost to help make snacks available for those who need.”*

	Parents	Students
Brings a snack from home	83.2%	49.1%

### **Food Bank of the Southern Tier**

The Food Bank of the Southern Tier is a vital non-profit organization fighting food insecurity in Tompkins County. Through their support of area food pantries and their operation of their Mobile Food Pantry and Backpack Program, FBST provides nearly a million pounds of food per year to families in need.

### **Food Pantry Network**

Tompkins County is home to several food pantries that provide emergency food assistance to families. Food pantries are self-supporting organizations that typically receive food from the Food Bank of the Southern Tier (FBST), Friendship Donations Network (FDN), and directly from stores and farms either through donations or purchase.

### **Participation**

FBST requires agency pantries to track the number of children, adults and seniors that receive food from their pantry. In addition, FBST provides food directly to families through their Mobile Food Pantry (MFP) Program. Distribution data from FBST show that agency pantries served an average of 3 days of meals a month to nearly 2,000 children monthly during 2016. In addition, over 300 children were served an average of 3 days of meals a month by the MFP Program. The number of children served does not necessarily imply individual children as families may access more than one food pantry and MFP per month. In an evaluation of FBST’s Mobile Food Pantry, over half of survey respondents said they also attend at least one agency-based food pantry.



Table 56. Children in Tompkins County Served by FBST Pantries and MFPs

	<i>Children in Households with Incomes below Poverty</i>	<i>Children Served by Agency Pantries Monthly</i>	<i>Children Served by MFPs Monthly</i>
Tompkins County	2,654	1,964	318
ICSD	1,122	1,475	80
Dryden	365	164	69
Groton	194	59	70
Lansing	352	72	56
Newfield	421	95	42
Trumansburg	191	100	-

*Quantity of Food Distributed*

In 2016, FBST agency pantries distributed 844,686 pounds of food. A general rule of thumb used by food banks is that 1.2 pounds of food equals one meal. Using this estimate, Tompkins County based FBST pantries distributed over 700,000 meals (212,085 to children) in 2016.

Table 57. Pounds of Food and Meals Distributed in Tompkins County by FBST Pantries

	<i>Total Pounds of Food Distributed</i>	<i>Total Meals Distributed</i>
Tompkins County	844,686	703,905
ICSD	661,604	551,337
Dryden	38,780	32,317
Groton	33,225	27,687
Lansing	25,687	21,406
Newfield	41,480	34,567
Trumansburg	43,911	36,593

*Quality of Food Distributed*

In addition to demographic data, FBST tracks the amount of nutritious pounds and the pounds of produce distributed by pantry agencies. Eighty-six percent of all the food distributed in 2016 through Tompkins County pantries was identified as “nutritious.” FBST has placed a priority on increasing the amount of produce distributed by agency pantries and has met with significant success in Tompkins County. In 2015, over 71,000 pounds of produce were distributed through Tompkins County food pantries. This increased to 132,000 pounds in 2016. In addition, FBST distributed nearly 78,000 pounds of produce through their MFP program.<sup>60</sup>

There are significant discrepancies in the amount of produce distributed by geography. In particular the food pantries in Dryden, Groton and Lansing distribute significantly less produce as a percent of total pounds than pantries in other school districts in the county. The Newfield pantry nearly doubled the amount of produce they distributed, the Trumansburg pantry nearly tripled their produce distribution and pantries serving the ICSD region increased produce distribution by almost 85% between 2015 and 2016.

<sup>60</sup> Total does not include produce distributed through MFPs serving senior housing sites.

Table 58. Distribution of Produce by FBST Pantries in Tompkins County by Year

	2015		2016	
	<i>Pounds of Produce Distributed</i>	<i>Produce as a Percent of Total Pounds</i>	<i>Pounds of Produce Distributed</i>	<i>Produce as a Percent of Total Pounds</i>
Tompkins County	71,491	10.0%	132,047	15.6%
ICSD	61,458	11.5%	117,813	17.8%
Dryden	1,413	3.7%	1,672	4.3%
Groton	2,845	8.4%	1,802	5.4%
Lansing	1,415	4.9%	1,574	6.1%
Newfield	2,646	6.7%	4,714	11.4%
Trumansburg	1,714	4.4%	4,472	10.2%

### *Key Barriers*

An evaluation of FBST's agency network found that the key barriers related to the distribution of food through food pantries include a wide range of attitudes and philosophies by pantry directors which impacts the types and amount of foods distributed, the days and hours the pantry is open, the frequency clients can access the pantry and the availability of client-centered services.

### **BackPack Program**

The Food Bank of the Southern Tier also provides packs of food for the weekend to children at risk for food insecurity through its BackPack Program. FBST partners with schools and districts to distribute the packs to children on Friday to take home for the weekend.

### *Participation*

The BackPack program is very popular among stakeholders and participants, but the reach of the BackPack Program is relatively limited. In the 2015-2016 school year, Tompkins County schools distributed 292 packs per week. FBST allocated 340 to the county, but the Dryden, Lansing, Newfield and Trumansburg districts requested fewer packs than offered.

### *Quantity of Food Distributed*

FBST aims to provide enough food for six meals over the weekend by giving two proteins, two grains, two dairy, and two fruits or vegetables in each pack. In 2016, the BackPack Program distributed approximately 63,000 meals to Tompkins County students.

### *Key Barriers*

A recent evaluation of FBST's BackPack Program found that the complexity of the production process, the small amount of food in the packs, and the time and dollar costs are fundamental limitations and that the overall effectiveness and efficiency of the model is constrained by the size and weight of the pack.

### **Friendship Donation Network (FDN)**

FDN distributes fresh food to area families through many of the same pantries FBST serves and some additional sites. Unfortunately FDN does not track the number of people or children served or the amount of food distributed. They claim to distribute 500,000 pounds of fresh food each year estimating that they supply 829 people with a year of fruits/vegetables<sup>61</sup>.

<sup>61</sup> Retrieved from: <https://friendshipdonations.org/what-we-do/>

### **Healthy Food for All**

CCE-Tompkins' Healthy Food for All (HFFA) program makes it possible for households with limited resources to take part in Community Supported Agriculture (CSA). To participate in HFFA, households must meet an income eligibility requirement. From June through November, members receive a weekly "solidarity share" of the local harvest for half of its regular cost (or about \$250) from one of the participating farms in the Tompkins Area CSA Coalition. Farmers receive a subsidy from HFFA to cover the remaining cost of the share, from funds that HFFA raises through grants, donations, and events. HFFA provides 150 summer CSA shares and 30 winter CSA shares per year.

### *Best Practices – Food Waste*

*The Los Angeles Unified School District Board of Education passed a resolution in 2011 to make excess or unused food from the food services department accessible to non-profit organizations. The district requires all participating non-profits to enter into agreements regarding transportation, distribution, use and consumption of the food items which eliminates liability for the district and schools. The policy allowed non-profits to access food that had not been served to students and redirect it to individuals and families in need. This past fall, the California legislature passed a bill which allows additional foods to be donated. The bill permits schools to donate foods such as milk, unopened pre-packaged foods, and uncut produce. This allows food that was formerly placed on share tables and then thrown out if no child picked it up to be saved and served to needy individuals and families in the community while eliminating literally tons of waste.*

The effect of nutrition education on children has been widely researched and has consistently found that well-designed nutrition education programs can lead to healthier food choices among children. For example, a study conducted by the Food and Nutrition Service of the USDA found nutrition education provided to low-income elementary students increased fruit and vegetable consumption.<sup>62</sup> Another study found that intensive school-based nutrition education programs reduced BMI of obese adolescent girls as well as changed attitudes on healthy eating behaviors.<sup>63</sup> These, and other studies, confirm that nutrition education is critical to improving child nutrition. Schools and non-profits have engaged several efforts to provide nutrition education to children including offering nutrition information through health curricula and case study approaches, exposing children to brief marketing messages and taste tests, and through projects integrating gardening, cooking, studying, and eating. Despite the number of organizations providing nutrition education opportunities, there is very little assurance that every child receives equal and effective exposure. The majority of nutrition education programming is class, school or program based and comparable experiences are not available to all children.

### School-Based

For the most part, school-based nutrition education in Tompkins County is scatter shot in nature. Interviews with school administrators and teachers across the county revealed that the majority of children in the county are exposed to very little nutrition education information and that there are limited efforts to teach children about healthy food choices. For the most part, nutrition education is not required nor is it available to all children equally. Nearly all school stakeholders interviewed noted that nutrition education is often only a brief element of students' health classes. One principal noted, *"We have health standards that are banded for grades K-1, 2-3, 4-5 and within those from what I recall there's some about nutrition. I don't know how much people are teaching about nutrition. There are definitely mini-units. It used to be the food pyramid, now it's the balanced plate, but whether they are sustained and whether kids understand and apply the knowledge, I don't know."* Another school stakeholder said, *"We don't actually have a health curriculum throughout the district. The elementary schools have developed their own, the middle and high schools less so. They do have health classes they are required to take."*

Interviews with teachers and administrators in ICSD suggested that the majority of nutrition and health information available to students is integrated through a case study approach. The case study approach offers teachers the opportunity to focus on a specific topic and use a cross-disciplinary approach to engage students. Overall, teachers and administrators are pleased with the case-study approach and noted successful efforts to engage students in gardening and cooking. Parents also

*Through the efforts of a special education teacher and librarian, the Trumansburg school district has an active student "Localvore Club." Started in 2015, the club creates a weekly lunch for staff members using locally sourced ingredients.*

*In 2016, the duo wrote a proposal to try to get funding for a greenhouse for the program. A Cornell professor donated a hoop house, grant money came through to cover it, and additional funding was crowd-sourced to add additional financial support. Through donations of compost, flower and vegetable starts, and volunteers, the students in the Localvore Club have the place to grow their own produce to integrate into the meals they sell to teachers and staff. The club integrates all academic subject areas (e.g. reading, math, science) into their gardening efforts. The hoop house is also being integrated into several other projects including STEM activities as well as offering produce to the food services department. The program leaders have visions of creating a "mini ag-program", developing a kids' farmers' market, and adding an additional hoop house to serve the cafeteria.*

<sup>62</sup> Supplemental Nutrition Assistance Program Education and Evaluation Study (Wave II), Altarum Institute, FNS, USDA, December 2013.

<sup>63</sup> The Effectiveness of School-Based Nutrition Education Program among Obese Adolescents: A Randomized Controlled Study, Supinya In-Iw, Tridsanun Saetae, and Boonying Manaboriboon\* Int J Pediatr. 2012.

appreciate the nutrition oriented case studies. One parent said, *“With the school garden case studies, the children were so excited seeing the whole process the whole way through and talking about nutrition as part of lesson. My daughter came home and said we need to have garden. It gave my husband and my daughter a push to do raised beds. She felt very strongly. In the classroom, the kids really like it. It was neat for them to have the salad party at the end of the gardening. They harvested all the lettuce and I think maybe the radishes were ready. They harvested, prepared, and ate it. Everybody in class was eating. I think that made them enjoy it even more.”*

*ICSD Farm to Table Program*  
ICSD was awarded a 3-year federal grant to support a Summer Farm to Table Program targeting 135 low-income 2<sup>nd</sup> and 3<sup>rd</sup> grade students and their families. The program is early in implementation and there is no evaluation data available as yet.

Despite the excitement and success of the case study approach, it is clear that only a portion of ICSD students are engaged with nutrition-based case studies which dramatically limits the overall impact of the programming. In addition, some teachers noted some micro-barriers that made it a challenge to successfully implement their case studies. One school stakeholder said, *“We needed a cooking/nutrition kit. Things like safe knives, a crockpot, a blender so we could use the things from the garden. We got denied because it didn’t fit the engineering model they were looking for. A lot of times, anything that’s done in the classroom is pretty much teacher driven, teacher based, teacher funded unless you apply for special grant. Last week, we made tomato sauce from the garden and the teacher brought everything in, the olive oil, the crockpot, the blender and we borrowed knives. Individual districts are doing wonderful things with nothing provided.”* Another teacher noted, *“There are many moments when I feel really frustrated by time constraints. We don’t have a lot of time to meet and plan as a team. It’s very frequent in our school that teachers are dealing with behavior issues and it shortens the amount of time that we have for really good creative planning. We get very little relief time for things like that.”*

Several schools have school gardens that are integrated into some children’s education. Interviews with stakeholders indicate that gardens are not always well integrated into curricula and are a challenge to sustain effectively.

### **Cornell Cooperative Extension-Tompkins**

CCE-Tompkins has a long history of providing nutrition education to adults and youth in Tompkins County. On average, CCE-Tompkins enrolls 115 adults and 50 youth in a 6-8 session EFNEP (Expanded Food & Nutrition Education Program) workshop series each year. In addition, in collaboration with the regional SNAP-Ed program (Finger Lakes Eat Smart New York), CCE-Tompkins’ work includes both series and one-time lessons, social marketing and environmental interventions with schools and gardens. During the first quarter of 2017, FLESNY conducted 194 educational nutrition events reaching 3,291 adult and youth contacts. Several years ago, CCE experienced severe budget cuts in nutrition education resulting in staff cuts and new limitations on where they could work.

### **Fresh Snack Program**

The Fresh Snack Program offers some nutrition information to schools in conjunction with the produce they provide. Schools have the responsibility to share the information with students and the implementation varies between schools. Some schools have students read the information during announcements while others send the information to the classroom for teachers to share. In addition, FSP has conducted 20 minute lessons in the classroom making nori wraps and learning about “rainbow” eating. FSP conducted these lessons in 25 classrooms during the spring of 2017.

It is clear that the Fresh Snack Program's primary impact is providing students the opportunity to be regularly exposed to healthy fruits and vegetables that they may not otherwise have. The current level of nutrition education provided by the program is not robust enough to have much impact on its own, but it may contribute to the cumulative effect of other programs students' experience.

### **Food Studies Institute**

The Food Studies Institute in Trumansburg has a cross-curricular program which engages children around food through the integration of art, geography, history, language arts, mathematics, science, writing and physical education. The lessons are participatory with students using all five senses to study whole foods, cook, create art, plant seeds, and write in journals. In addition, students prepare and consume food. The program has been implemented in the Cayuga Heights, Enfield, and Trumansburg elementary schools. Stakeholder interviews indicate that the curriculum created and conducted by the Food Studies Institutes is effective; however, the program is only implemented when funding has been made available through one-time grants. In order for the curriculum to be comprehensively integrated into schools and classrooms, long-term funding and staff committed either by the county, school districts or some other non-profit organization.

### **Youth Farm Project**

The Youth Farm Project provides opportunities for ICSD students to go on field trips to their farm. While on the farm, students harvest and make fresh snack together while learning about nutrition. The field trips are popular among ICSD teachers and students, however, the farm only hosts field trips on Wednesday and Friday for five weeks in the fall which limits the number of children able to take advantage of the opportunity.

### **Cool School Food**

The Cool School Food program from the New York Coalition for Healthy School Food has the goal of integrating plant-based, made from scratch recipes into school cafeterias. The program developed four plant-based recipes for ICSD to add to their monthly menu. One of the Cool School Food recipes is offered as an option once a week to students as part of the school lunch. Some stakeholders commented on the recipes as being a benefit to the school lunch program particularly because they offer diversity to the menu. One stakeholder said, "There is an outside group that has come in and given some menu items that are international in flavor and specifically targeting plant based proteins that have been fairly successful because of that." Another school-based stakeholder said, "The Cool School Food items offer a lot of ethnic entrees now." Another said, "We work in a partnership with Healthy School Foods to provide plant based entrees. Ithaca is different – the diversity is so big, we try to connect with everybody."

While some stakeholders mentioned the Cool School Food options as a successful aspect of ICSD's food service program, actual uptake of the food is relatively low. As one stakeholder said, "I know they have come up with options that are vegetarian and that are healthy like the Cool School Food, but we don't tend to sell a ton of those." An evaluation of the program from 2015 found that only 5% of students buying school lunch chose the Cool School Food entrée. Information from students, parents, and

*Newfield received a grant to become a CATCH (Coordinated Approach to Child Health) school. The CATCH program is a school-based health program designed to promote physical activity and healthy food choices. The program integrates visual messages, healthy morning announcements, healthy food on the cafeteria line, reinforcing positive behavior, and encouraging physical activity. The program provides nutrition education in the classroom in conjunction with Newfield's thriving school garden. The students go out and plan, plant, maintain and harvest the garden. The produce is put on the cafeteria's salad bar and students develop and taste test recipes to go on the school menu. The program is in its second year and continues to try to generate buy-in from school staff.*



program observations indicate that uptake of the entrées have not increased substantially since then. The 2015 evaluation and conversations with stakeholders indicate the lack of marketing and the unhealthy alternatives available may suppress the number of children choosing the Cool School Food option. One teacher noted, *“It seems like they came up with two new dishes and nothing happened. There’s nothing really going on to really engage with that. For a year, they were doing this thing where people would come in have them taste the food and fill out a survey. It would be kind of neat if they were trying to get the kids more involved in it. It was nice when they had some incentives for trying things. It doesn’t seem like there’s really much going on with that anymore.”* Program staff suggested that increased funding to conduct additional taste tests and develop more recipes would advance the uptake of the meals. However, evidence from previous taste-test efforts do not suggest this to be the case and the cost of developing recipes is questionable given the wide availability of recipes that have been developed specifically for this purpose. The USDA, as well as many other sources, offers recipes that have been field-tested for food services to integrate into menus.

### *Best Practices Model – Nutrition Education*

*Common Threads Farm, a not-for-profit organization in Washington State brings Food Educators into 19 partner schools to garden, cook, and eat with over 4,000 children. By leveraging 9 full-time AmeriCorps members with their 4 full-time staff plus volunteers, Common Threads offers: bi-weekly garden classes aligned with NGSS (Next Generation Science Standards) for each child in each grade at partner schools during the Fall & Spring; 4 classroom cooking sessions for each classroom during Winter months; after-school cooking classes at Title 1 schools; summer time gardening support (engaging families in tending school gardens so that kids return to robust gardens in the Fall); and family focused cooking and eating events at Title 1 schools. In addition, with their Mobile Cooking Carts, each Food Educator has access to materials for food tasting and preparation activities, and can come prepared to cook with a classroom of up to 30 students.*

*Common Threads requires participating schools to have some “skin” in the game to ensure ownership and engagement. The teacher’s role in gardening or cooking is ideally hands-on, working side-by-side with the Food Educator. In addition, each school must have a food education committee which is responsible for: advocating for the garden as a learning resource; building community support by recruiting volunteers and committee members, and sharing news of the garden via school newsletter, Facebook page and website; budgeting and fundraising to cover the annual membership fee to Common Threads as well as material needs of the garden; creating and overseeing a garden care timeline (with leadership and support from a Common Threads Food Educator); and meets at least quarterly to plan work parties and schedule summer garden care.*

*According to the Common Threads 2016 annual report, the program costs just over \$217,000 per year to operate. The revenue to support the funding comes primarily from program fees and grant funding. The use of the AmeriCorps members is critical in providing substantial nutrition education offerings for a relatively low cost.*

### *Best Practices Model – Nutrition Education*

*The Agatston Urban Nutrition Initiative (AUNI) at the University of Pennsylvania has a team of nutrition educators who partner with teachers and school staff to deliver food education programs and activities through their School Food Education Program and their Youth Empowerment Program. These programs stress the importance of where food comes from, growing food, good nutrition, food culture, and provides an opportunity for students, staff, and community members to take a leadership role in promoting healthy lifestyles within school environments.*

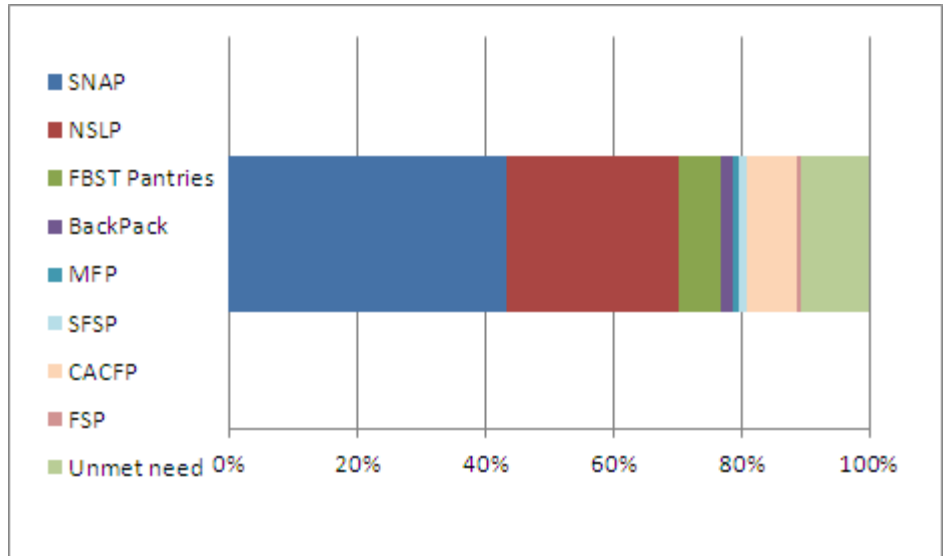
*Through these programs, nutrition educators offers hands-on activities during the school day, after school, and through summer learning opportunities for more than 10,000 students and their families at over 20 schools throughout West and Southwest Philadelphia. The programs consistently introduce children to locally grown, fresh and nutritious food options and incorporate the academic work of Penn students and faculty. Through their signature after-school activities — which include fruit stands, project clubs, cooking clubs and garden clubs — students of all ages develop advanced skills and lead the charge of promoting a positive and healthy school culture. The Youth Empowerment Program provides job training and leadership development for select high school students, particularly in urban agriculture and peer nutrition education. In addition, nutrition educators offer caregiver engagement events for parents and families during the school day as well as during out of school time hours.*



## Gaps in Food Security

Taking into account the primary resources available to food insecure families with children, there is an estimated unmet need of approximately 343,059 meals or 10.3% of all meals needed, per year.<sup>64</sup>

Source	Meals
SNAP	1,437,624
NSLP	897,873
FBST Pantries	212,085
BackPack	63,072
MFP	34,344
SFSP	38,236
CACFP	266,357
FSP	14,250
Unmet need	343,059



### Socioeconomic Class and Race

When asked where they saw the greatest gaps in child nutrition in the county, many stakeholders noted that socio-economic class, and how class interacts with race and household type, was where the primary disparities occur. One school stakeholder said, *"I think so much of it is socioeconomic. But here in our school, socioeconomics are very much tied to race. It's hard to tease those out."* Another school stakeholder noted, *"We see the greatest gaps with the Korean and Vietnamese families as well as the black and Latino communities. I think it's consistent with our larger community issues."* Census data support these opinions showing that black/African American and Hispanic/Latino families in Tompkins County are disproportionately more likely to have incomes below poverty and thus are more likely to be at risk for food insecurity. In addition, black/African American families are also much more likely to be very low-income as compared to other races. Census data regarding SNAP participation by race and ethnicity show Asian families are less likely to receive SNAP benefits when they are theoretically eligible. It may be an area of interest to determine whether there is a population that is eligible for SNAP benefits, but are not participating, and if outreach efforts could improve participation. If this population is ineligible to receive SNAP benefits due to citizenship status, it may be useful to explore whether there are other options to support their food security.

<sup>64</sup> Assumes 3,020 children in Tompkins County are food insecure

SNAP: 2,904 children receiving benefits at an average of \$125/month. (2,904 children \* \$125/month \* 12 months) / \$3.03/meal = 1,701,563 meals

FBST Pantries: Pantries average 3 days of meals per month = 9 meals \* 23,565 children served yearly = 212,085 meals

BackPack Program: The Backpack Program provides 6 meals per week. 292 packs per week \* 6 meals \* 36 weeks = 63,072 meals

MFP: The MFP Program serves an average of 3 days of meals per month. 318 children per month \* 12 months \* 9 meals = 34,344 meals

SFSP: SFSP provided 40,872 meals during the summer of 2017

CACFP: CACFP provided reimbursement for 83,000 meals during 2016

FSP: The Fresh Snack Program provides 114,000 servings per year. Assuming 8 servings of fruits and vegetables would make a meal, FSP provides 14,250 meals/year

### **Single Mothers**

Families with a single female head of household are much more likely to have incomes below poverty and over 40% of these households can be considered to be at risk for food insecurity. Stakeholders noted that single-parent families were particularly challenged with respect to child nutrition. One principal said, *“There are dramatic socioeconomic differences. It doesn’t cost more to eat well, if you’re eating kale or broccoli, you can do that cheaply, but a lot of low income families are single moms and they tend to gravitate toward easy, fast, highly processed meals. And so that’s what they’re used to eating. Our middle class and more affluent families are more mindful. They will spend the time and money to make sure their kids getting well-balanced meals and then their kids are used to eating that way.”* Another school stakeholder said, *“We have a lot of single parent households with mothers working three jobs. A lot of the single parents go to work at 1 pm, the kid goes to afterschool, then to the babysitter, then gets picked up and brought home. I think for them, it’s more about knowing that their kid is fed, rather than what they’re fed.”*

### **Children in Informal Care**

Children receiving child care through the legally exempt providers or other informal providers may have insufficient access to healthy and adequate food. Stakeholders suggest that low-income children who receive subsidies very often have their care provided by other low-income households and thus have limited access to nutritious food options.

### **Independent Youth**

Over a third of the estimated 985 independent youth who are homeless in Tompkins County indicate that they are food insecure. A significant portion of these youth also indicated they either have children in their custody or are currently pregnant.

### **Rural Areas**

Several stakeholders noted that rural populations have disparities in their access to healthy foods. One stakeholder said, *“I think that in general, it seems there aren’t a ton of (grocery) stores outside of downtown Ithaca where people can purchase food and fresh food. And so I think there are always separate issues for the rural population versus the closer to downtown population in terms of access.”*

## Suggestions for Improvement

Stakeholders, parents, and students were all asked to provide their ideas for how child nutrition could be improved in the county. Stakeholders frequently suggested that higher quality and more nutritious options should be available at school meals; that non-profits and schools should have more effective partnerships; that parents should have better connections to information and resources; and that the community should develop a united vision for wellness and child nutrition and cultivate sustainable funding and programming. Parents most frequently suggested that schools provide higher quality and more nutritious options at school meals as well as giving students more opportunities to cook and garden, offering more farm to school opportunities, and increasing the availability of fresh produce. Students were most concerned with improving the taste and appeal of foods available at school lunch, increasing portion sizes and the variety available, and giving them more time to eat.

### Parent Feedback

Respondents to the parent survey most frequently said that they would like the school food service to offer less processed foods, more fresh produce options, and more food made from scratch (Table 59.)

Table 59. Keys to Encouraging Parents to Participate in or Improve Parents' Experiences with School Meals

	Percent Saying Yes
Lower prices	15.8%
More/better nutrition information on the foods served	38.3%
Monthly menu more accessible	21.6%
Easier payment process	9.1%
More fresh produce options	58.8%
More food made from "scratch"	53.4%
Less processed/packaged food	55.5%

### Healthier School Food

Parents frequently mentioned they would like the schools to provide meals that are made from scratch and eliminate highly processed foods. One parent said, *"Fresh meals made with whole foods please!"* Another parent said, *"Freshly made food at schools, using fresh fruits and vegetables, whole grains, etc. Not having processed disgusting food even available at school."* Another parent suggested that the school meals should offer, *"fresh fruit, veggies, whole grains, ideally organic, local food, no sugar (dessert), no soda. Kids do not need sugar and eat way too much of it. If not offered, they will eat the healthy food, have more energy and be better students."* Another parent said, *"It would be great to see healthy cooking happening in schools, old-school style!"* Another parent said, *"Serve fresh, healthy food at school- not chicken nuggets, pizza and hot dogs. That is junk 'food'."* A parent interested in helping said, *"I would LOOOOOVE to see more whole-food (scratch, not packaged, not processed) meals/foods made available. More than anything, I want to see LESS SUGAR and less carbs in general (especially wheat) and more fresh vegetables. I would love to be on a committee for this or otherwise be included in the process."*

### Farm to School, Gardening and Cooking Classes

Several parents suggested offering more farm to school and gardening opportunities to students. One parent said, *"Work with local farms and start a gardening program on the property. Students can learn how to grow their own food and to work as a team to provide for their community."* Another parent suggested, *"Larger classroom garden efforts. Data supports that when kids grow food they are more*

*likely to eat new/novel foods that they grow (e.g. vegetables)."* Another parent said, *"More hands-on cooking experiences for children and their families, more food education programs, more images depicting healthy food in cafeterias around schools (BJM's cafeteria is a wonderful example of this). More free garden education classes, how to grow food in a plot big or small at your house."* Another parent offered, *"Continue the good work of engaging the kids with gardens and farms. A field trip to a farm and a conversation with a farmer always spike my kids' interests in eating fresh fruits and vegetables. Perhaps have a farmer visit the school with a bushel from harvest and have them give a little talk about farming and the fruit/vegetable that they've brought and then have everyone snack together."*

#### **Greater Access to Healthy Options**

Parents also noted a need for better access to healthy options for their family as a whole. One parent suggested, *"Make drop off locations at the schools for farm shares-kids can take them home with recipes, maybe weekly they can learn a new recipe to share with their families."* Another suggested, *"Making resources more accessible to families with no transportation."* Another parent shared, *"Get a meal planning service like Eat Healthy Bro where people can order healthy foods that are already ready and portioned or a meal planning service where all of the ingredients are prepped and delivered for you to make it easier and less time consuming, but these would need to be affordable. Also if the lack of affordable housing and medical insurance were addressed, people might have more money for healthier foods."* Another parent said, *"Make healthy foods more accessible to low income families."* Another mentioned, *"Increase reduced and free lunch guide lines, offer free breakfast and lunch programs over the holidays."*

#### **Student Feedback**

##### ***School Breakfast***

Students reiterated many of the suggestions made by parents and other stakeholders. When asked what they would suggest to improve school breakfast, middle and high school students most frequently recommended making breakfast options healthier. One student said, *"Make it healthy for kids because they are growing and need nutrients to grow at a healthy pace."* Another said, *"If they were healthier and less artificial tasting I would eat them more."* Many students also suggested improving the quality of the food by making it more appetizing and improving the taste. Students suggested offering more freshly cooked options and eliminating processed and reducing sugar-laden foods. One student suggested, *"boosting the number of foods that contain a lot of protein and reducing the number of foods with no substance to them (a lot of simple carbs). Putting more money towards school food so there is a higher quality level that is both more appetizing and healthier for students."* Another student remarked, *"Make them more like real breakfasts and not pre-processed food/ cereal."* A elementary student said, *"Make it so other people would want to eat it."* Another simply said, *"Make real food."*

Several students said they would like more variety in their choices for breakfast. One student said, *"More options instead of the same stuff every week."* Another student said, *"If we had things that weren't just corn dogs and breakfast "sandwiches" (they really are just a bagel and sausage) then maybe more people would be more inclined to buy breakfast. Things like eggs and anything other than sausage would really improve things."* Another suggested, *"Maybe a fruit bar where kids could pick and choose what fresh fruits they would want. Also maybe along with a fruit bar, students can have the option of a yogurt bowl, where they can choose whether or not to put fruit or granola in."* Another student said, *"I think that we could improve school breakfast by serving eggs, vegetables, and toast that have more*

*protein instead of sweet cereals and French toast. You could also serve breakfast for a longer time so that kids get the opportunity to have it for longer, in case they arrive later."*

Several other students echoed the suggestion to increase the amount of time breakfast is offered. One said, *"Make sure kids have enough time to eat breakfast, since I see some kids come to class with breakfast because their bus comes in later."* Another suggested, *"It would be a good idea to let breakfast last into first period as long as it wouldn't be distracting or messy."*

Students also suggested increasing portion sizes. One student said, *"I understand that it's hard to budget for food for thousands of children, but breakfast is the most important meal of the day. One tiny Pillsbury cinnamon thing is not enough to sustain a teenager until lunchtime."* Another said, *"The quantity is always too small to keep me full all day."*

### *School Lunch*

Students' suggestions for improving school lunch mirrored their suggestions for breakfast. They would like school meals to be healthier, be higher quality, taste better and be more appetizing, to have a greater variety of options daily and throughout the week, increased portion sizes, and have more vegetarian and vegan options.

One student said, *"I think that making school lunches more appealing would help a lot (they never really look that good). Also, better tasting and healthier school lunches are something that I would look forward to."* Another said, *"Having things that actually look GOOD. For example, the pizza looks really weird most of the time."*

Students suggested that being more creative with meals and offering more variety would be welcome. One student noted, *"I've been in the lunch line with friends and I've noticed how many times the school lunch is just some form of fast food. I think it would be much healthier if school lunches offered cooked vegetables and something other than hamburgers/sandwiches/something stuffed between two pieces of bread."* One student suggested, *"More variety. Pizza, taco day, and quesadillas are good but what if we had other things besides chicken parm and basic burgers. Things more out of the box may pay off in the end."* Another said, *"It could have more vegetables and a variety of healthy foods (usually it's pizza, chicken nuggets, etc...)"* Another student echoed, *"Maybe add some more creativity into the lunches, and have more healthy options, not just fruit or salad."*

Other students thought the ideas at their schools were good, but the result wasn't successful. One student said, *"The food ideas are great but to be honest it is the execution that ends up being a complete failure. I think maybe using different ingredients would improve the food quality but, I am not a fan of soggy sweet potato fries served with a small hamburger with cheese that doesn't taste good topped with surprisingly quality condiments."* Students also commented on wanting less processed food and more "homemade" food. One student shared, *"More options that are not processed. Something that I would eat at home."* Another student suggested, *"Having more local food. That is not already processed when you get it in the kitchen."* Another said, *"Make it homemade and healthy."* One other student suggested, *"Don't serve frozen reheated food."* Another requested, *"Less packaged cheese."*

Other students suggested incorporating a more substantial salad bar and more vegan and vegetarian options. One student said, *"Adding more daily options such as a salad bar that you can make your own things. I highly request a salad bar."* Another said, *"Have appealing vegetable, not a lot of kids like cooked broccoli or wilted spinach. Have the salad bar full and with vegetables and have one on both*

sides.” Another said, *“Vegan options would be great!!! Sometimes vegetarian really isn’t enough.”* Another expressed, *“You should have more food for vegans and vegetarians.”*

The students that requested more vegan and vegetarian options also requested that these items be clearly labeled. One student said, *“More vegetarian options as well as a sign that says what there is for the day when it comes to dietary concerns.”* Another student said, *“I think you should have what the food is clearly labeled, and what ingredients are in it. Also, I think the lunch staff could be possibly a bit kinder and patient.”*

Several students commented on the small portion sizes and the relative costliness of the lunches. One student said, *“Make the portions a little larger because I almost always end up hungry.”* Another said, *“The lunches are usually pretty small. They are DEFINITELY not worth \$3.00. Also, students with food restrictions often have a very hard time finding food in school.”* Another said, *“Give us more food. Allow for students to get seconds without charging nearly \$6.”* Another said, *“More food or something more filling.”* Students also noted a desire for a more balanced approach. One student said, *“Try to balance meals more. Less carbs.”* Another said, *“At Boynton, they have ice cream bars, cookies, brownies, and sweet drinks that you can get for 1 dollar each. Some kids get 2 or three every day, but maybe we could make a rule that you only get three per week. I really like still having them there. I get ice cream as a treat every Friday.”*

Some students also commented on the lack of variety and substance for snacks in vending machines and otherwise. One student said, *“I think there should be more filling things in the vending machine, not a row of pop tarts, and soda and rows of chips.”* Another said, *“I wish there were cheaper healthier snacks in the vending machines.”* Another said, *“I hate that you can only buy snacks in the vending machine!!! It's so frustrating because my mom puts money on my lunch account and I don't have cash ever and so if I just want like a bag of Cheezits or want water without going in the line it's impossible!!”* Food service directors noted their own challenges with the vending options available to them. One director said, *“It’s really hard to find things that are smart snack compliant. You identify things you want after researching online, but the people who are bidding, don’t bid on it, so you don’t get it. Also I have one vending machine left. They had gotten so old and they had broken it wasn’t worth fixing. And there’s a small variety to work with. That’s the challenge – not everything is always on the bid. And what will really comply with the snacks – what is really in compliance is hard to figure out. The size of bags makes a difference. There are just different things you have to look at constantly to try to find something new that will meet the guidelines.”*

One student reflected that more awareness of the availability of school breakfast would be useful. She said, *“I am very lucky because I am fed very healthy and nutritious food because my parents know how to make it and can provide it financially. Nobody is ever embarrassed about getting school lunch. However, I see very few people having breakfast. When I was in first grade, I didn't know it existed until one of my friends came back to the classroom with her breakfast tray instead of staying in the cafeteria. Maybe you should publicize breakfast more?”*

Other students said that there should be greater access to free and reduced meals. One student noted, *“I believe (as do many of my friends and relatives) that the reduced lunch scale should be a sliding scale. My friend's family missed qualifying for reduced lunch by 17 cents last year. There are lots of families who, although they TECHNICALLY earn enough to pay full-price lunches, cannot afford to pay the full-price. I know that this might be hard to pull off, and I know that not a lot of government money goes towards education, but I believe that school lunches are not worth the money families pay for them”*



## **Stakeholder Feedback**

### ***More Effective Partnerships***

Several stakeholders commented that better partnerships between groups could leverage resources and opportunities. One stakeholder noted, *“We need to try to make that bridge. There’s a lot going on in our community and so many different agencies working on this.”* Several food services directors said they would like to have closer connection with each other and have opportunities to collaborate and support each other. One stakeholder commenting on non-profit organizations said, *“If they could combine forces that would be the best thing. They clearly are in competition. And they all want to do something in the school and find out a way for us to pay for it.”* A non-profit stakeholder agreed saying, *“There should be more consolidation of programs, and the wellness committee and collective impact committee should work together. There should be partnerships with multiple BOCES, the food bank and the school districts to buy food.”* Another non-profit stakeholder said she would like to see *“alignment in goals and efforts between funders and alignment between programs and the school districts.”*

A school stakeholder said, *“I think we could be more united. I feel the district is interested in health and nutrition, but we could be more coordinated with resources so we’re all doing it.”* Another school stakeholder said, *“Particularly in the elementary schools, we have a lot of different funded programs. They go out and seek grants for their schools. If we could evaluate what all the different schools are doing, what’s beneficial, the perceptions of parents and kids and look at globally and see what’s successful and replicate it. There’s a push to have individual culture, but that doesn’t mean that we can’t streamline things and have some consistency across buildings and know what’s working and what’s helping.”*

A non-profit stakeholder suggested that there are opportunities to explore more non-traditional partners such as doctors’ offices, the hospital and BOCES. Another stakeholder agreed saying that ideally there would be a consolidation of programs, more buy-in from the school district, a collaboration between the districts’ wellness committees and the collective impact group, and partnerships with multiple BOCES, the food bank, and school districts to buy food. Other stakeholders noted they would like to see more direct partnerships between schools and local farms.

### ***Better Information Distribution***

Some stakeholders said they felt that many people did not know about available resources and that a system to share that information would be welcome. A school stakeholder said, *“Being new to the area, I would like to see a landscape analysis of what organizations provide assistance that are not associated with schools that I might be able to go partner with.”* Another school stakeholder said, *“I would like to know who people identify as point of contact and what agencies people are actually working with and maybe resources that people are utilizing and where they go. At the schools, it would be good to have a comprehensive list and be able to share that. It would help streamline things a little bit more. We have a transportation liaison, we have family liaisons in buildings. I think maybe having the same for food and nutrition or having more information about resources all in one place so we’re not looking all over.”*

### ***Incorporate Student Feedback***

Several stakeholders noted that any processes related to food and nutrition should continue to involve student feedback. One school stakeholder said she *“wants to get students involved, to give new ideas, and create the goals.”* Another community stakeholder said, *“There is an opportunity to involve students on how foods are prepared and have young people take a more active role.”* Another stakeholder said she would like to see more student choice and voice in what’s being served. A parent suggested,

*“Incorporate students into the meal preparation process at lunch - make it an integrated class that results in a delicious meal. For upper level students let them see how food is purchased and stored and prepared. Let them plan healthy menus that will also satisfy their classmates, give them power over their school lunch/breakfasts.”*

### **Develop Community Vision**

Several stakeholders noted that there is a lack of unity around the goals and methods for addressing child nutrition in the county. One stakeholder said she would like to see a cohesive vision for the county where *“the healthy choice is the easy choice.”* She also suggested that the community needs increased exposure and awareness of policy barriers preventing equity and decreased food security. Another stakeholder suggested the community take a *“whole child, whole school, whole community”* approach to connect all the different aspects that are important to the health of the child. Another stakeholder remarked on the importance of having a robust district wellness committee which includes community members, students, and staff. A parent said, *“Lots of schools are doing innovative things around food, let's learn from those examples. When my child started school I was told that unless there was a teacher who was willing to champion better food programming, it wouldn't happen. That shouldn't be the case. Instead, food should be a part of every curriculum and get attention from every teacher...I know they have a lot to deliver but is connecting one or two lessons to food really that hard? We can't just give underserved students free or reduced price meals and say we are improving nutrition. We need to incorporate healthy living into our culture and then create avenues to ensure everyone has access.”* One stakeholder said that there is *“an opportunity to think bigger, to be aspirational”* in the community vision.

### **Sustainable Programming & Funding**

Several stakeholders noted that sustainable funding and programming is vital to creating any meaningful change. Some stakeholders suggested that the school districts should commit on-going funding to both the food services departments and to nutrition education programs. A principal said, *“I'd like to be able to do something with nutrition and feeding kids and educating them well, but I want it to be sustainable, not a hit or miss proposition. They're always coming back to us asking for money. I want to focus on something that's sustainable and not rely on the PTA for funding, but rather to have district funding. If the district is committed to it, the district would be hiring food educators and we could all do healthy nutrition. There wouldn't be hit and miss, one year to the next.”* One non-profit stakeholder said, *“We need funding and ways to make it sustainable over time and that's why I'm focused on the cost effective argument. I think that's what's ultimately going to make this more common – that you save money in the end.”* A parent suggested, *“Give priority and funding to food and food education (ingredients, preparation, food sources, labeling, menus, marketing) instead of treating it as an afterthought and a budget expense item at \$1 per student (or whatever the current ridiculous amount is).”*



## Conclusion

Tompkins County is rich in resources. There are many programs and individuals engaged in efforts to improve child nutrition, but there are several opportunities to increase the amount and quality of food available to children in Tompkins County and their openness to consuming it. School meals, for example, are an area where significant improvements could be made. School meals have the potential to provide third of the meals a school-age child eats during the year, but the program is underused. Participation rates for all children vary by school district and by eligibility for free or reduced price meals, but overall, are relatively low. Stakeholders across the spectrum commented that school meals represent a “missed opportunity” in the effort to ensure every child has access to healthy foods. Stakeholders also nearly universally agreed that more cohesive and robust nutrition education is a key element in ensuring that children have a healthy orientation to food.

Despite this consistent assessment, feedback received from these same stakeholders reveals a perception that other stakeholder groups “aren’t on board.” During an interview, one food service director said, *“It’s a little bit of a challenge, you’re not only trying to get children to eat, you’re trying to have the parents, teachers, and your own cafeteria staff on board and open minded. It’s a challenge. You have to take baby steps.”* A non-profit nutrition education stakeholder said, *“Getting the buy-in from teachers is a challenge. Not that they’re hostile or negative, but it’s a challenge just getting them to take it seriously on an educational level.”* A school stakeholder said, *“There are different groups that seem to be in competition with each other and don’t work well together. We’ve had several different go rounds with different combinations or permutations.”* Another school stakeholder said, *“I think one of the challenges is (cafeteria) staff flexibility. That certainly is an issue with trying new things and introducing new items so I think that I think it’s a personnel issue to be completely honest.”* Another school stakeholder said, *“Parents are a challenge. I think the parents that come are receptive, but getting parents engaged in is a challenge generally in this community.”* A food service director said, *“We don’t hear much from parents regarding nutrition.”* A school stakeholder noted, *“We’re at the mercy of the board on a lot of different things. And unfortunately what the board passes is what they feel is important.”*

What seems very clear is that there is no cohesive vision of how child nutrition should be valued, addressed, or assessed. The non-profits working in the area frequently have very specific agendas and philosophies, school districts have little focus other than meeting USDA guidelines for meal programs, and there are no comprehensive curricula or assessments for students’ skills or knowledge attainment related to nutrition. This lack of community vision has resulted in silo-ed efforts reaching pockets of children with narrowly focused goals. Some stakeholders suggested that remedies should be focused on specific challenges within specific schools; however, this study finds that the primary issues and challenges related to child nutrition are systemic and should be addressed as such.

In order to ensure that children in Tompkins County have access to healthy and nutritious food, stakeholders from all areas, schools, cafeterias, non-profits, parents, and health providers, must come together and create an over-arching vision of what it would mean for Tompkins County to successfully address child nutrition. There are several critical elements that must be achieved to create this vision.

First and foremost, the county must coalesce around the reasons for improving child nutrition. Some stakeholders suggest that childhood obesity and the negative individual and public health outcomes is reason enough to pursue improving child nutrition. While public health is clearly a vital issue for the county, it has proven to be a challenge to rally meaningful public support using obesity as the marker.

Our society places a great deal of emphasis on individual responsibility with reference to the health complications of obesity and diminishes the community's role in addressing the issue. Confounding this challenge is the prevalence of adult obesity. There is a danger in stigmatizing and alienating critical stakeholders such as food service workers, parents, and service workers by focusing the discussion on weight.

A more fundamental motive for focusing on child nutrition is the notion that children have a fundamental human right to adequate, nutritious food and the knowledge necessary to reach their full physical potential. An acknowledgement and embracement of this human right would require all stakeholders to be accountable in their efforts and bring equity into conversations about programming priorities. Within these efforts it will be important to change who carries the mantle of responsibility for deciding what children eat. A message heard from all types of stakeholders in this study is that children are the decision makers of what they eat both at home and at school. Parents of all economic backgrounds frequently said that their biggest challenge in incorporating healthy foods is that their children are picky. Food services directors create their menus based on the assumption that children won't eat anything except hot dogs, chicken nuggets, tacos, and pizza. However, results from this study clearly show that students want nutritious food that is appealing and tastes good and are interested and willing to learn about how to have a healthy diet. A shift in perspective will be a key in overcoming pervasive attitudinal barriers to change.

To overcome structural barriers, it will be necessary to identify who will drive the process for developing the community vision, supporting collaborations and facilitating the process of change and improvement. Currently, Tompkins County does not have a fully-funded, staffed organization focused on improving child nutrition. The Collective Impact group working on child nutrition has been hindered by a lack of organizational "backbone" to push the initiative meaningfully forward. Identifying and funding the proper group or groups to facilitate change will be a critical step. An important element of this work will be to determine how to measure success and identify on-going challenges. A coordinated approach will help to codify indicators and methods for measuring achievement.

## Opportunities

**1) Increase the quality of school food in terms of taste and nutrition** *There are many school districts across the US that have successfully improved the food they provide. These districts range in size and in the number of students eligible for free meals. The message: No district is a “special flower” of uniqueness that cannot incorporate better, healthier food. There is an overwhelming amount of information and resources to support these efforts. It does not require “re-inventing the wheel.”*

- a. Make more meal items from scratch
- b. Eliminate/reduce highly-processed, high sugar products
- c. Incorporate unlimited salad bars with meal purchase which include sufficient proteins and grains to create a fully reimbursable meal
- d. Provide healthy, meal-based vending options in the high school
- e. Extend lunch menu cycles to incorporate more variety

**2) Increase participation in school food programs**

- a. Communicate the value and healthiness of school meals to parents and market the convenience and quality of school lunch to justify cost
- b. Make ingredient and recipe information available to families, invite parents to come experience school meals, provide parents the option to monitor what their child selected for breakfast/lunch
- c. Expose students to engaging marketing efforts such as “Chef Meals”
- d. Consider implementing the Community Eligibility Provision in schools where possible

**3) Bolster district food services budgets**

- a. Subsidize school food services *If ICSD were to contribute to the food services budget by doubling the value of food purchased it would increase the overall school budget of \$120 million by only one half of a percent, but would have a huge impact on the ability of the food services department to provide high quality, healthy foods.*
- b. Consider increasing per meal prices for paid meals to increase the budget and purchase higher quality foods

**4) Create a school culture where students are engaged with food decisions**

- a. Involve students in decisions about menu items through taste-testing and voting on new items
- b. Incorporate student-led research and evaluation of the food environment to find and develop recipes; market to peers; and partner with students from farm to school programs for produce to integrate into recipes
- c. Conduct “Student Chef Contests” with taste-tests and judging by other younger students

**5) Create an environment conducive to healthy eating and conversations about nutrition**

- a. Increase the amount of time for meals
- b. Experiment with family style meals
- c. Experiment with offering recess before lunch for elementary students
- d. Encourage school adults to focus on conversation rather than discipline in the meal environment
- e. Experiment with lunch room design and

**6) Expand nutrition education opportunities and increase kids' opportunities to grow, cook, eat food**

- a. Empower an organization or coordinator to manage programs and partnerships to ensure equity and consistency
- b. Ensure on-going, consistent funding
- c. Explore using Food Corps/AmeriCorps members as food educators in schools
- d. Consider tapping Cornell Nutrition students as food educators
- e. Provide easy grant opportunities for teachers using a food-based case study approach
- f. Consider opportunities to support more consistent and expanded integration of nutrition education with the Fresh Snack Program
- g. Explore offering FBST's Kids' Farmers' Markets or school-based food fairs in conjunction with nutrition education opportunities and food giveaways *FBST is exploring other opportunities to partner with schools and districts to provide more and healthier food options including their Kids' Farmers' Market program which provides free vegetables in a farmers market-style set up to allow kids to "shop" for vegetables they like or haven't tried yet.*

**7) Improve charitable food access and offerings**

- a. Support FBST's efforts to expand produce availability in pantries
- b. Support efforts to deliver and provide healthy food options to low-income families
- c. Support efforts for school districts and child care centers to donate unused food to charitable organizations

**8) Support food and wellness policy improvements**

- a. Encourage robust school-based wellness policies
- b. Support food service departments to collaborate and explore group buying power
- c. Encourage community-based wellness plan/group
- d. Ensure year-round availability of food resources to all children
- e. Develop metrics to evaluate progress