

Bringing Home Economics Back and Reducing Obesity
Rates Along with Irresponsibility

Quality of Life Innovation Proposal

Submitted April 23rd, 2018

Table of Contents

I.	Summary.....	1
II.	Background research.....	1-5
III.	Research and Analysis.....	5-10
IV.	Recommendation.....	11-13
V.	Implementation.....	14-16
VI.	Financial Implication.....	17
VII.	Conclusion.....	17-18
VIII.	References.....	19-21
IX.	Appendices.....	22-45
	A. Appendix A: Expert Outreach.....	22
	B. Appendix B:Field Research Survey Too.....	23-34
	C. Appendix C: Descriptive Tables.....	35-38
	D. Appendix D: Pivot Tables.....	39-40
	E. Appendix E: E-Mail to AP of English, ESL, Music and Art.....	41
	F. Appendix F: E-Mail to NYSAFCSE.....	42-43
	G. Appendix G: Screenshots of Website.....	44-47
	H. Appendix H: Screenshot of Petition.....	48

Summary:

The lack of home economics classes is a major quality of life issue of local communities. Children are growing up without the knowledge of how to cook or how to take care of themselves nutritionally. According to Graham (2013), “almost a third of Americans under the age of 19 are now overweight or obese.” Americans have become complacent and indifferent when it comes to food intake and nutrition. My field research showed that 31.5% of participants never cooked or could not cook for themselves, and 78.69% would eat fast food from once a week to everyday. The amount of people who go out for fast food is overwhelming, and the reason behind this is correlated to the fact that they never cooked for themselves or do not know how to. I have started implementing a unit within the health class of our school (High School of Telecommunications of Arts and Technology) that would teach students home economics. I recommend that other schools around New York start teaching home economics within their health classes, hoping it would lead to a mandatory class within the school. More information to spread awareness of home economics and its importance will be available on a website, <https://learnhomeeconomics.weebly.com/>, which I have created. Furthermore, I have reached out to teachers in existing home economics organizations and will have one of them collaborate with our current Health teachers and perhaps facilitate the home economics unit. By addressing this issue, I hope that students will grow up knowing how to manage their own lives effectively by being self-sufficient and healthy which would improve their overall quality of life.

Background:

Having a good education is important; however, it is also essential for an individual to be able to take care of themselves. Home economics, a domestic science class or consumer science,

was a program in the school curricula that taught students how to cook and manage their own homes and lives. It was founded by the president of the American Home Economics Association, Ellen Swallow Richards. She was a chemist at MIT and created the program for school curricula so that men and women would learn how to manage a home together. However, during the Cold War, fundings were focused on science departments instead of school programs (Dyas, 2014). There was a need for nuclear arms, so domestic science classes were no longer a priority. Later on, this caused people to see home economics as an irrelevant class and according to Dyas (2014), home economics was a “dead end high school class for girls.” With fewer schools providing home economic classes, schools began focusing more on classes like math and English. Unfortunately, as these students grow into adults, they will be in charge of our next generation and not being able to take care of themselves would mean that they would not be able to take care of others or their own family.

There are many reasons as to why America needs a mandatory home economics class in the school curricula. According to Graham (2013), “... almost a third of Americans under the age of 19 are now overweight or obese,” meaning that students lack the education they need, causing many of them to become irresponsible adults who are eating blindly without knowing the consequences of their actions. Many people do this because in today’s society, fast food restaurants are widely advertised. As a result, it makes going out for a meal much more efficient and easy which causes teens to have an unconventional eating habit. Sztainer’s (2007) research shows 57% of girls and 33% of the boys have an unhealthy weight control behavior. Of that sample size, 15-20% are overweight, 55% girls and 28% boys are affected because of their dieting behaviors like skipping meals and eating very little (p. 11). These statistics demonstrate

how impactful the lack of nutritional knowledge is. Most of these teens are unhealthy because they lack the alternative options for ways to lose weight or eat healthily. A survey conducted in a New York State middle school measured the impact of a school-based nutrition teaching program. Based on the results, found by Devine, Olson, and Frongillo (1992), it was concluded that "... additional exposure to the program was associated with significantly higher nutrition attitude and behavior scores" (p. 381). Home economics, like this nutrition class, would directly impact many students' future choices and options because they would learn how to cook for themselves instead of simply relying on fast foods or their parents. Having a mandatory class dedicated to home economics, teaching children about their health and nutrition can help students acquire the skills and knowledge necessary to become independent and healthy.

In the U.S, there are multiple programs that combat the lack of home economics classes. Since home economics and domestic science classes are not mandatory in the school curriculum, New York State decided to implement a program called Family and Consumer Science (FACS). FACS is a program for students to learn life skills such as management of their responsibilities and understanding human services, family studies, textiles, design, and nutrition ("New York State," 2017). This program is a proxy for home economics for those who apply; however, many people do not know about this program nor heard about it. The lack of information on the importance of home economics is what led to the creation of FACS which is not only offered in New York, but in California, New Hampshire, and Pennsylvania as well. The need for a class to teach students the life skills they require is apparent, and many have taken action for the revival of home economics. Helen Zoe Veit, an assistant professor at Michigan State University (2011), argues that "reviving the program, and its original premises...could help us in the fight against

obesity and chronic disease today.” For this purpose, it is up to the community to take advantage of any programs that are provided, and the government to raise awareness regarding the importance of home economic classes.

Changes made to the school curriculum are generally under the jurisdiction of state and local governments. The U.S. “Department of Education [DOE] was created in 1867 to collect information on schools and teaching that would help the States establish effective school systems” (“The Federal,” 2017). In every state, DOE has authority over the classes in each school curriculum and their fundings. In 1917, the Smith Hughes Act provided federal funds for vocational education in agricultural, industrial trades, and home economics (Steffes, 2014). In the past, domestic science classes lacked the fundings required to spread and advance. The funding for the DOE allowed home economics classes to flourish and integrate into the school curriculum. Rather than making home economics mandatory, it was only made into an elective class which many overlooked. With proper funding, consumer science classes being in the school curriculum may be possible.

Non-profit organizations have also been created to increase the opportunities given to students. Some non-profit organizations are International Federation For Home Economics (IFHE), The National Association Teachers of Family and Consumer Sciences (NATFACS), and American Association of Family and Consumer Sciences (AAFCS). These organizations support communities in order to “achieve optimal quality of life” (“About us,” n.d.). In addition to supporting communities, they help spread awareness of the influence that home economics classes have on students. The IFHE is the “only worldwide organizations concerned with Home Economics and Consumer science” (“What is,” n.d.); also, they have a program that promotes

home economics in education called Home Economics Policies in Education and Training Programme (HEPET). They offer classes from elementary through junior high school to teach children about nutrition and home management. In addition to giving students and professionals possible career paths, the associations encourage people to take into consideration the usefulness of consumer science classes and its impact on the generation and next. Although these organizations are beneficial to the community, the public lacks the general knowledge to understand how useful home economics classes are.

The scarcity of home economics classes in the U.S. could be solved using the societal norms of other countries. In Japan, they require all students to take home economics classes for eight years (Gordenker, 2001), making them the only country to do this. Gordenker (2001) emphasizes that Japan's home economics course is designed to make students "think about what kind of life, and what kind of household, they should have as adults." The fact that the course is forced means that the students have no choice, but to take it and think about their cooperation and role in the community and household, leading to a more responsible adult. America does not have a mandatory home economics class, instead, it is incorporated as an "elective" class which isn't offered in most schools. Making home economics mandatory in America instead of an elective class may prove to be beneficial for teens and future generations. More research is needed to understand if students feel that taking a mandatory home economics class is necessary and useful for their lives.

Research Paper:

This research project was conducted to gather information on how residents in New York City feel about home economics and whether it is necessary for students. The research tested if an

individual was self-sufficient or not in terms of taking care of themselves nutritionally. It also served the purpose of seeing if the cooking aspect of home economics, or any cooking class would be useful for students so that they would live a healthier lifestyle. Before completing my study, I expected most people were not self-sufficient in terms of health and nutrition. Also, according to Mary Christoph, a post-doc of Professor Neumark-Sztainer (Personal communications, January 16, 2018) (see Appendix A for email), said that “Higher nutrition knowledge is associated with better dietary intake among adolescents”, which is what I hope is proved by my research project. In order to gather multiple opinions from people of different backgrounds in New York City, I decided using surveys was the most efficient way. Therefore the reason I am conducting this research is to see if people take their health into consideration when eating, and to ultimately find a solution to bad habits or unhealthy diets.

My population of interest was high school students and older. In order to select where I was going to conduct the research, I used a cluster sampling where I chose five locations through a randomizer. I had a list of 12 places in New York City and assigned each one with a number. Through the randomizer, the five locations chosen were Fort Hamilton High School, Cooper Union, Union Square Park, 86th street, and High School of Telecommunications.

On my survey (see Appendix B for survey), there was a confidentiality clause stating that all results and responses would be confidential and used only for research purposes. I had 14 questions: five demographic, three knowledge, four behavioral, and two attitudinal questions. First, the demographic questions addressed gender, age, education level, weight, and height. Then the behavioral questions tested an individual’s feelings about nutrition like how often they skipped a meal, go out for fast foods and cook for themselves, while the knowledge questions

asked them to rate their own level of cooking expertise, and if they had taken any home economics, nutrition, or cooking classes, and if home economics was offered in their school or not. Lastly, the attitudinal questions tested opinions on whether home economic can prepare teens, and if students should know how to cook or not.

During the research period, 125 surveys were handed out, but three were invalidated due to incompleteness. The analysis of the data is to be based on a 95 percent confidence level and the confidence interval of a 122 sample size taken from a population of 352,000 New York City citizens in the areas chosen, is ± 8.87 . First, for High School of Telecommunications, I used a Google form, which would be voluntary and sent randomly to each student in my school. Of the 53 that responded, I selected 20 by assigning each student a number from 1-53 and then randomly selected 20 to be a part of my research. Then on Tuesday, February 20th, I conducted my first field research near Fort Hamilton High School where I used a systematic random sampling method by asking every 4th person that passed me to take a survey. When a survey was accepted, I would give them space and wait for them to finish. In a span of about two hours, I only had 27 people take my survey of the 40 people I asked. The following day, February 21st, I traveled to Cooper square in East village and within two hours I asked 63 people and 30 refused to take it, while 33 took my survey. Then, I walked to Union Square Park and asked 26 people to take my survey, but only 16 did. I decided to go back to Union Square park on February 22nd and had 6 people take my survey from the 13 people I asked. On February 26th, I went to 86th Street between 4th and 5th Ave after school and was able to get 11 people to take my survey of the 15 I asked. Finally on February 28th, I asked 19 people to take my survey and with only 7 people refusing; I had 12 responses.

After analyzing all my data from the surveys, I found that of the 122 samples, there were only 18.9% that had home economics, nutrition, or cooking classes in their schools. For the other 80.1%, they never had a chance to take those classes in their school, or they were unsure whether it was offered or not. From this, I could tell that if students wanted to take a class related to cooking or nutrition, they would have to rely on outside sources like programs or be self-taught. As a result, this would give these students a disadvantage in taking care of themselves and they would be less self-sufficient in the future.

8) Does your school offer home economics class or a class related to cooking or nutrition? (Family and Consumer Scienc...

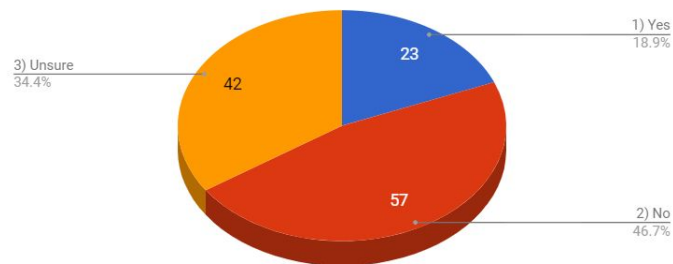


Figure 1

By comparing their knowledge of the class within their school to their behaviors in having taken the class or not, both are related to the sample population's knowledge in health and cooking. In Figure 1, it shows that there were less people given the opportunity to take classes related to cooking and nutrition, and in Figure 2, the question asked was whether they had taken one of the classes listed or not. They had a choice of choosing between Home Economics, Home Ecology, Family and Consumer Science, Nutrition, Culinary/Cooking, one or more of them, other, or none of the classes. While there were 69.7% of the sample that took none of those classes, there were only 30.3% who took a class listed. This shows the same results as

Figure 1, where students and adults were unable to take these classes or programs due to their lack of knowledge or they found these classes unimportant and unnecessary for themselves.

9) Have you taken at least one of these classes before?

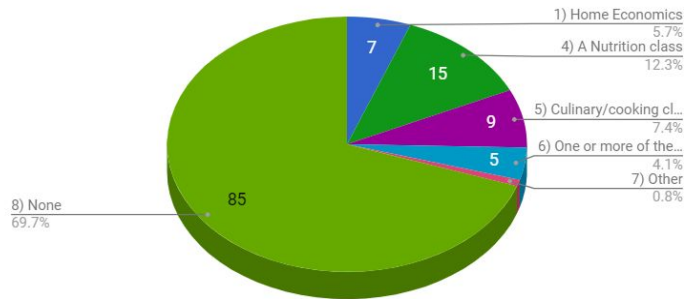


Figure 2

For the graph that represents a pivot table (see Figure 3), it is showing the correlation between the amount of times people cook per week to the amount of times people go out to eat fast food on a weekly basis. Of the 122 people who took this survey, 38 people noted that they “never” cook for themselves. From these 38 people, only 21.5% never go out for fast foods while the other 78.5% go out from once a week to everyday for fast foods. Those who never go out for fast food, and never cook for themselves probably go out to eat proper food or they eat the food that was prepared by their parents or others. Furthermore, if we were to look at the right side of this chart, those who cook for themselves everyday, 48.86% never go out for fast foods while 51.14% go out from once a week to everyday for fast foods. Compared to the 78.5% that never cook for themselves, those who cook for themselves everyday tend to go out less for fast food. Based on the data, I assume that those who are unable to cook for themselves tend to go out more for fast food. Additionally, those who are more knowledgeable in nutrition and cooking, cook for themselves or go out and eat healthier meals. Overall, there were 31.5% that never or could not cook for themselves and 78.69% of the sample that would go out for fast foods from once to

every day of the week. These results prove my hypothesis to be correct; most people are not self sufficient, and are unhealthy due to excessive intake of fast food from their lack of knowledge of cooking and nutrition. Therefore, a possible solution would be to make the cooking and nutritional aspect of home economics become a mandatory class in the school system. (See Appendix C and D for all data and analysis)

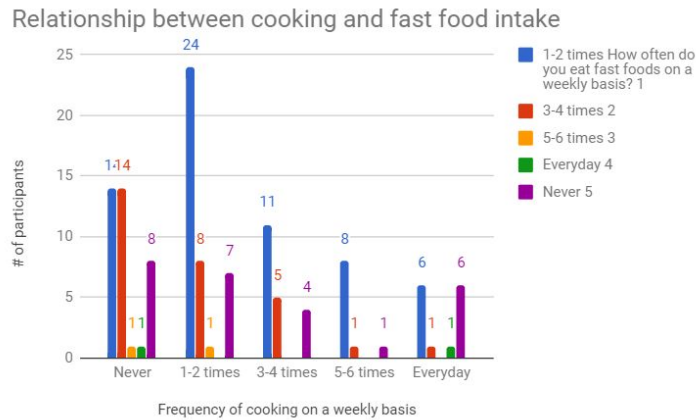


Figure 3

Recommendations:

My studies demonstrate that people in New York City do not have enough knowledge of being self-sufficient in terms of their nutrition. Based on the data that I have gathered, 81.1% of the sample did not know or were unsure if they have home economics or a class similar to it in their school, and 69.7% never took the class. Moreover, only 25.4% rated themselves a four or five (out of five) in cooking level proficiency which reflects the 63.9% who cook for themselves one to two times a week or never. Since the home economics course is not well known, many would overlook this class if offered in schools. Similarly, there is a lack of home economics classes or classes similar to it in schools like nutrition or cooking. With the lack of these nutrition-based classes, 85.24% of participants believe that students should know how to cook

for themselves and 82.8% think home economics can help students be self-dependent. Based on the results, the solution I recommend will increase awareness of home economics classes and make it into a unit within the health class within my school. Some challenges of this recommendation would be finding the space and money to provide the necessary materials needed for this unit within the school.

In Japan, home economics classes are made mandatory; students are taught how to cook, clean, and take care of their own households. This program has been proven very effective in Japan because young children become independent by bringing in their own meals during lunch breaks. However, making a mandatory class would be a challenge in itself, so teaching home economics in a unit within health classes would be a more realistic approach within my school and this will enable students to have the opportunity to learn how to cook and grow up to be more independent. To change a unit within the health class I would need to talk to school officials for their agreement with this solution but for the possibility that this newly founded course would go unnoticed by students, I recommend the use of posters and announcements within the school to inform students of the new course. Furthermore, some other issues that occur may include: not having a classroom for the cooking utensils and equipment or not having enough money to spare for the tools needed for this elective course.

To inform the public of home economics and its importance for students growing to be adults, I recommend the creation of a website with information on possible programs within New York that can help or provide courses related to home economics. Furthermore, while 25.4% rated themselves a four or five, on a scale from zero to five, and the other 74.6% either cannot cook or rated themselves poorly in terms of cooking level, only 63.9% cook for themselves one

to two times a week or never. This portrays the lack of culinary skills among participants which impacts how frequently they cook for themselves. Since majority of participants do not cook for themselves or rarely do so, I infer that they do not know what to make or are unsure how to make simple but nutritious meals. To resolve this issue, there will be two sections on the website, one which shows videos of the cooking process and steps of the recipes posted, and the other will link to apps that were created to help improve the public's culinary skills and provide a variety of meals for them cook. The apps would contain simple recipes that are healthy and easy to make. To inform people of the app's existence, there will be a section with the app's external link and some information about it within the website. Some challenges in this recommendation would be creating the website and raising awareness of it, but if is successful, the apps and website will allow home economics to be noticed more, giving more people the chance to learn how to be independent.

Implementation:

Step 1: Policy Change: I will create an home economics unit within the Health class in my school by writing letters to the assistant principal Mr. Boulay. (See Appendix E)

Step 2: Community Program: I would have to reach out to teachers from already existing community programs to be a guest speaker for the lessons when the unit is in process. Also the speaker from the organization would also have the chance to collaborate with our health teach to make the unit more successful and impactful. The unit would give students first hand experience in cooking basic meals and they would learn about nutrition and healthier alternatives to fast foods or fried food. (See Appendix F)

Step 3: Campaign Awareness: To inform students and the public of the change in our health unit course a website will be created, containing information on the issue of home economics and the different programs within NYC that provide courses similar to home economics. Also within this website there will also be a small section about the various apps and there will be a link connected to some of them for easy access and download. Furthermore there will be simple recipes that are time conserving and easy to make, along with each recipe there will be a video showing you the process and steps in making the dish. (See Appendix G)

Financial Implementation:

Item/Staff	Purpose	Cost	Donation
Website Hosting Service	To provide information on home economics. Used to raise awareness about home economics.	None	Website will be created on a free-hosting site called Weebly.com
Home economics instructor	To teach a unit of home economics to students in Health Class.	None	Current health teacher will teach the unit.
Equipment for class(cooking)	To give equipments to teacher for a live demo of cooking.	\$21.49- portable gas stove	Stove will be bought by school and cooking utensils can be provided by the teacher.

The financial implementations for my project, includes close to no cost for most of the implementations. The website I created to raise awareness will not cost anything because the site used to make the website is free to use and the instructor is already provided in our school so

there will be no need for further payment. Finally I will have implemented a unit within our health class teaching home economics contents, and within this unit the teacher would show the students how to cook through a video or a live demo of them cooking, therefore, it is needed to buy utensils for the live demo.

Conclusion:

The lack of home economic classes negatively affect the quality of life of communities in New York City. Many students overlook or do not have the opportunity to take home economic classes which leads to an unhealthy outlook on nutrition. By creating a responsive website to raise awareness and implementing a home economic unit within the health classes in the High School of Telecommunications of Arts and Technology, I hope that this implementation will be recognized by other schools so that they would implement this as well. In order to encourage students to take this course, the website will make students find home economics entertaining and enjoyable. Furthermore, students will be more aware of the classes in their schools and be more motivated to take home economic courses as an elective if they were to be offered in their school or in their health classes. It will help students grow up learning what they need to be self-sufficient and take care of their health effectively.

References

- About Us. (n.d.). Retrieved December 01, 2017, from <http://www.aafcs.org/about/about-us>
- Devine, C. M., Olson, C. M., & Frongillo, E. A., Jr.(1992). Impact of the Nutrition for Life program on junior high students in New York State. *Journal of School Health*, 62(8), 381+. Retrieved from http://go.galegroup.com/ps/i.do?p=AONE&sw=w&u=nysl_me_76_tele&v=2.1&it=r&id=GALE%7CA12990163&asid=ccc61a1ca2d01f2854eea4aafddd596d
- Dyas, B. (2014, September 29). Who Killed Home Ec? Here's The Real Story Behind Its Demise. Retrieved November 1, 2017, from https://www.huffingtonpost.com/2014/09/29/home-ec-classes_n_5882830.html
- Gordenker, A. (2001, November 16). Sewing and cookery aren't just for the girls. Retrieved December 05, 2017, from <https://www.japantimes.co.jp/life/2001/11/16/lifestyle/sewing-and-cookery-arent-just-for-the-girls-2/#.WibGkJNg7gV>
- Graham, R. (2013, October 13). Bring back home ec! - The Boston Globe. Retrieved November 02, 2017, from <https://www.bostonglobe.com/ideas/2013/10/12/bring-back-home/EJji9yzjgJfNMqxWUIEDgO/story.html>
- Neumark-Sztainer, D. (2007). Addressing the spectrum of adolescent weight-related problems: engaging parents and communities. *The Prevention Researcher*, 14(3), 11+. Retrieved

from

http://go.galegroup.com/ps/i.do?p=AONE&sw=w&u=nysl_me_76_tele&v=2.1&it=r&id=GALE%7CA168632035&asid=cd9a832f1be357b662c5937e2720db91

New York State Association of Family and Consumer Sciences. (n.d.). Retrieved December 01, 2017, from <http://www.nysafcse.org/About-Us>

Steffes, T. L. (2014, June 09). Smith-Hughes Act. Retrieved December 01, 2017, from <https://www.britannica.com/topic/Smith-Hughes-Act>

The Federal Role in Education. (n.d.). Retrieved December 01, 2017, from <https://www2.ed.gov/about/overview/fed/role.html>

Veit, H. (2011, September 5). Time to Revive Home Ec. *The New York Times*. Retrieved November 2, 2017, from <http://www.nytimes.com/2011/09/06/opinion/revive-home-economics-classes-to-fight-obesity.html>

What is IFHE? (n.d.). Retrieved December 01, 2017, from <https://www.ifhe.org/34/>

Appendix A: Expert Outreach

Tue, Jan 16, 2018 at 2:53 PM

Mary Christoph
<mjchrist@umn.edu>

To: frankl4510@hstat.org

Hi Frank,

I'm a post-doc emailing on behalf of Professor Neumark-Sztainer. To answer your questions:

1. How might nutritional knowledge affect the choices of adolescents?

Higher nutrition knowledge is associated with better dietary intake among adolescents (e.g. [Grosso et al., PHN, 2013](#); [Ferris et al., IJAHD, 2016](#); [Pirouznia, IJFSN, 2009](#), etc.). However, one criticism that people might have is that adolescents who are particularly interested in nutrition are the ones with higher nutrition knowledge; essentially, interested adolescents seek out information and have better diets, while those who are less interested in nutrition are also more likely to have poorer diets. There is evidence that nutrition education can improve dietary intake (e.g. [Ajie and Chapman-Novakofski, JAH, 2014](#)), however, so providing education and increasing nutrition knowledge would likely improve eating habits.

2. In your opinion, how may home economics classes affect teen's weight problem?

There aren't many studies on this topic, so it's hard to know. While nutrition education has been associated with lower weight (e.g. [Viggiano et al., EJP, 2015](#)), and [another study](#) found that home economics teachers believed they could influence food choices and health outcomes among students, to my knowledge, this hasn't been empirically tested in a large study. Part of the reason for this is that home economics courses vary from state to state and even within school districts, and at least in Minnesota, they might focus more on things like food safety rather than cooking healthy food. So while a well-designed home economics course might

improve nutrition and ultimately weight, a study like this would be difficult to conduct. Project EAT research has found that cooking at home is associated with better diet quality, so presumably improving cooking skills or otherwise encouraging more cooking at home would help with improving nutrition.

However, one study in Canada actually suggested that home economics classes could negatively impact eating habits:

"Adolescents also depicted how food and beverages were used in school classroom settings. Several adolescents mentioned that they were enrolled in a home economics course (called "foods class" by adolescents) at their school. They said that this class was a problem because they felt they made mostly less healthful foods and perceived they were required to consume the foods they made: *'I'm in a foods class and [my teacher] likes to have us cook like really unhealthy foods. And at the beginning of the year I was eating a lot more, I tried to cut back but she would do like a week and we would make like three pies in a week or something crazy like that and so that probably wasn't helping.'* In addition to foods class, some teachers used treats, including ice cream and pizza, during class as teaching tools or for social activities: *'[my teacher] really likes to give out, like lollipops and like, and to teach us things, she uses like, pizza and ice cream and licorice and stuff. So yeah, that can be hard to be around that sometimes.'* One adolescent described the challenge she faced with the weekly student-supplied snack break that occurred in one of her classes: *'my teacher, kind of like, wants us to bring in healthier foods as well. But no one else really wants it.'*"

3. In your research, of those who had an unhealthy weight (both boys and girls), what might have caused them to act the way they did? Were they aware of the consequences that their actions would've caused?

Overweight and obesity are caused by a range of factors. While those who have a higher weight are often at-risk genetically, the dramatic increase in overweight and obesity over the past few decades has largely resulted from environmental causes that have contributed to poor dietary intake, decreased physical activity, etc. (Hill and Peters, Science, 1998; Ebbeling, Pawlak, and Ludwig, Lancet, 2002).

Research from Project EAT and other studies shows that rates of dieting and unhealthy weight control behaviors are very high among adolescents (e.g. [Boutelle et al, JPP, 2002](#)), and are associated with [weight gain long-term](#) and may be associated with precursors to [eating disorders](#). This suggests that adolescents are highly motivated to lose weight (and thus they likely understand that excess weight might have social or health consequences), but that the environment isn't necessarily promoting healthy weight. Also, since adolescents are often not financially independent and likely depend on food provided by families and schools, interventions to improve weight among adolescents would also have to factor in these environments.

Thanks for your questions and good luck,
Mary

----- Forwarded Message

From: Frank Lu <frankl4510@hstat.org>

Date: Fri, 12 Jan 2018 11:19:22 -0500

To: <neuma011@umn.edu>

Cc: <MLipari@schools.nyc.gov>

Subject: Student Research Project

Dear Ms. Sztainer,

My name is Frank Lu, and I am a senior attending the High School of Telecommunications Arts and Technology(www.HSTAT.org <<http://www.hstat.org>>). Our class is working on a research project sponsored by the Wise Foundation (<https://www.wise-ny.org><<https://www.wise-ny.org>>). I am researching the effects of having little to none home economics courses in the school curricula. I saw your research on adolescents unhealthy weight controlling behaviors, and I wish to ask you a couple of questions regarding this issue for more clarification in my research. Feel free to give extra information that may help further my knowledge on this subject.

1. How might nutritional knowledge affect the choices of adolescents?

2.

1. **In your opinion, how may home economics classes affect teen's weight problem?**

2.

1. **In your research, of those who had an unhealthy weight (both boys and girls), what might have caused them to act the way they did? Were they aware of the consequences that their actions would've caused?**

2.

If you have questions or comments for me or my teacher, Mr. Lipari, you can reach him at MLipari@schools.nyc.gov <<mailto:MLipari@schools.nyc.gov>> and me through frankl4510@hstat.org <<mailto:frankl4510@hstat.org>> . Thank you for your time have a great day!

**Sincerely,
Frank Lu**

----- End of Forwarded Message

--

**Mary J. Christoph, PhD, MPH
Postdoctoral Fellow
Division of General Pediatrics and Adolescent Health
University of Minnesota
[1300 S. 2nd St, Suite 300](#)
Minneapolis, MN 55454**

Appendix B: Field Research Survey Tool

Statement of Confidentiality: This survey is being conducted by a student at the High School of Telecommunications of arts and technology. Participation is voluntary and all responses will be kept strictly confidential. Thank You

Home economics: A class that teaches students about a variety of things like cooking, nutrition, sewing, home management, and child care. It may also be called family and consumer science, and human ecology. (I am focusing on the cooking/nutritional aspect of the class)

Population: Adults and Highschool Students in NYC

1.What is your gender?

- (1) Male (2) Female (3) Prefer not to answer

2.What is your age?

- (1) 14 -18 years old (2) 19 - 24 years old (3) 25 - 30 years old (4) 31 - 36 years old
(5) 37 - 43 years old (6) 44 - 49 years old (7) 50 years old or older

3. What is the highest degree or level of school you have completed?

- (1) Did not complete high school (2) Currently in high school (3) High School
(4) Some college (5) Bachelor's Degree (6) Master's Degree
(7) Advanced graduate work (8)Other _____

4.How much do you weigh in pounds?

- (1) Under 100 (2) 101-120 (3) 121-140 (4) 141-160 (5) 161-180 (6) 200 or more
(7)Prefer not to answer

5. What is your height (feet' inches'')?

- (1) Under 5 feet (2) 5'1'' - 5'3'' (3) 5'4'' - 5'6'' (4) 5'7'' - 5'9'' (6) 6'0'' - 6'3'' (7) 6'4'' or taller
(8) Prefer not to answer

6.On a scale of 1-5, how well can you cook with 1 being not so well and 5 being a great cook?

- (1) 1 (2) 2 (3) 3 (4) 4 (5) 5 (6) Can't Cook

7.How often do you cook for yourself on a weekly basis?

- (1) Never (2) 1-2 times (3) 3-4 times (4) 5-6 times (5) Everyday

8.Does your school offer home economics class or a class related to cooking or nutrition? (Family and Consumer Science,Nutrition class, Cooking class, Home Ecology)

- (1) Yes (2) No (3) Unsure

9.Have you taken at least one of these classes before?

- (1) Home Economics (2) Home Ecology (3) Family and Consumer Science
(4) A Nutrition class (5) Culinary/cooking class (6) One or more of the choices
(7) Other similar class (8) None

10.Home economics can help prepare young adults to become self sufficient (being able to take care of yourself like making your own food)

(1) Strongly agree (2) Agree (3) Neutral (4) Disagree (6) Strongly disagree
(7) Unsure

11. Every student should know how to prepare healthy meals for themselves.

(1) Strongly agree (2) Agree (3) Neutral (4) Disagree (6) Strongly disagree
(7) Unsure

12. How often do you eat fast foods on a weekly basis?

(1) 1-2 times (2) 3-4 times (3) 5-6 times (4) Everyday (5) Never

13. How often do you skip a meal on a weekly basis?

(1) 1-2 times (2) 3-4 times (3) 5-6 times (4) Everyday (5) Never

14. When buying or eating food do you take into account its nutritional value?

(1) Almost always (2) Often (3) Occasionally (5) Never (6) Unsure

Appendix C: Descriptive Tables

Table 1

1. What is your gender?

(1) Male (2) Female (3) Prefer not to answer

1) What is your gender	Count	Percentage
1) male	45	36.89%
2) female	76	62.30%
3) prefer not to say	1	0.82%
Total	122	100

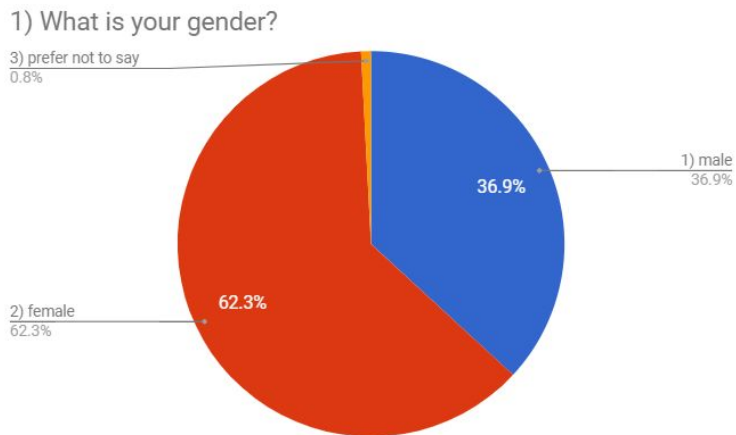


Table 2

2. What is your age?

- (1) 14 -18 years old (2) 19 - 24 years old (3) 25 - 30 years old (4) 31 - 36 years old
(5) 37 - 43 years old (6) 44 - 49 years old (7) 50 years old or older

2) What is your age?	Count	Percentage
1) 14 -18 years old	28	22.95%
2) 19 - 24 years old	30	24.59%
3) 25 - 30 years old	26	21.31%
4) 31 - 36 years old	13	10.66%
5) 37 - 43 years old	4	3.28%
6) 44 - 49 years old	9	7.38%
7) 50 years old or older	12	9.84%
Total	122	100.00%

2) What is your age?

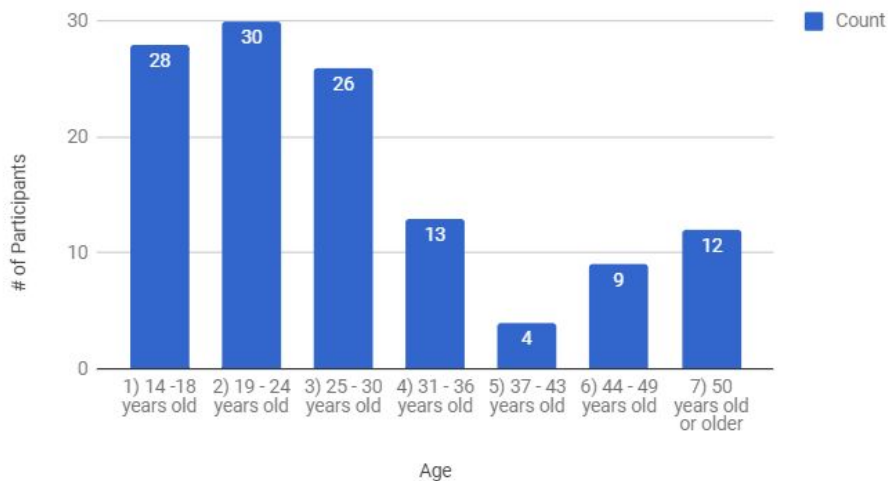


Table 3

3. What is the highest degree or level of school you have completed?

- (1) Did not complete high school (2) Currently in high school (3) High School
(4) Some college (5) Bachelor's Degree (6) Master's Degree
(7) Advanced graduate work (8) Other _____

3)What is your highest education level?	Count	Percentage
1) Did not complete high school	11	9.02%
2) Currently in high school	17	13.93%
3) High school	24	19.67%
4)Some college	28	22.95%
5)Bachelor's Degree	30	9.02%
6) Master's Degree	11	9.02%
7) Advanced Graduate work	0	0.00%
8) Other	1	0.82%
Total	122	100.00%

3)What is your highest education level?

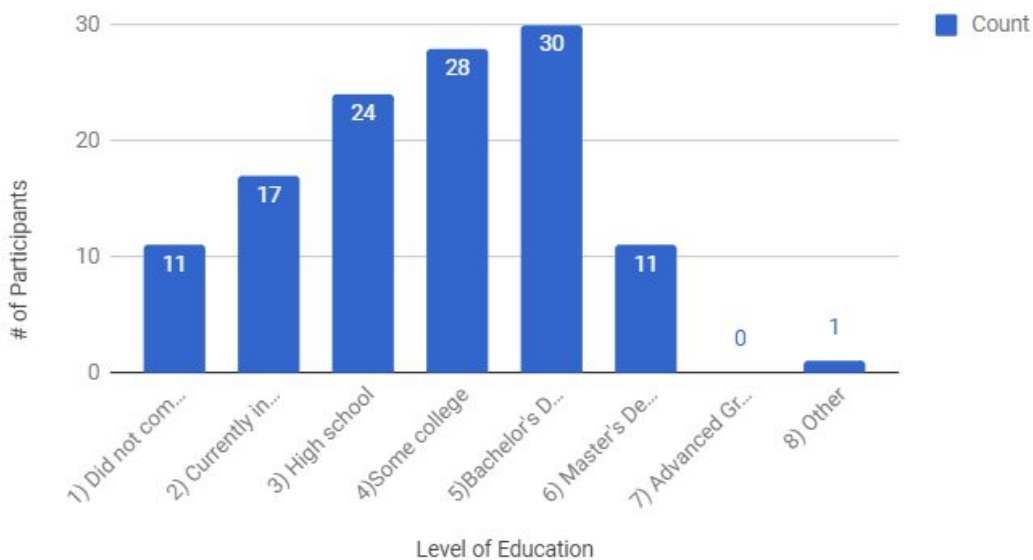


Table 4

4.How much do you weigh in pounds?

(1) Under 100 (2) 101-120 (3) 121-140 (4) 141-160 (5) 161-180 (6) 200 or more
(7)Prefer not to answer

4) How much do you weigh in pounds?	Count	Percentage
1) Under 100	6	4.92%
2) 101-120	44	36.07%
3) 121-140	30	24.59%
4) 141-160	23	18.85%
5) 161-180	11	9.02%
6) 200 or more	8	6.56%
7)Prefer not to answer	0	0.00%
Total	122	100.00%

4) How much do you weigh in pounds?

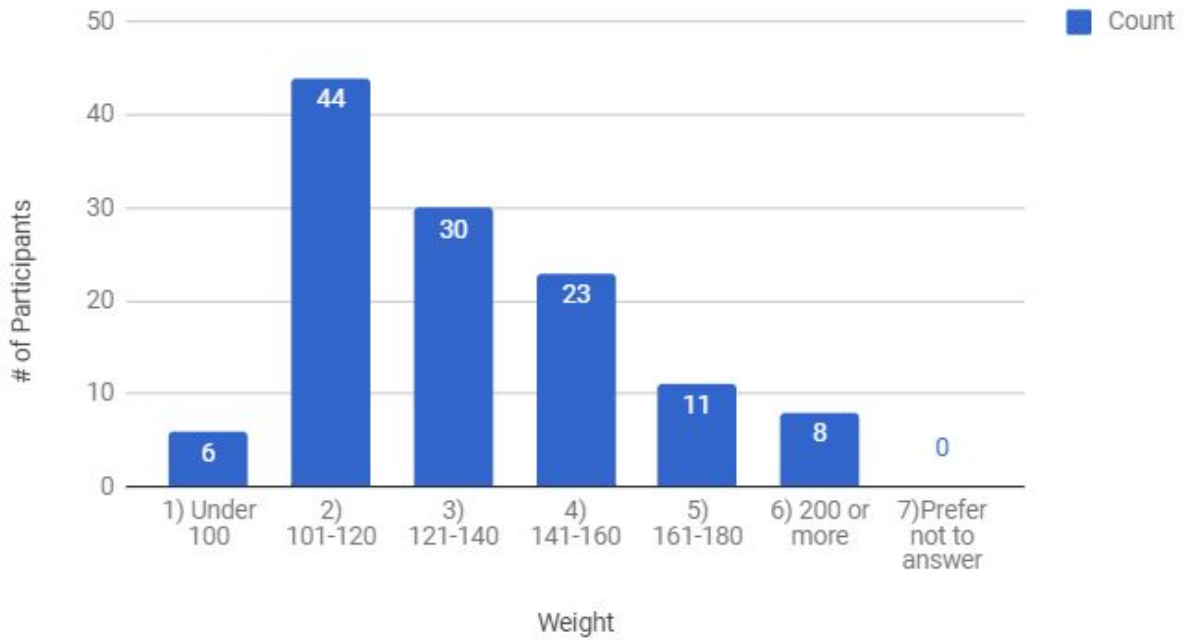


Table 5

5. What is your height (feet' inches'')?

(1) Under 5 feet (2) 5'1'' - 5'3'' (3) 5'4'' - 5'6'' (4) 5'7'' - 5'9'' (5) 6'0'' - 6'3'' (6) 6'4'' or taller (8) Prefer not to answer

5) What is your height (feet' inches'')?	Count	Percentage
1) Under 5 feet	5	4.10%
2) 5'1'' - 5'3''	52	42.62%
3) 5'4'' - 5'6''	31	25.41%
4) 5'7'' - 5'9''	25	20.49%
5) 6'0'' - 6'3''	9	7.38%
6) 6'4'' or taller	0	0.00%
7) Prefer not to answer	0	0.00%
Total	122	100.00%

5) What is your height (feet' inches)?"

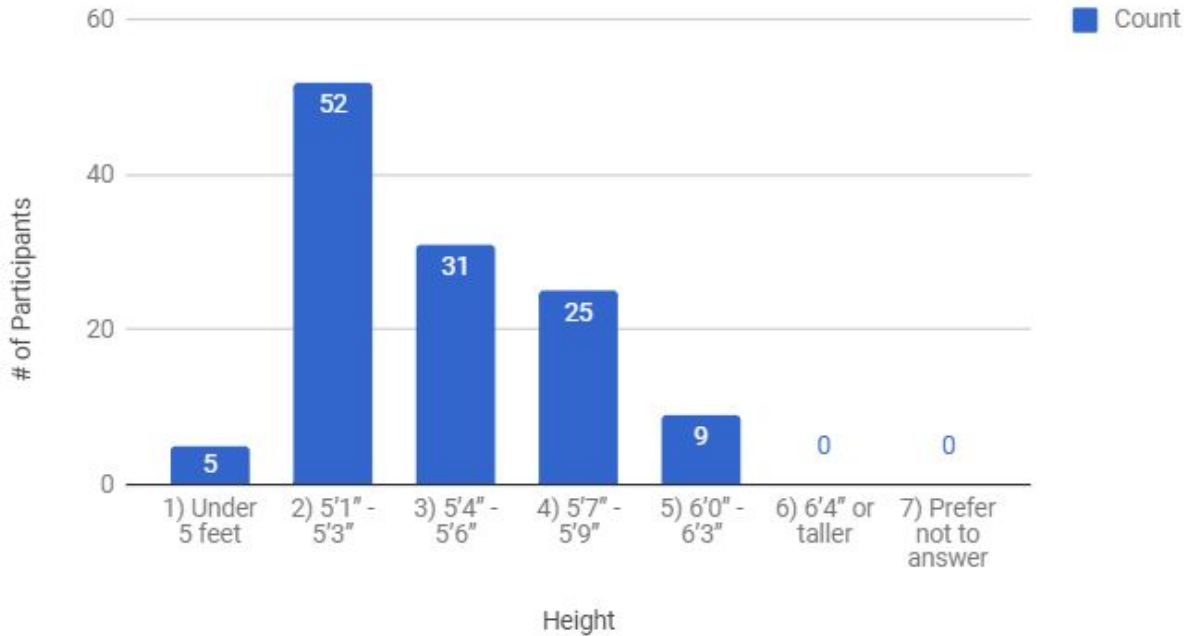


Table 6

6. On a scale of 1-5, how well can you cook with 1 being not so well and 5 being a great cook?

(1) 1 (2) 2 (3) 3 (4) 4 (5) 5 (6) Can't Cook

6) On a scale of 1-5, how well can you cook with 1 being not so well and 5 being a great cook?	Count	Percentage
1)1	18	14.75%
2)2	30	24.59%
3)3	30	24.59%
4)4	21	17.21%
5)5	10	8.20%

6) Can't Cook	13	10.66%
Total	122	100.00%

6) On a scale of 1-5, how well can you cook with 1 being not so well and 5 being a great cook?

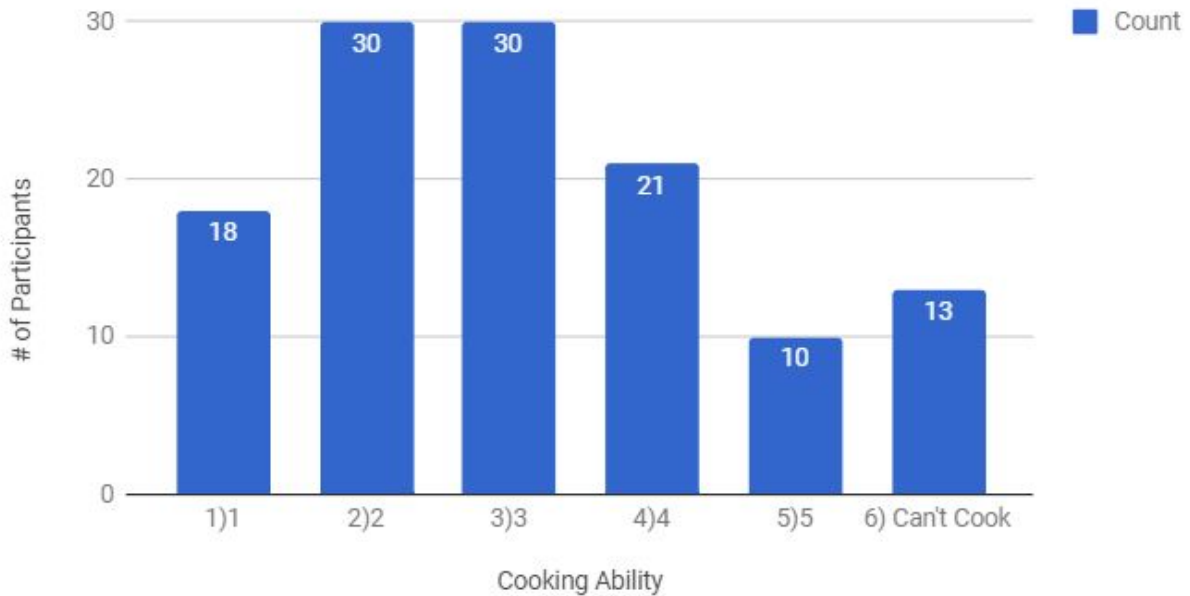


Table 7

7.How often do you cook for yourself on a weekly basis?

(1) Never (2) 1-2 times (3) 3-4 times (4) 5-6 times (5) Everyday

7)How often do you cook for yourself on a weekly basis?	Count	Percentage
1) Never	38	31.15%
2) 1-2 Times	40	32.79%
3) 3-4 Times	20	16.39%
4) 5-6 Times	10	8.20%

5) Everyday	14	11.48%
Total	122	100.00%

7)How often do you cook for yourself on a weekly basis?

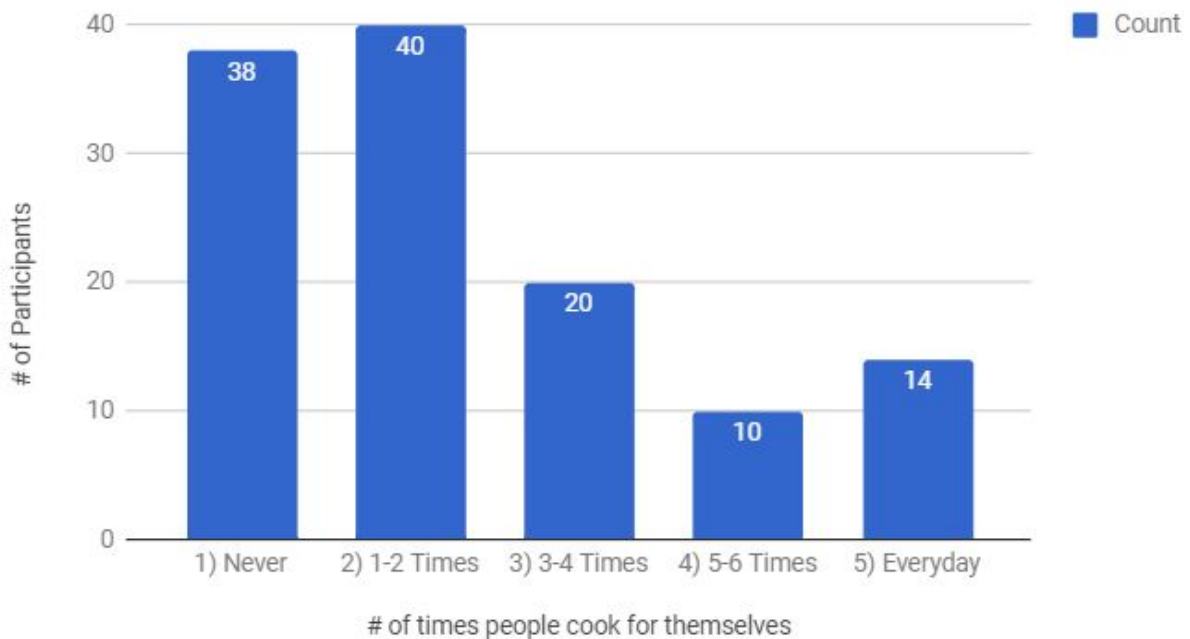


Table 8

8.Does your school offer home economics class or a class related to cooking or nutrition? (Family and Consumer Science,Nutrition class, Cooking class, Home Ecology)

(1) Yes (2) No (3) Unsure

8)Does your school offer home economics class or a class related to cooking or nutrition? (Family and Consumer Science,Nutrition class, Cooking class, Home Ecology)	Count	Percentage
--	-------	------------

1) Yes	23	18.85%
2) No	57	46.72%
3) Unsure	42	34.43%
Total	122	100.00%

8) Does your school offer home economics class or a class related to cooking or nutrition? (Family and Consumer Scienc...

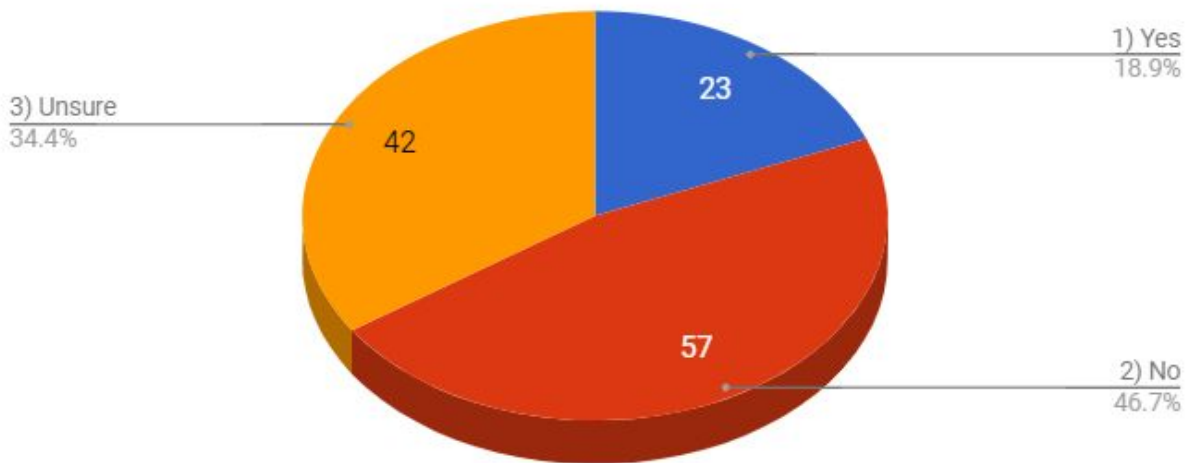


Table 9

9. Have you taken at least one of these classes before?

- | | | |
|-------------------------|----------------------------|---------------------------------|
| (1) Home Economics | (2) Home Ecology | (3) Family and Consumer Science |
| (4) A Nutrition class | (5) Culinary/cooking class | (6) One or more of the choices |
| (7) Other similar class | (8) None | |

9)Have you taken at least one of these classes before?	Count	Percentage
1) Home Economics	7	5.74%
2) Home Ecology	0	0.00%
3) Family and Consumer Science	0	0.00%
4) A Nutrition class	15	12.30%
5) Culinary/cooking class	9	7.38%
6) One or more of the choices	5	4.10%
7) Other	1	0.82%
8) None	85	69.67%
Total	122	100.00%

9)Have you taken at least one of these classes before?

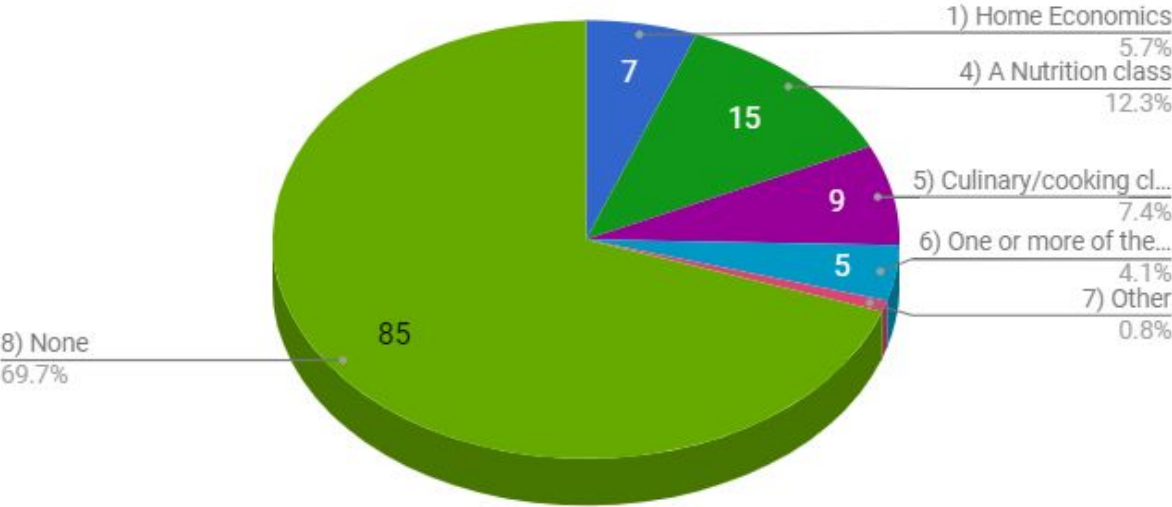


Table 10

10.Home economics can help prepare young adults to become self sufficient (being able to take care of yourself like making your own food)

(1) Strongly agree (2) Agree (3) Neutral (4) Disagree (6) Strongly disagree
 (7) Unsure

10)Home economics can help prepare young adults to become self sufficient (being able to take care of yourself like making your own food)	Count	Percentage
1) Strongly agree	39	31.97%
2) Agree	62	50.82%
3) Neutral	9	7.38%
4) Disagree	1	0.82%
5) Strongly disagree	1	0.82%
6) Unsure	10	8.20%
Total	122	100.00%

10)Home economics can help prepare young adults to become self sufficient (being able to take care of yourself like making...

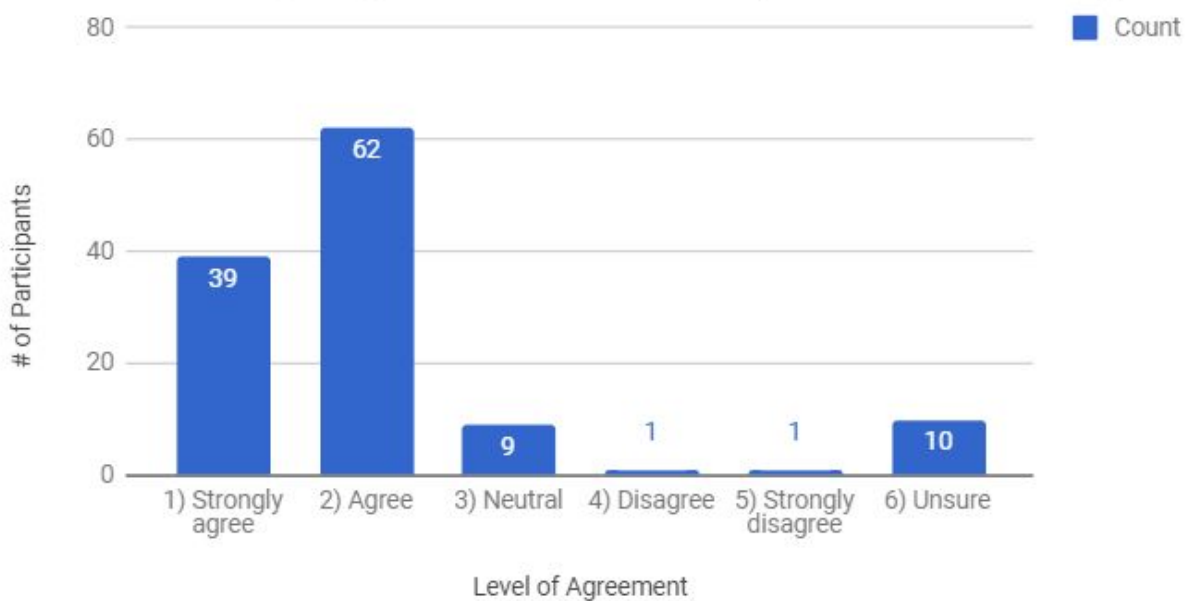


Table 11

11. Every student should know how to prepare healthy meals for themselves.

(1) Strongly agree (2) Agree (3) Neutral (4) Disagree (6) Strongly disagree
(7) Unsure

11) Every student should know how to prepare healthy meals for themselves.	Count	Percentage
1) Strongly agree	46	37.70%
2) Agree	58	47.54%
3) Neutral	8	6.56%
4) Disagree	3	2.46%
5) Strongly disagree	7	5.74%
6) Unsure	0	0.00%
Total	122	100.00%

11) Every student should know how to prepare healthy meals for themselves.

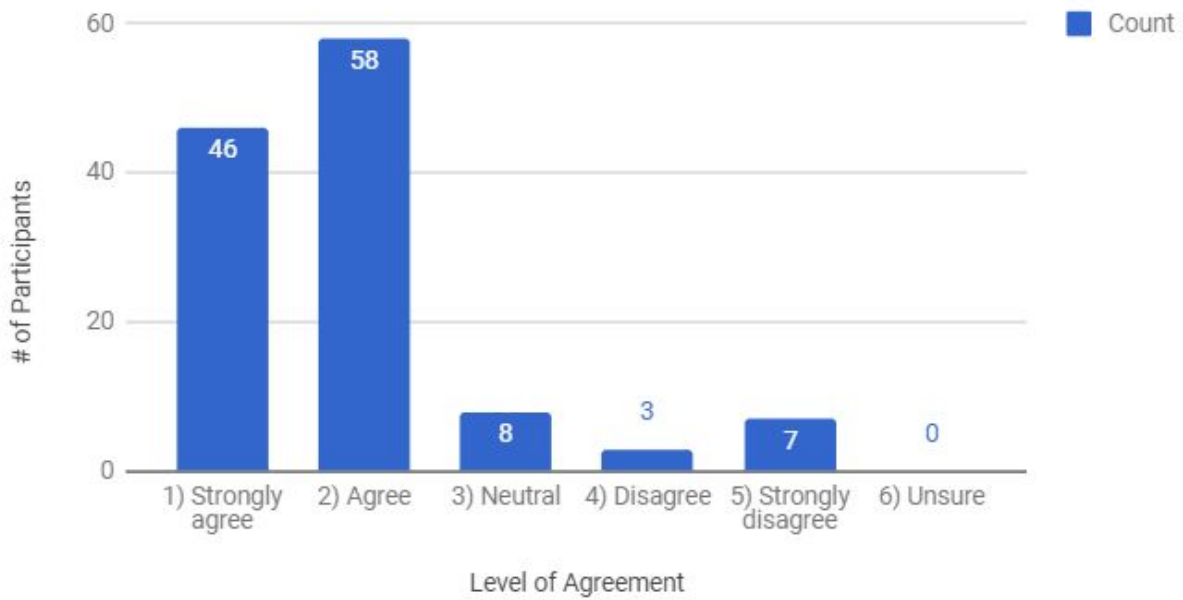


Table 12

12.How often do you eat fast foods on a weekly basis?

(1) 1-2 times (2) 3-4 times (3) 5-6 times (4) Everyday (5) Never

12) How often do you eat fast foods on a weekly basis?	Count	Percentage
1) 1-2 Times	63	51.64%
2) 3-4 Times	29	23.77%
3) 5-6 Times	2	1.64%
4) Everyday	2	1.64%
5)Never	26	21.31%
Total	122	100.00%

12) How often do you eat fast foods on a weekly basis?

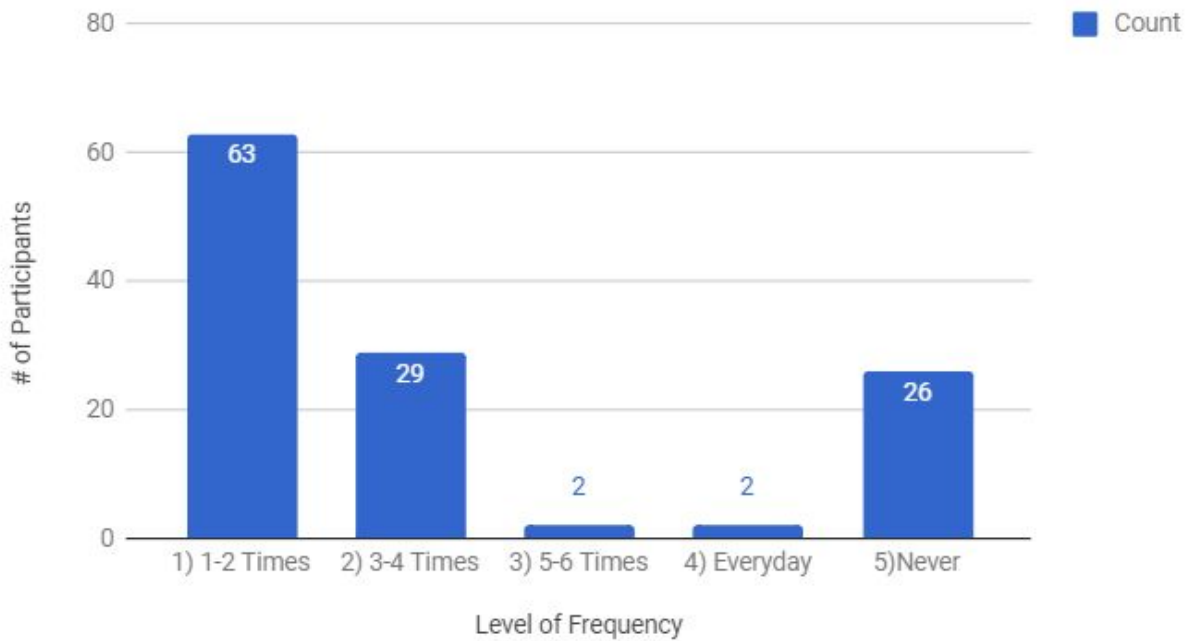


Table 13

13. How often do you skip a meal on a weekly basis?

(1) 1-2 times (2) 3-4 times (3) 5-6 times (4) Everyday (5) Never

13) How often do you skip a meal on a weekly basis?	Count	Percentage
1) 1-2 Times	58	47.54%
2) 3-4 Times	20	16.39%
3) 5-6 Times	10	8.20%
4) Everyday	15	12.30%
5)Never	19	15.57%
Total	122	100.00%

13) How often do you skip a meal on a weekly basis?

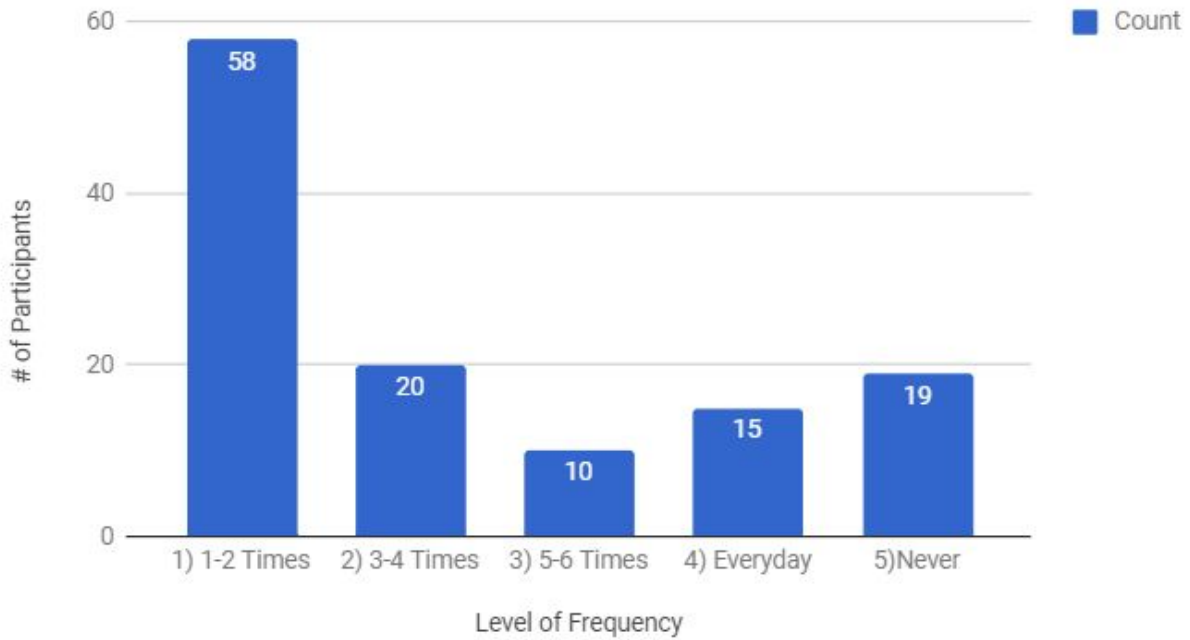


Table 14

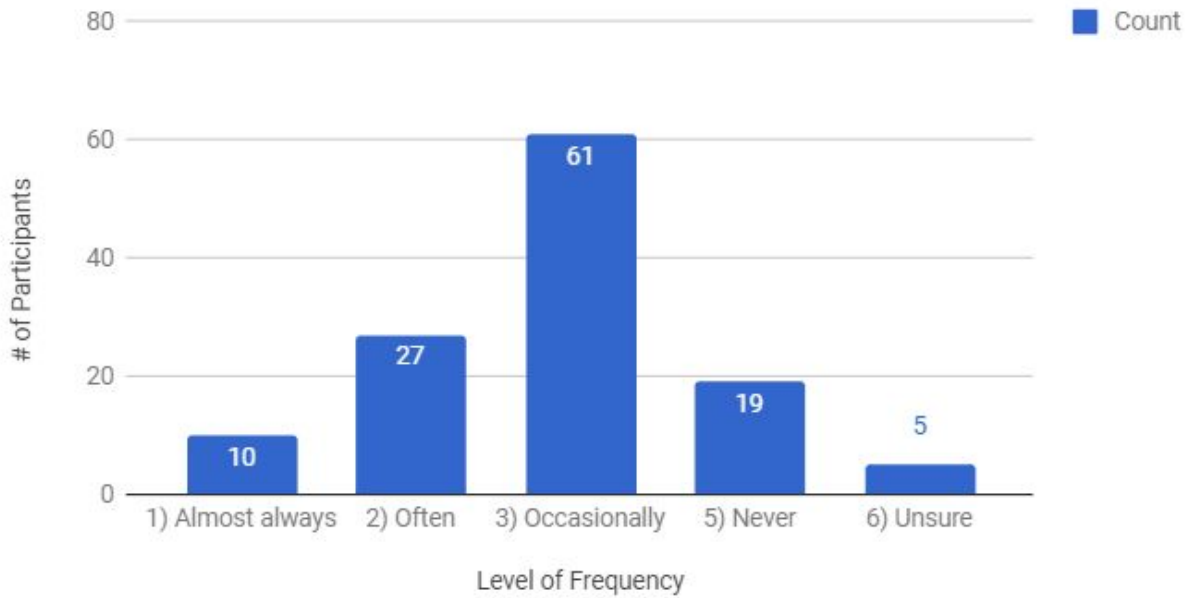
14. When buying or eating food do you take into account its nutritional value?

(1) Almost always (2) Often (3) Occasionally (5) Never (6) Unsure

14) When buying or eating food do you take into account its nutritional value?	Count	Percentage
1) Almost always	10	8.20%
2) Often	27	22.13%
3) Occasionally	61	50.00%
5) Never	19	15.57%

6) Unsure	5	4.10%
Total	122	100.00%

14) When buying or eating food do you take into account its nutritional value?

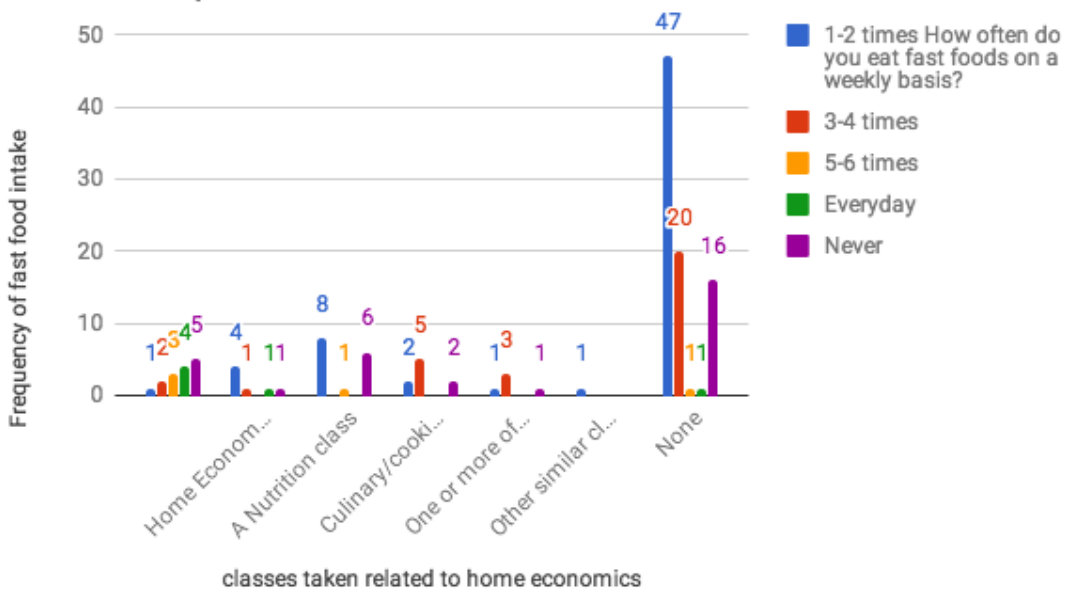


Appendix D: Pivot Tables

Pivot Table One

		1-2 times	3-4 times	5-6 times	Everyday	Never	
	<i>COUNTA of Have you taken at least one of these classes before?</i>	<i>How often do you eat fast foods on a weekly basis?</i>					
	<i>Have you taken at least one of these classes before?</i>						Grand Total
Home Economics	1	4	1		1	1	7
A Nutrition class	4	8		1		6	15
Culinary/cooking class	5	2	5			2	9
One or more of the choices	6	1	3			1	5
Other similar class	7	1					1
None	8	47	20	1	1	16	85

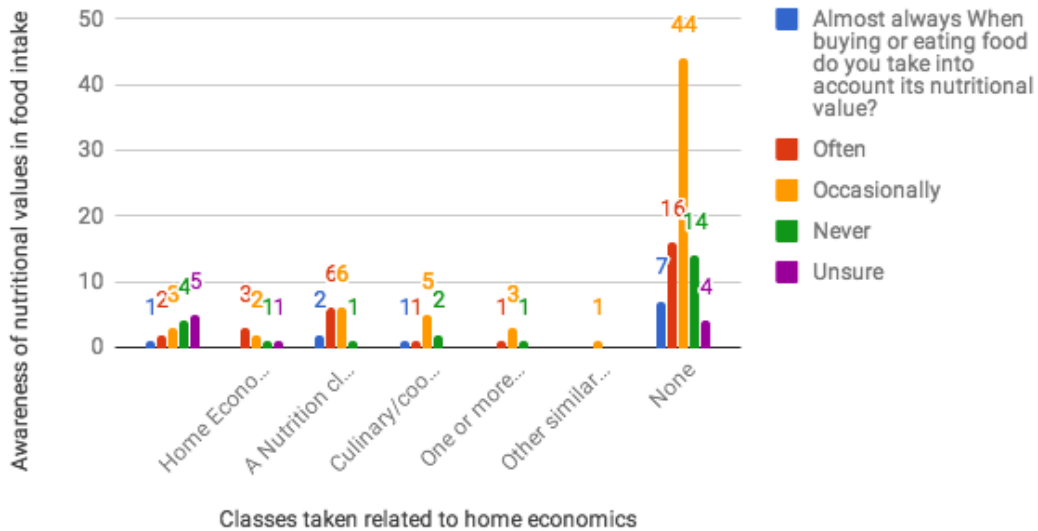
Relationship between Classes taken and Fast food Eaten



Pivot Table Two

		Almost always	Often	Occasionally	Never	Unsure	
	<i>COUNTA of Have you taken at least one of these classes before?</i>	<i>When buying or eating food do you take into account its nutritional value?</i>					
	<i>Have you taken at least one of these classes before?</i>						
		1	2	3	4	5	Grand Total
Home Economics	1		3	2	1	1	7
A Nutrition class	4	2	6	6	1		15
Culinary/cooking class	5	1	1	5	2		9
One or more of the choices	6		1	3	1		5
Other similar class	7			1			1
None	8	7	16	44	14	4	85
	Grand Total	10	27	61	19	5	122

When buying or eating food do you take into account its nutritional value?

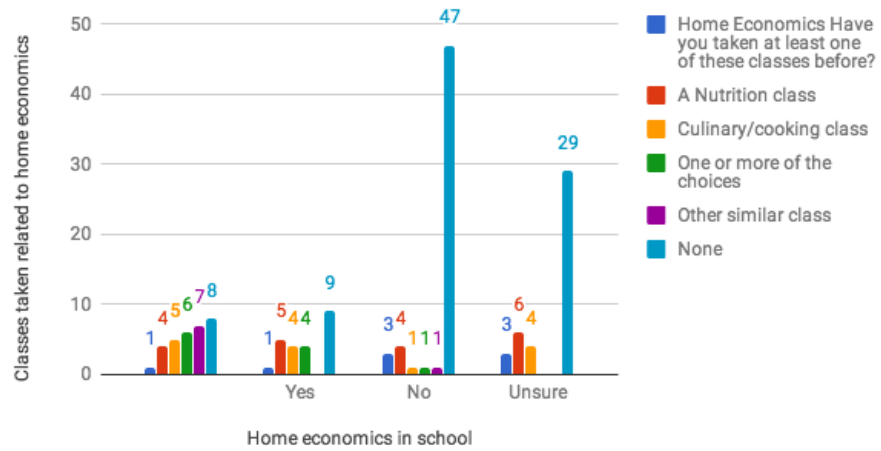


Pivot Table Three

		Home Economics	A Nutrition class	Culinary/cooking class	One or more of the choices	Other similar class	None	
	<i>COUNTA of Does your school offer home economics class or a class related to cooking or nutrition? (Family and Consumer Science, Nutrition class, Cooking class, Home Ecology)</i>							
	<i>Have you taken at least one of these classes before?</i>							
	<i>Does your school offer home economics class or a class related to cooking or nutrition? (Family and Consumer Science, Nutrition class, Cooking class, Home Ecology)</i>							
		1	4	5	6	7	8	Grand Total

Yes	1	1	5	4	4		9	23
No	2	3	4	1	1	1	47	57
Unsure	3	3	6	4			29	42
Grand Total		7	15	9	5	1	85	122

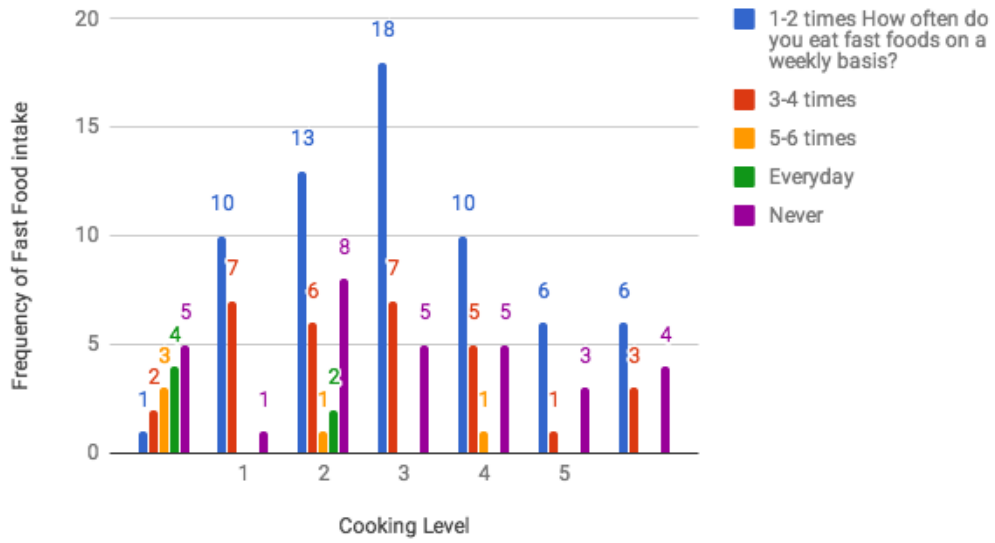
Relationship between home economics in schools and classes taken



Pivot Table Four

		1-2 times	3-4 times	5-6 times	Everyday	Never	
	<i>COUNTA of On a scale of 1-5, how well can you cook with 1 being not so well and 5 being a great cook?</i>	<i>How often do you eat fast foods on a weekly basis?</i>					
	<i>On a scale of 1-5, how well can you cook with 1 being not so well and 5 being a great cook?</i>						Grand Total
		1	2	3	4	5	
1	1	10	7			1	18
2	2	13	6	1	2	8	30
3	3	18	7			5	30
4	4	10	5	1		5	21
5	5	6	1			3	10
Can't Cook	6	6	3			4	13
	Grand Total	63	29	2	2	26	122

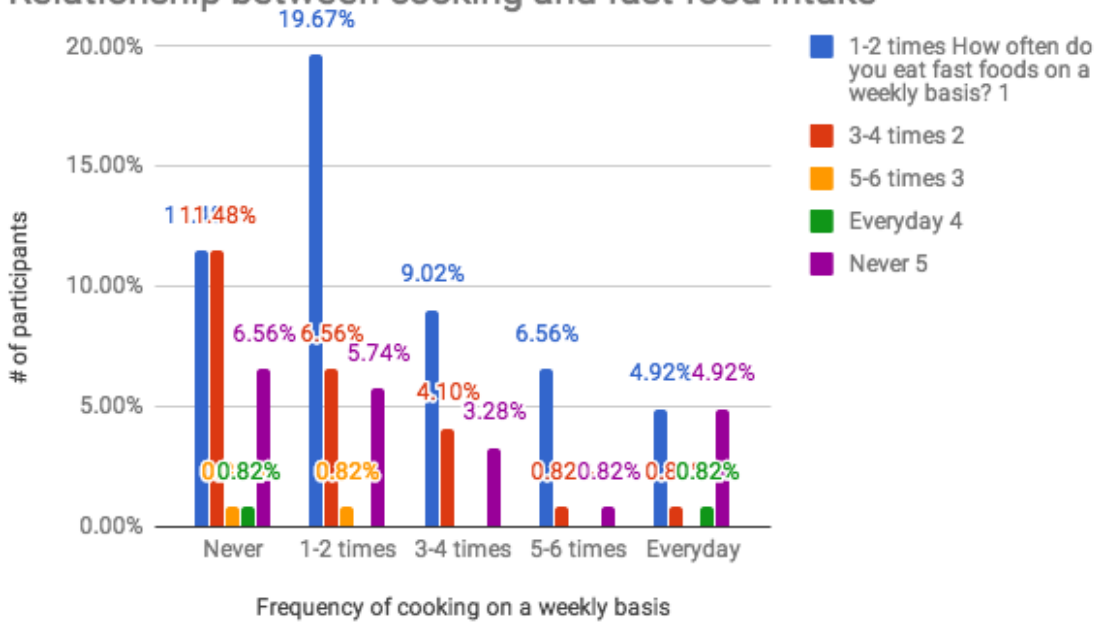
Relationship between cooking level and fast food intake



Pivot Table Five

		1-2 times	3-4 times	5-6 times	Everyday	Never	
	<i>COUNTA of</i> <i>How often do you cook for yourself on a weekly basis?</i>	<i>How often do you eat fast foods on a weekly basis?</i>					
	<i>How often do you cook for yourself on a weekly basis?</i>						Grand Total
		1	2	3	4	5	
Never	1	11.48%	11.48%	0.82%	0.82%	6.56%	31.15%
1-2 times	2	19.67%	6.56%	0.82%		5.74%	32.79%
3-4 times	3	9.02%	4.10%			3.28%	16.39%
5-6 times	4	6.56%	0.82%			0.82%	8.20%
Everyday	5	4.92%	0.82%		0.82%	4.92%	11.48%
	Grand Total	51.64%	23.77%	1.64%	1.64%	21.31%	100.00%

Relationship between cooking and fast food intake



Appendix E: E-Mail to AP of English, ESL, Music and Art

Tue, Apr 17, 2018 at 2:10 PM

[Frank Lu](mailto:frankl4510@hstat.org)

<frankl4510@hstat.org>

To: Boulay Jeanine <jboulay@hstat.org>

Cc: Lipari Marco <mlipari@hstat.org>

Dear Mr. Boulay

My name is Frank Lu and I am currently a senior attending the High School of Telecommunication Arts and Technology. I have been working on a research paper that is sponsored by the Wise Foundation regarding the lack of home economics affecting the quality of life of the community in New York City. To combat the lack of home economics classes or the lack of awareness in that subject, I have developed a solution that involves making a unit within our health classes dedicated to teaching essential key points in home economics. This will help teens who attend the High School of Telecommunication Arts and Technology learn about nutrition and how to cook. The unit will teach the students to be aware of their current health, like their diets or awareness of nutrition in food, and will enable them to cook for themselves leading to a self sufficient adolescent. I hope to hear your response to this email. Thank you for your time!

Sincerely,

Frank Lu

Appendix F: Email to NYSAFCS

Tue, Apr 17, 2018 at 10:39 PM

Frank Lu

<frankl4510@hstat.or

>

To: Kimberly DeHart <dehartk.facs@gmail.com>


Cc: Lipari Marco <mlipari@hstat.org>

Ms. DeHart :

I am a student at High School of Telecommunication Arts and Technology, researching the issue of home economics not being as present as it should be in New York City. Home economics classes are being offered as electives within high schools, but many students are unaware that their own school does not have any classes related to it. Being able to learn how to cook, and taking care of themselves to become responsible adults is what students should be learning how to do, yet many are not doing so. To increase awareness of the issue, I have already created a website to inform people of what home economics is and its importance. Also, within my school I am working on replacing a unit within our Health classes to teach home economics instead. The unit that will be taught will cover general teachings of home economics and will emphasize on the nutrition, and cooking sections. For this reason, I have reached out to your organization in hopes that you will be able to provide a teacher capable of being a guest speaker during this unit within our school grounds. To ensure that the students gain knowledge from a professional, I think it would be wise for someone within your organization to plan the subjects being taught and speak with our teacher in regards to the contents of the unit. Please consider this plan in teaching students within our school and it would be nice to hear your feedback of this implementation.


Appendix G: Screenshots of Website

HOME EC HOME STATISTICS / TIPS ABOUT US



MISSION

The mission for Home EC is to raise awareness of the beneficial impact that home economic classes can bring to students and adolescents.

POWERED BY 

HOME EC HOME STATISTICS / TIPS ABOUT US

To try bringing attention to home economic classes, a unit within a health class will be dedicated to teaching home economics to students in the high school of Telecommunications of Arts and Technology.

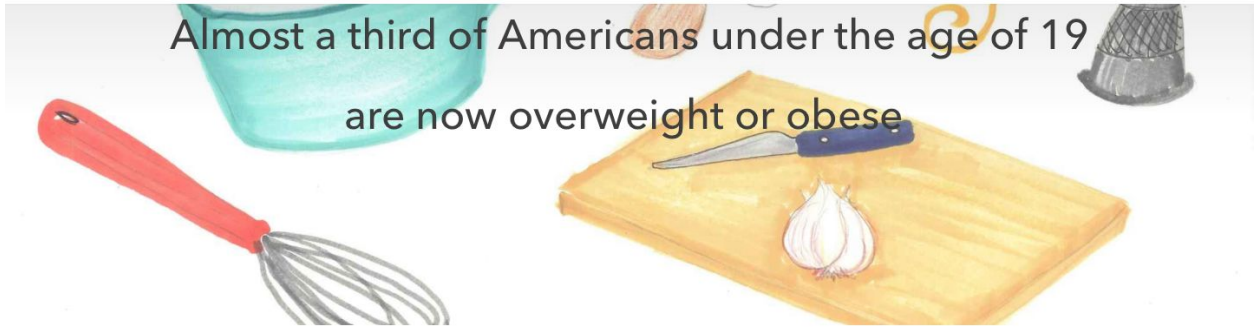
ORGANIZATIONS

There are a few organizations which also exist to bring awareness of the importance of home economics classes in adolescent lives.

Check out their website for more information.



POWERED BY 



Almost a third of Americans under the age of 19 are now overweight or obese

Home economics, also known as consumer science or a domestic science class, is a program in the school curricula that teaches students how to cook and manage their own homes and lives.

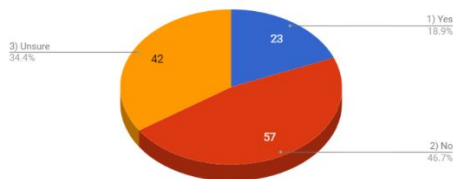
Home economics was founded by the president of the American Home Economics Association, Ellen Swallow Richards. She was a chemist at Massachusetts Institute of Technology and created the program for school curricula so that men and women would learn how to manage a home together.



DATA

To see if home economics was needed, I gathered information on people's opinions by conducting a survey in several locations. My population of interest was high school students and older so in order to select where I was going to conduct the research, I used a cluster sampling where I chose five locations through a randomizer. I had a list of 12 places in New York City and assigned each one with a number. Through the randomizer, the five locations chosen were Fort Hamilton High School, Cooper Union, Union Square Park, 86th street, and High School of Telecommunications. During the field research period, 125 surveys were handed out, but three were invalidated due to in-completion. The analysis of the data is to be based on a 95 percent confidence level and the confidence interval of a 122 sample size taken from a population of 352,000 New York City citizens in the areas chosen, is +/-8.87.

8) Does your school offer home economics class or a class related to cooking or nutrition? (Family and Consumer Scienc...



From the field research I conducted, I asked the question about whether people knew if their school offered a class similar to home economics or not. I found out that only 18.9% of the sample of 122 knew they had home economics, nutrition, or cooking classes in their schools. 80.1% of participants never had a chance to take those classes in their school, or they were unsure whether it was offered or not.



en at least one of these classes before?

In the chart on the left about which class participants have taken, the options were Home Economics, Home Ecology, Family and



POWERED BY 

This website was created by a student who wants to increase the awareness of home economics and improve

HOME EC

HOME STATISTICS / TIPS **ABOUT US**

future. In addition, the goal for this website is to encourage students to take these classes which are offered in some schools as electives.

Contact Us

** INDICATES REQUIRED FIELD*

NAME *

EMAIL *

COMMENT *

POWERED BY 

EMAIL ADDRESS

Available upon request and intent.

TELEPHONE NUMBER

Available upon request and intent.

PHYSICAL ADDRESS

Available upon request and intent.





Start Learning Today

To start taking care of your own life you can do so with the help of other resources. Below will be links to different websites which will contain nutrition apps, and various recipes to help you cook and eat healthily. There will be tutorials for you to start learning how to cook and by doing so, you will be able to make your self a decent healthy meal.

Helpful Links

