

# Food Choices, Motivation, & Well-being

*a research study of  
young adults ages  
18 to 30*

# TABLE OF CONTENTS

- Introduction • 4–5
- Demographics • 6–11
- Eating Habits & Behaviors • 12–25
- Accessibility • 26–39
- Motivation & Deterrents • 40–51
- Well-Being • 52–63
- College Students • 64–81
- Conclusion • 82–85
- Note • 86–87
- References • 88–91

# INTRODUCTION

## INTRODUCTION

The ages between 18 and 30 come with many significant life changes, stressors, and challenges, including but not limited to the transition from high school to college or trade school, living in a college dorm or in an apartment away from family, starting a full-time job in a new place, working, while attending school, and more. During these situations, eating habits and patterns often shift due to inaccessibility of healthy foods, lack of motivation to eat healthy foods, and the difficulty financial constraints of eating a healthy diet, among many others. All of these situations can contribute to eating habits that are not always healthy, often influencing the individual's overall well-being.

Poor nutrition and obesity are some of the biggest health problems facing society today. There are many different predictors of obesity, such as genetics, physical activity, and food consumption. Food selection is an important factor with many long-term consequences (Deshpande et. al, 2009).

The goal of this study was to get a general sense of the eating habits, motivation to eat healthy, and overall well-being of individuals aged 18 to 30.

## METHODS

This study was conducted through an online survey platform, and it was distributed through various social media websites to participants. 146 individuals participat-

ed in total, but all participants did not answer every question. The sample size for each question varies, and the number of respondents who answered each question is noted.

To measure food choices, a scale was adapted from Steptoe, Pollard, & Wardle's (1995) Food Choices Questionnaire (FCQ). To measure health motivation, a scale was adapted from Min's (2015) College Students Health Motivation Questionnaire (CSHM-Q). To measure well-being, a scale was adapted from Bericat's (2013) Socio-emotional Well-Being Index (SEWBI).

# DEMOGRAPHICS

## PARTICIPANTS

The majority of participants (82%, n=120) identified as female. 87% (n=130) identified their race/ethnicity as white or Caucasian. 73% (n=107) responded as living in the Northeast region of the United States of America. These three demographic reports show that a fairly homogeneous sample group is being represented in this data, which may have had an effect on the results.

All participants ranged in age from 18 to 30 years old, in order to collect data from a sample of young adults. This age range involves many significant life changes and challenges, all of which may contribute to the subjects being studied including food

choices, motivation, and well-being. The mean age was 23.5 years old. The majority of participants are not in school at all (60%, n=88). 40% (n=58) are either full-time or part-time students.

Of the participants that work, 51% (n=74) work full-time and 29% (n=42) work part-time.

Of the 54 (37%) participants who are full-time students, 2% (n=1) also work full-time, 57% (n=31) also work part-time, and 41% (n=22) do not work. Of the students who are not in school, 81% (n=71) work full-time, 10% (n=9) work part-time, and 9% (n=8) do not work. The overlap between school and work was important to note because of the various challenges that come

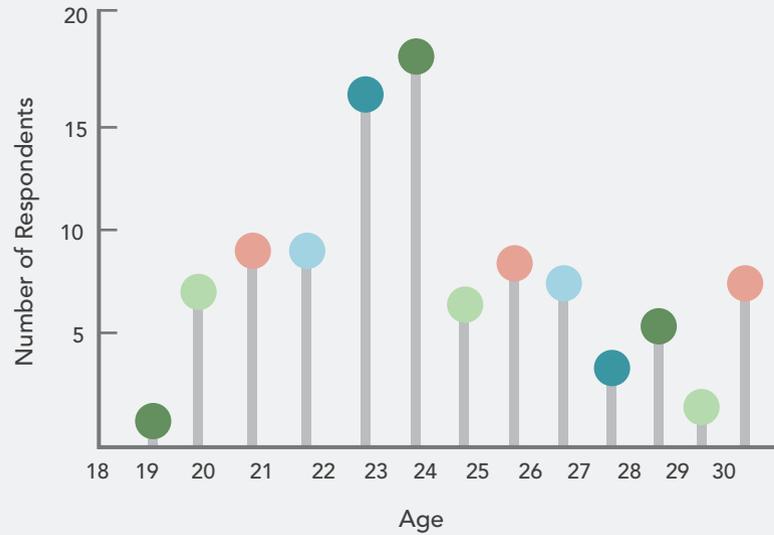
with being in school and/or working, which include financial constraints, time limits, and living situation and location.

47% (n=68) of participants live in a small city or town, 21% (n=31) live in a suburb near a large city, 21% (n=30) live in a large city, and 12% (n=17) live in a rural area. 44% (n=64) live in a house, 42% (n=61) live in an apartment, 12% (n=18) live in a college dorm.

Many of the factors explored in this section have been found to influence different areas of food habits, including consumption, availability and accessibility, and price of healthy foods in previous research.

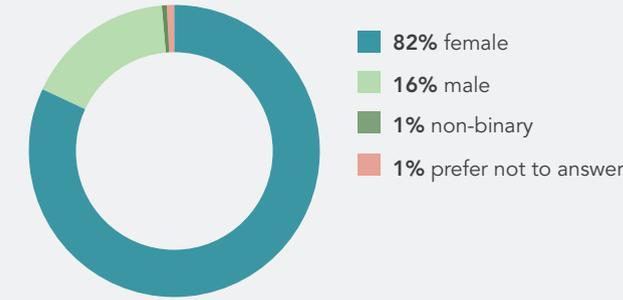
## Age

n= 109



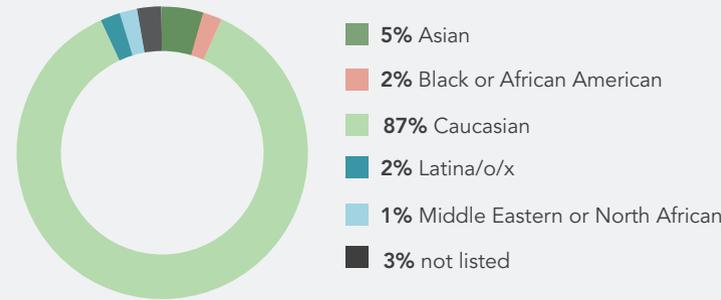
## Gender

n= 146



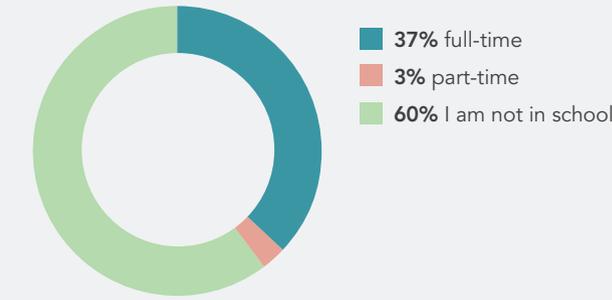
## Race/ Ethnicity

n= 146



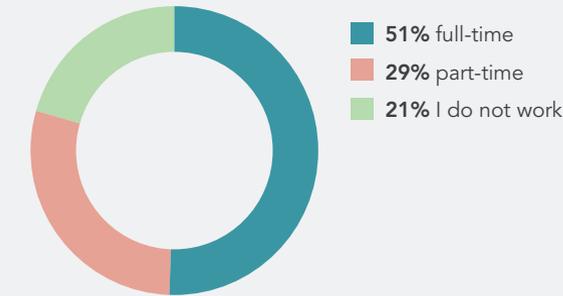
## I Attend School...

n= 146



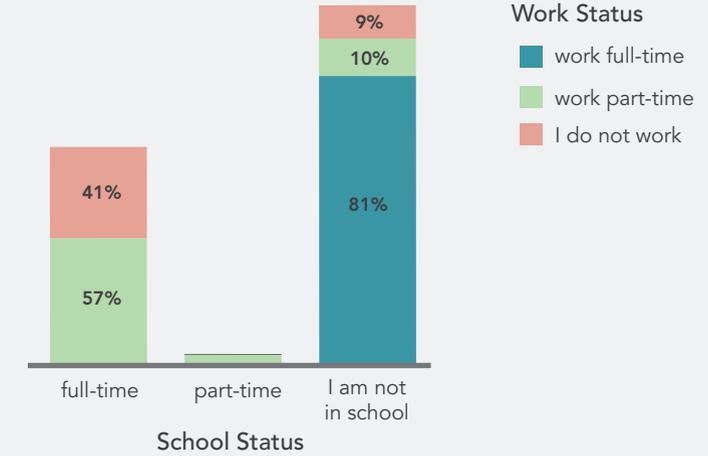
## I Work...

n= 146



## Student & Work Status

n= 146



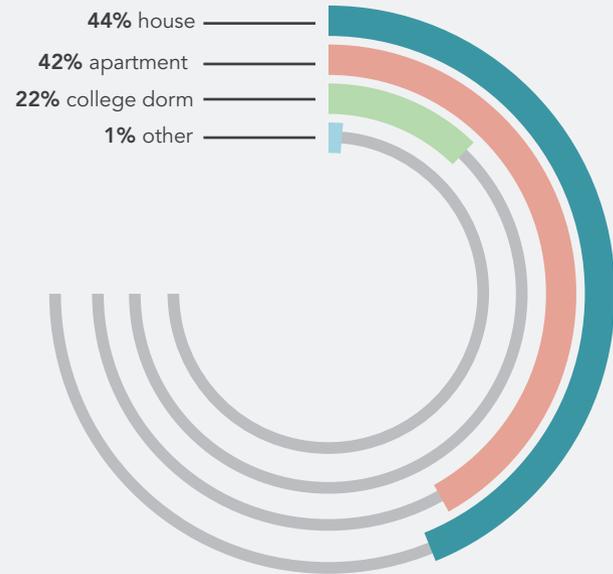
## Highest Level of Education

n= 145



### Where do you currently live?

n= 145



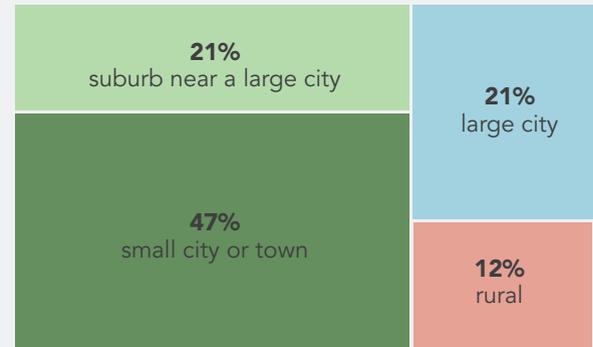
### Who do you live with?

n= 145



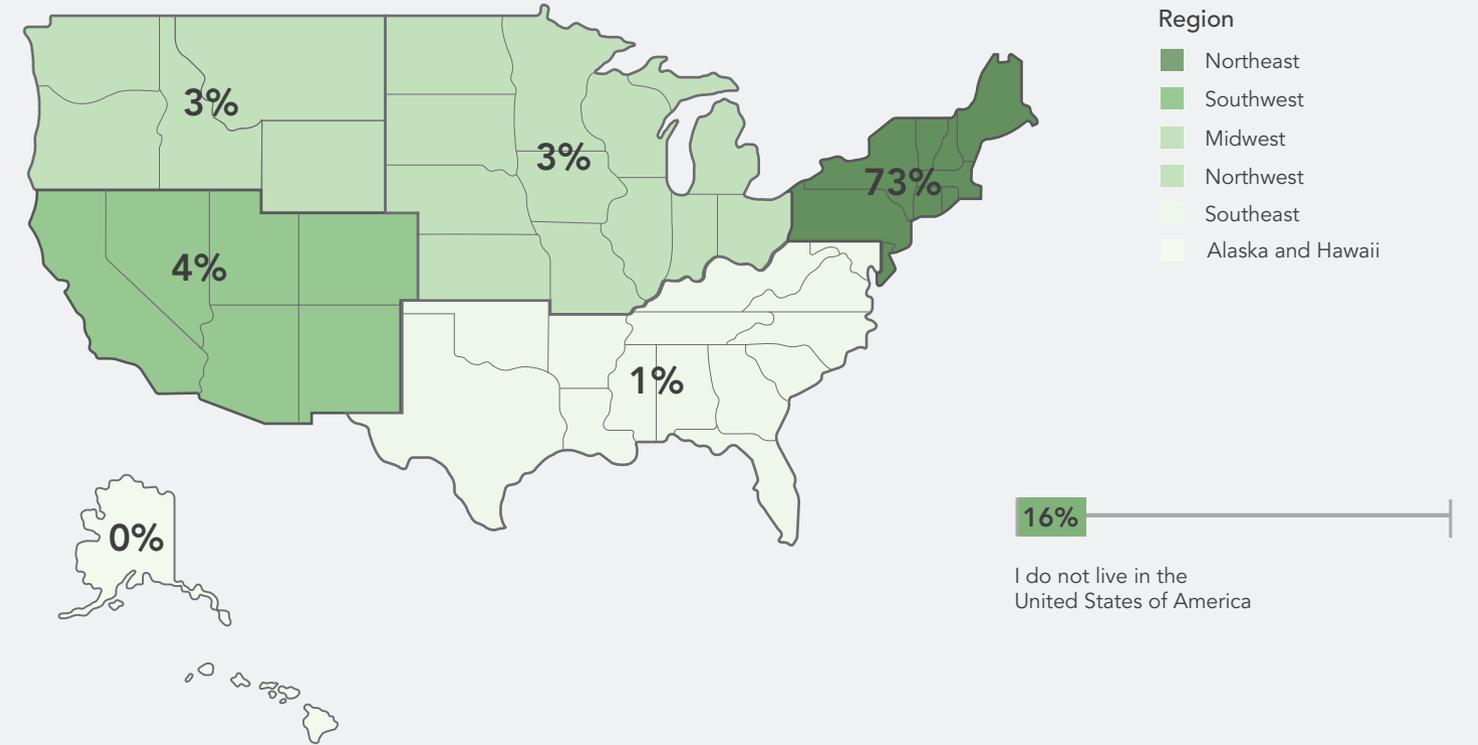
### What type of community do you live in?

n= 145



### Region

n= 145



# EATING HABITS & BEHAVIORS

## OVERVIEW

It is well-known that a healthy diet is crucial for overall health and well-being. A poor diet can be associated with short-term and long-term health problems, and may increase the risk for certain health problems.

## RECENT RESEARCH

According to the U.S. Department of Health and Human Services, the typical eating patterns of many people in the United States are not in line with the dietary guidelines. About  $\frac{3}{4}$  of the population eats low amounts of vegetables, fruits, dairy, and oils, more than  $\frac{1}{2}$  of the population is meeting or exceeding total grain

and total protein recommendations, most exceed the recommendations for added sugars, saturated fats, and sodium, and the eating patterns of many are too high in calories (Dietary, 2019).

## PHYSICAL HEALTH

It has been found that healthy eating patterns are associated with positive health outcomes. There is established and emerging evidence showing that healthy eating patterns are associated with a reduced risk of cardiovascular disease, type 2 diabetes, certain types of cancers, obesity, and some neurocognitive disorders (Dietary, 2019).

## CARDIOVASCULAR DISEASE

Cardiovascular disease is the top cause of death in Western Countries, which represents approximately 30% (17.3 million) of all deaths worldwide. Cardiovascular diseases include a wide range of disorders that affect the heart and blood vessels, including hypertension, stroke, atherosclerosis, peripheral artery disease, and vein diseases. The likelihood of developing a cardiovascular health problem is related to unhealthy dietary patterns, specifically including diets that consist of excessive sodium and processed foods, added sugars, unhealthy fats, in addition to low levels of fruits and vegetables, whole grains, fiber, legumes, fish, and nuts. It has

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been found that healthy diets and lifestyle habits can prevent cardiovascular disease, and evidence suggests that nutrition may be the most important factor to prevent cardiovascular disease-related deaths. (Casas, 2018).

#### **OBESITY**

Unhealthy eating habits have also contributed to the obesity epidemic in the United States. About one third of U.S. adults are obese and about 17% (12.5 million) children and adolescents ages 2-19 are obese. Even among individuals at a healthy weight, a poor diet may be associated with many health risks (HHS, 2017).

Obesity is related to the imbalance between dietary energy intake and the amount of energy that is expended. Humans have evolved to prefer foods that are high in fats, sugars, and calories. In ancestral times, humans hunted and gathered their food, and took advantage of the foods high in energy, which also contained fats and sugars, because these types of foods were hard to come by. In modern times, foods high in fats, sugars, and calories are readily available (Qi, 2014). These types of foods are often less expensive and more easily accessible than fruits, vegetables, whole grains, nuts, or fish. Humans' evolved preference for easily accessible, inexpensive, fatty, sugary foods

allows for easy consumption of them, while healthier foods are often neglected.

#### **CANCER**

The American Institute for Cancer Research and the World Cancer Research Fund has estimated that approximately 30-40% of all cancers can be prevented by lifestyle and dietary behaviors. Low fiber intake, consumption of red meat, and imbalance of omega 3 and omega 6 fats can contribute to a greater risk of cancer, while abundant amounts of fruits, vegetables, specifically allium (onion, garlic, shallots, chives, and leeks) and cruciferous vegetables (broccoli, cauliflower, brussel sprouts, kale, arugula), and flax seed may lower

cancer risk. Specific elements such as selenium, folic acid, vitamin B-12, vitamin D, chlorophyll, and antioxidants are also crucial in an anti-cancer diet. (Donaldson, 2004).

#### **MENTAL HEALTH**

There is growing evidence showing that the type of food being consumed can have a large impact on mental health.

#### **DEPRESSION**

Some research has studied the way a diet that is optimal for brain health, in conjunction with other treatment methods, could help improve symptoms of mental illnesses. An optimal brain health diet may

consist of foods that are rich in omega-3 fatty acids, are anti-inflammatory, support a healthy microbiome, among other things. For example, the Mediterranean diet consists of many foods that are consistent with the characteristics of an optimal brain health diet, including fish, seafood, beans and legumes, leafy greens and other vegetables, olive oil, yogurt, and nuts. (Lachance & Ramsey, 2015).

One study from Francis and colleagues (2019) looked at the way diet can affect depression. A randomized controlled trial found that symptoms of depression dropped significantly among a group of young adults after they followed a Mediterranean diet for three weeks. They also

reported lower levels of anxiety and stress. Depression scores among the control group of participants who did not eat the Mediterranean diet did not change at all. The role of inflammation in the body on depression is also being studied, and highly processed foods, poor diet, and a lack of nutrient-dense foods can increase inflammation in the body (Aubrey & Chatterjee, 2019).

#### **ANXIETY**

The effect of diet on anxiety is also an important area being studied. According to the National Institute of Mental Health, anxiety disorders are the most common mental illness in the United States. 40

million adults (18% of the population) struggle with anxiety. Certain dietary guidelines are often recommended as a potential treatment for anxiety. A diet that is rich in whole grains, vegetables, and fruits, and complex carbohydrates is recommended. Limiting caffeine, alcohol, sugar, and simple carbohydrates, drinking a lot of water, and not skipping meals is also recommended. There is also growing research on the link between gut-brain health, because 95% of serotonin receptors are found in the lining of the gut. This research is focused on the potential of probiotics for treating anxiety, but more research is needed in this area (Naidoo, 2019).

More research is still needed on the effect of diet on mental health, but many studies have been promising, showing positive results.

### **FRUITS AND VEGETABLES**

The 2015–2020 guidelines for fruit and vegetable consumption from the Center for Disease Control and Prevention recommend that adults consume 1.5-2 cups of fruits and 2-3 cups of vegetables per day. According to a 2018 report from the CDC, only 12.2% of adults meet the daily fruit intake recommendation, and only 9.3% of adults meet the daily vegetable intake recommendation. Many factors including

income-related disparities, accessibility, and education on the benefits of eating healthy were found to influence who meets the recommended intake levels for fruits and vegetables (Data, 2019). The CDC acknowledges that a collective effort must be taken in order to increase the level of fruits and vegetables consumed. A combination of education, affordability, and accessibility of healthy foods must be implemented to change behavior related to fruit and vegetable intake.

It is widely known that fruits and vegetables are beneficial to overall health. People who eat more fruits and vegetables have better cardiovascular health, reduced

risk of some cancers, and greater longevity than people who eat fewer fruits and vegetables (Conner et. al, 2017). Fruits and vegetables are also instrumental in providing important vitamins and minerals that are necessary to maintain optimal functioning in the human body, allowing it to fight off disease and illness (Data, 2019).

Evidence in support of the positive effect of fruit and vegetable consumption on mental health is also growing. Higher consumption of fruits and vegetables is correlated with several psychological outcomes such as, a lower incidence of depression and anxiety, greater happiness, higher life satisfaction, and greater

social-emotional well-being or “flourishing (Conner et. al, 2017).”

### **PROBIOTICS**

Healthy gut functioning has been linked to normal central nervous system functioning. Hormones, neurotransmitters, and immunological factors released from the gut send signals to the brain directly or through autonomic neurons. (Clapp et. al, 2017). The beneficial bacteria that is present produces natural antibiotics to prevent diarrhea and infections, and produces some B vitamins. The beneficial bacteria also helps with digestion by providing extra enzymes, can help prevent food allergies, can help prevent cancer

at different stages of development, and it strengthens the immune system in the gut (Donaldson, 2004). Natural sources of probiotics can be found in things such as yogurt, keifer, or sauerkraut.

More research is needed on the use of probiotics for mental illnesses such as anxiety or depressive disorders, and there is not enough evidence to use them as therapy for these conditions.

### **UNNATURAL INGREDIENTS**

Various additives, chemicals, and preservatives are likely to be found in a wide range of foods. Some of the most com-

mon unnatural additives include Bisphe-  
nols, Phthalates, perfluoroalkyl chemicals,  
perchlorate, artificial food colors, nitrates,  
and they can affect hormones, puberty,  
fertility, obesity, cardiovascular disease, the  
immune system, thyroid, ADHD symptoms,  
and the blood's ability to deliver oxygen to  
the body (McCarthy, 2018).

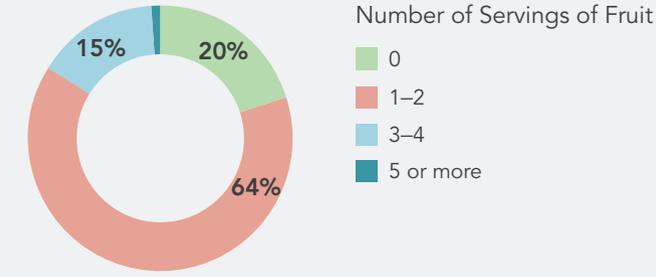
**SUMMARY**

Constant research is being done on the  
effects of a healthy diet on physical and  
mental health, on the prevention and  
treatment of certain diseases and cancers,  
and efforts are being taken to increase  
education on the benefits of eating  
healthy diets.

**Average Daily Fruit Intake**

(1 serving = approx. 150g or ½ cup or 1 whole fruit)

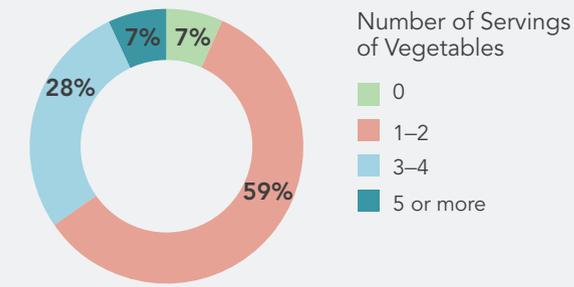
n= 119



**Average Daily Vegetable Intake**

(1 serving = approx. 75g or ½-1 cups)

n= 119



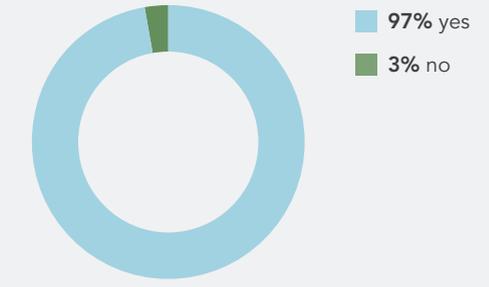
**Water Intake**

n= 119



**Kitchen Access**

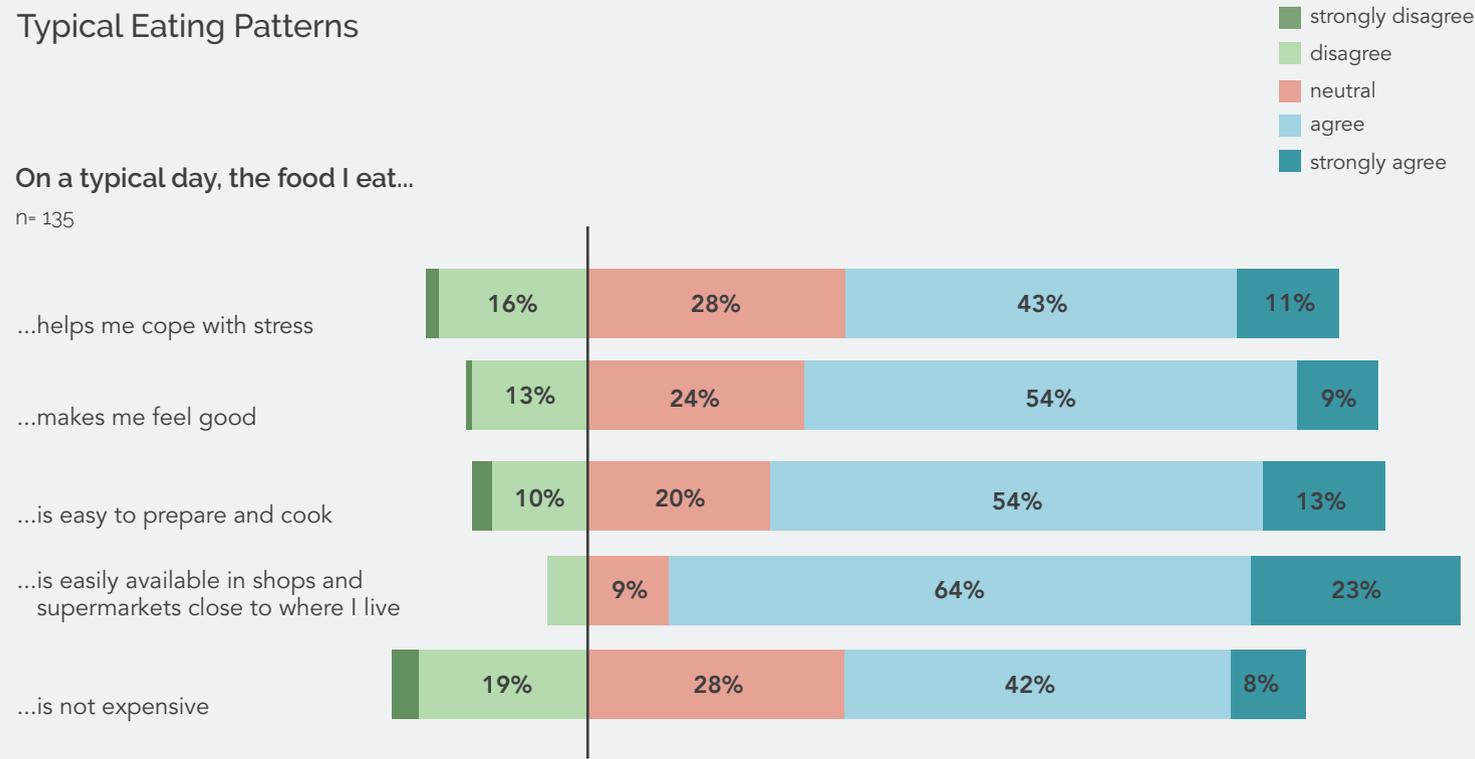
n= 119



## Typical Eating Patterns

### On a typical day, the food I eat...

n= 135



The goal of these questions was to get a general sense of the habits around the type of foods people consume, specific to the emotional response the food they eat elicits, in addition to the ease of obtaining and cooking foods, and the general cost.

Two questions focused on emotional aspects of food found that 53% (n=73) individuals agree or strongly agree that they eat food that helps them cope with stress. 63% (n=85) agree or strongly agree that the food they eat makes them feel good.

Three questions focused on the ease and cost of daily food consumed found that

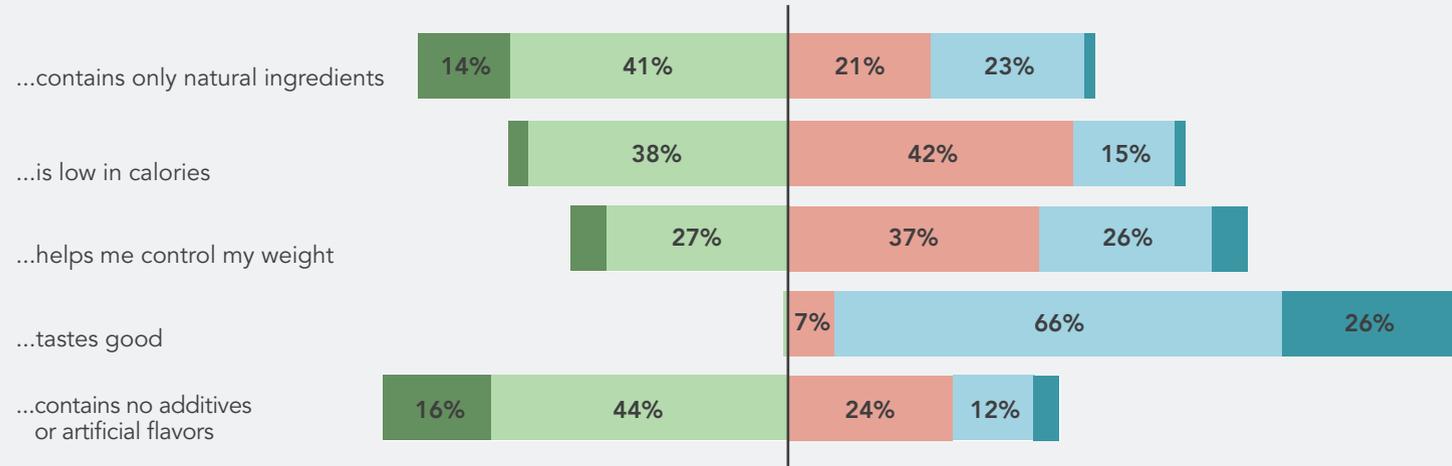
67% (n=91) agree or strongly agree that they eat food that is easy to prepare and cook, 87% (n=117) agree or strongly agree that they eat food that is easily available in supermarkets close to where they live, and 50% (n=68) agree or strongly agree that they food they consume is not expensive.

## Typical Eating Patterns



### On a typical day, the food I eat...

n= 132



These questions continued to explore the typical eating habits of individuals, focusing on the characteristics of the food being eaten, looking at potentially harmful aspects such as prevalence of unnatural additives, in addition to other aspects such as taste and calorie level.

Only 25% (n=32) agreed or strongly agreed that they eat food that contains only natural ingredients, 16% (n=21) agreed or strongly agreed that they eat food that contains no additives or artificial flavors, and 17% (n=22) agreed or strongly agreed that they eat food that is low in calories.

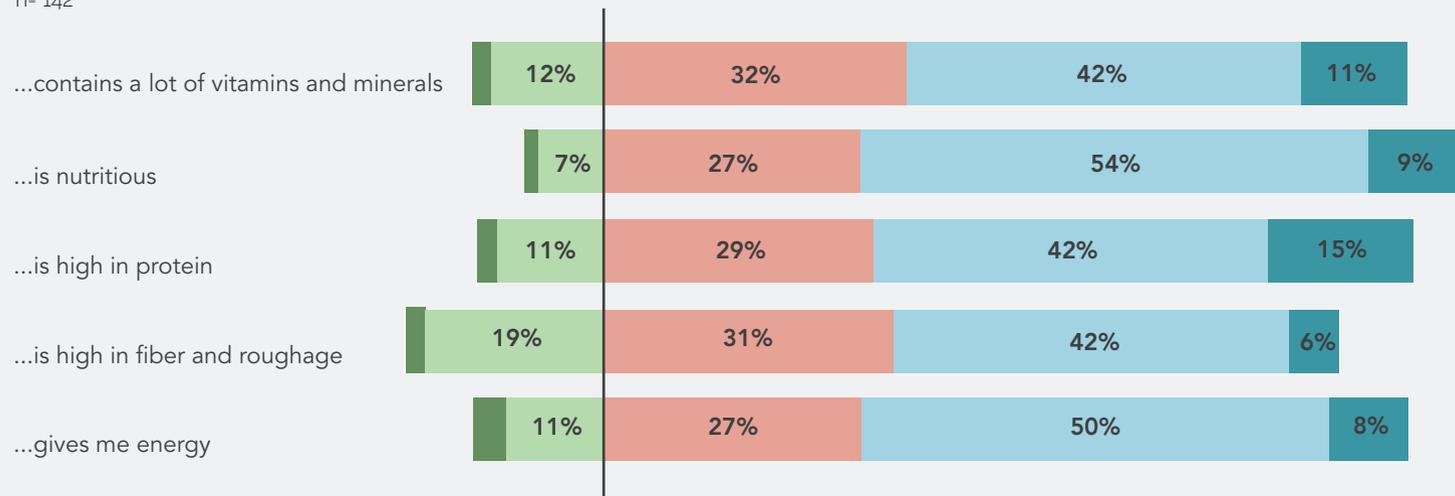
Two questions were asked that focused on a more emotional aspect of the food being consumed found that 92% (n=123) agreed or strongly agreed that they eat food that tastes good, and 31% (n=41) agreed or strongly agreed that they eat food that helps them to control their weight.

## Typical Eating Patterns



### On a typical day, the food I eat...

n= 142



The results of this set of questions found that these respondents generally consume foods that contain important characteristics that contribute to a well-rounded, healthy diet.

53% (n=76) agree or strongly agree that they eat food that contains a lot of vitamins and minerals, 63% (n=91) agree or strongly agree that they eat food that is nutritious, 57% (n=91) agree or strongly agree that they eat food that is high in protein, 48% (n=82) agree or strongly agree that they eat food that is high in fiber and roughage, and 58% (n=68) agree

or strongly agree that they eat food that gives them energy.

All of these questions show that respondents consume food that contain things that are essential to a healthy diet, including vitamins, minerals, protein, fiber, roughage, and which are nutritious and provide energy.

# ACCESSIBILITY

## OVERVIEW

A well-rounded, nutritious diet is crucial for the optimal growth, development, health, and well-being of individuals of any age (Azétsop & Joy, 2013). A large number of people in the United States are affected by food insecurity. Food security refers to, "A situation where all people at all times have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life (Azétsop & Joy, 2013)." Many factors are associated with food accessibility including individual, household, and environmental factors, in addition to socioeconomic status.

## SOCIOECONOMIC STATUS

Diet quality is also affected by age, sex, occupation, education, and income levels, all of which make up socioeconomic status (Darmon & Drewnowski, 2008). Food insecurity, poor diet quality, higher risk of diet-related diseases, and inadequate access to health care are often correlated with low socioeconomic status (Dhillon, 2019).

It has been found that higher-quality diets are associated with greater affluence, while energy-dense diets that are nutrient-poor are often consumed by individuals with lower socioeconomic status and of more limited economic means. It has been found that whole grains, lean meats, fish, low-fat dairy products, and

fresh vegetables and fruit are more likely to be consumed by groups of higher SES, not only in greater quantity, but in greater variety as well. On the other hand, refined grains and added fats have been found to be consumed by groups of lower SES (Darmon & Drewnowski, 2008).

## PRICE OF FOOD

It has been found that food costs are a big barrier to consuming a diet full of nutrient-dense foods, especially by lower income groups. Lean meat, fish, and fresh fruits and vegetables are much more costly than food that contain refined grains, added sugars, and added fats. Low income families often select items in a low-cost

diet that have high levels of energy and that have a long shelf life, often consisting of dry packaged foods. It was reported that choosing healthier foods can cost up to 35%-40% of a low income family's food budget (Darmon & Drewnowski, 2008).

### **ENVIRONMENT**

The type of physical environment that one lives in can greatly affect the types of foods that are accessible. Some studies have found that easy access to supermarkets is associated with a higher intake of fruits and vegetables, even within a low-income group. The quality of food choices was directly influenced by how easy it was to access a supermarket, in addition to the availability and variety of healthy foods

available in stores (Darmon & Drewnowski, 2008).

### **EDUCATION AND CULTURE**

Studies have found that individuals in lower socioeconomic status groups have a lack of nutrition knowledge, cooking skills, and motivation. However, only nutrition knowledge is not enough to initiate changes in eating behaviors. It has also been found that residence, country of origin, and social integration are all important factors that determine diet quality. In the United States, it was found that among low income families with strong social networks were associated with a lower risk of food insecurity (Darmon & Drewnowski, 2008).

### **FOOD DESERTS**

According to the United States Department of Agriculture, a food desert is, "An urban area where at least 33% of its residents are located more than a mile away from a venue offering nutritious foods (Dhillon et.al, 2019)." These areas lack an adequate supply of fresh fruit, vegetables, and other healthy whole foods. In the United States, 23.5 million Americans live in food deserts (School, 2019).

20% of individuals in food deserts have an income at or below the federal poverty level for family size, and the median family income is at or below 80% of the surrounding area's median family income (School, 2019). Individuals who live in these areas

eat more fast and processed foods, and have 7 times the risk of early-life stroke (before the age of 45). These individuals may also have double the risk of heart attack and diabetes, and a substantial portion of individuals in this environment are overweight, pre-diabetic, or fully diabetic. (Fuhrman, 2018).

Living in a food desert can have detrimental effects on health. Of people living in neighborhoods with the lowest availability of healthy food, 55% are less likely to have a good quality diet than people living in ones with greater availability, and of people living in neighborhoods with greater healthy food availability, 45% reduced incidence of diabetes over a five-year period.

In addition, \$71 billion are spent in health care costs due to chronic disease could be saved with healthier eating (School, 2019).

Food prices in food deserts are affected by the type of store and store availability. For example, the price of milk is significantly lower at supermarkets than at limited store services, and the majority of items at smaller stores are priced higher than at supermarkets. Price is a top consideration in deciding where to purchase foods, so this often has a huge effect on the types of foods being purchased.

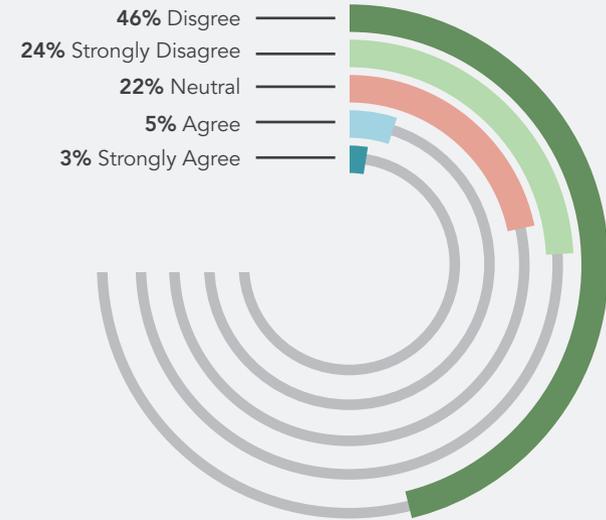
### **SUMMARY**

Many factors affect the types of diets individuals consume, including socioeco-

omic status, food availability and accessibility, environment, and location. The severity of the unequal opportunities for healthy eating is acknowledged, and the American Nutrition Association views food deserts as a national crisis. Many nonprofit organizations and government initiatives are available to provide relief and assistance to those being affected. Some of the organizations involved in improving nutrition in food deserts include the Healthy Food Financing Initiative, the Let's Move! Campaign, Fresh Express, and Twin Cities Mobile Market (School, 2019).

## It is Difficult For me to Obtain Healthy Foods

n= 119



## Students, Workers, & Difficulty Obtaining Healthy Foods



### Students n= 48

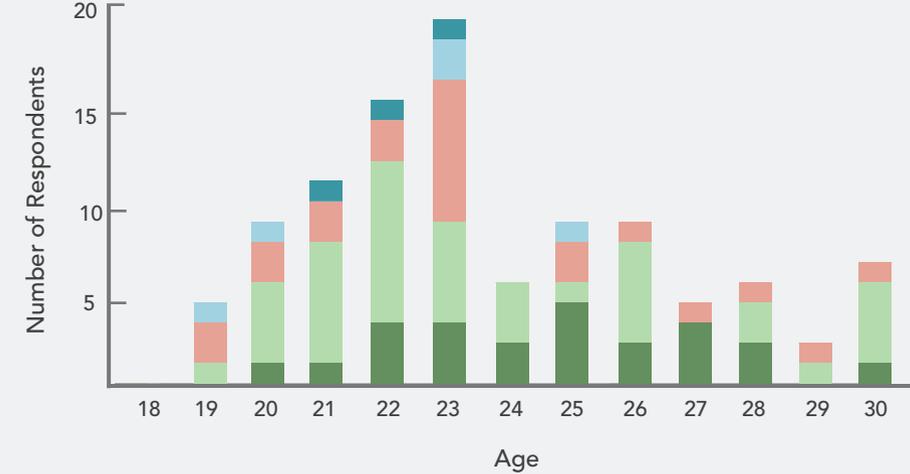


### Workers n= 98



## Age & Difficulty Obtaining Healthy Foods

n= 93



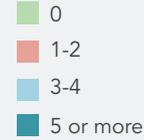
Out of all respondents who answered the question, "It is difficult for me to obtain healthy foods," 70% (n=84) disagreed or strongly disagreed with this statement. Only 8% (n=9) agreed or strongly agreed, and 22% (n=26) answered neutral.

Among the 48 students who answered this question, 13% (n=6) have difficulty obtaining healthy foods, 65% (n=31) do not, and 23% (n=11) answered neutral. Among the 98 people who work, 5% (n=5) have difficulty, 69% (n=68) do not have difficulty, and 26% (n=25) answered neutral.

By age, the most difficulty obtaining healthy foods was among individuals aged 19, 20, 23, and 25 years old. 0% of respondents aged 26 or above agreed or strongly agreed. The least difficulty obtaining healthy food was among individuals aged 22, 24, 26, and 30 years old.

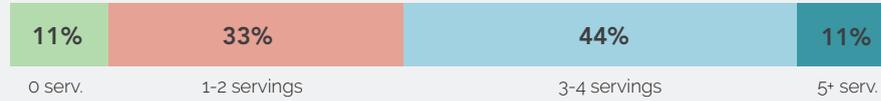
## Difficulty Obtaining Healthy Foods & Eating Behaviors

Number of Servings of Fruit or Vegetables



### Vegetable Intake

Difficulty obtaining healthy foods  
n=9

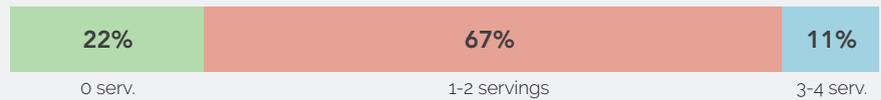


No difficulty obtaining healthy foods  
n= 84

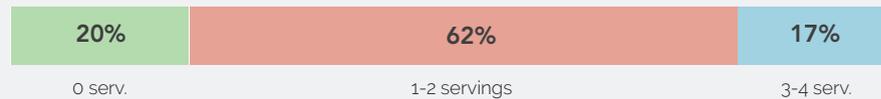


### Fruit Intake

Difficulty obtaining healthy foods  
n=9



No difficulty obtaining healthy foods  
n= 84

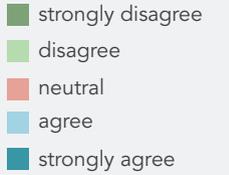


## The food I eat contains a lot of vitamins and minerals

Difficulty obtaining healthy foods  
n=9



No difficulty obtaining healthy foods  
n= 84



Taking a closer look at how difficult it is for participants to obtain healthy foods, differences in eating behaviors can be observed. The sample size of those who have no difficulty obtaining healthy foods was very small (n=9), so this sample may not be an accurate representation of the larger population.

The numbers between groups, vegetable, and fruit intake are fairly consistent, except when looking at vegetable intake. Here, 55% (n=5) of people who have difficulty obtaining healthy foods reported eat-

ing 3 or more servings of vegetables on average, as compared to 35% (n=30) of respondents who do not have difficulty obtaining healthy foods reporting eating 3 or more servings of vegetables on average.

64% (n=54) of individuals who have no difficulty obtaining healthy foods also reported eating food containing vitamins and minerals, while 33% (n=3) of those who have difficulty obtaining healthy foods reported eating food containing a lot of vitamins and minerals.

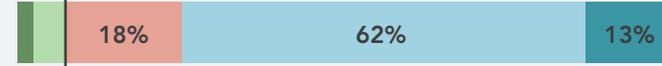
## Difficulty Obtaining Healthy Foods & Food Behaviors

### The food I eat is nutritious

Difficulty obtaining healthy foods  
n=9



No difficulty obtaining healthy foods  
n= 84

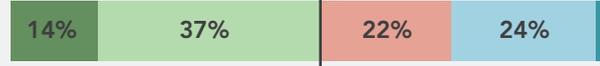


### The food I eat contains only natural ingredients

Difficulty obtaining healthy foods  
n=9

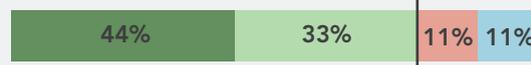


No difficulty obtaining healthy foods  
n= 84

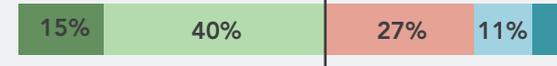


### The food I eat contains no additives or artificial ingredients

Difficulty obtaining healthy foods  
n=9



No difficulty obtaining healthy foods  
n= 84



Of participants who have difficulty obtaining healthy foods, 33% (n=3) agree or strongly agree that the food they eat is nutritious. 73% (n=61) of participants who do not have difficulty eating healthy food agree or strongly agree that they eat food that is nutritious.

Of participants who have difficulty obtaining healthy food, 78% (n=7) disagree or strongly disagree that the food they eat contains only natural ingredients. 51% (n=43) of those who do not have difficulty obtaining healthy foods disagree or strongly disagree that they eat food that only contains natural ingredients. Of participants who have difficulty obtain-

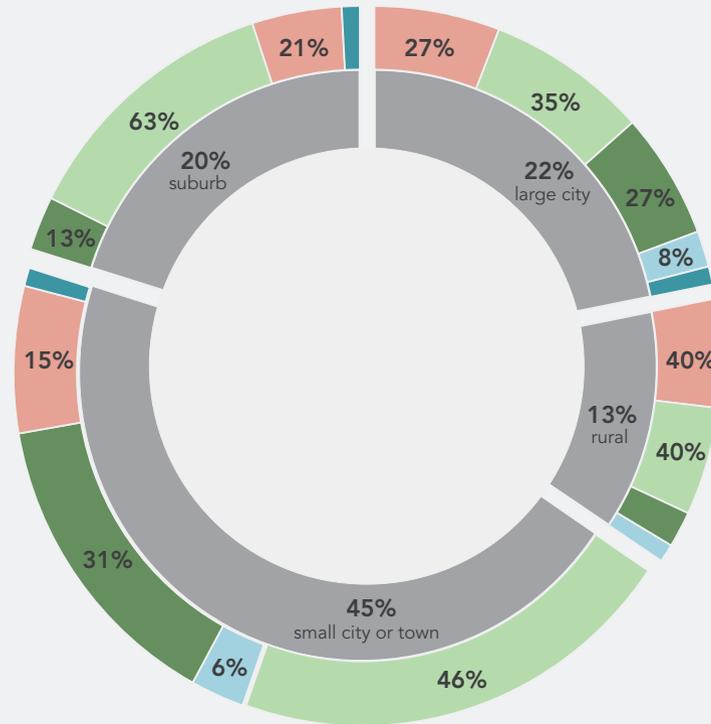
ing healthy food, 22% (n=2) answered at least neutral that the food they eat contains no additives or artificial ingredients. 46% (n=39) answered at least neutral that they eat food that contains no additives or artificial ingredients.

These three questions show that those who do not have difficult obtaining healthy foods, in general, are eating food that is more nutritious, containing more natural ingredients, and containing less additives or artificial ingredients. Differences in difficulty level of accessing healthy foods can create a large difference in the content of food being consumed.

## Difficulty Obtaining Healthy Foods & Type of Community

n= 119

- strongly disagree
- disagree
- neutral
- agree
- strongly agree



Regardless of the type of community participants live in, 71% (n=84) disagreed or strongly disagreed that they have difficulty obtaining healthy foods. Only 8% (n=9) of participants agreed or strongly agreed with this statement. The remaining 26 participants (22%) responded neutral to this statement.

Among the 20% (n=24) of participants who live in a suburb near a large city, 76% (n=18) disagree or strongly disagree that they have difficulty obtaining healthy foods. Only 4% (n=1) strongly agrees that they have difficulty obtaining healthy foods.

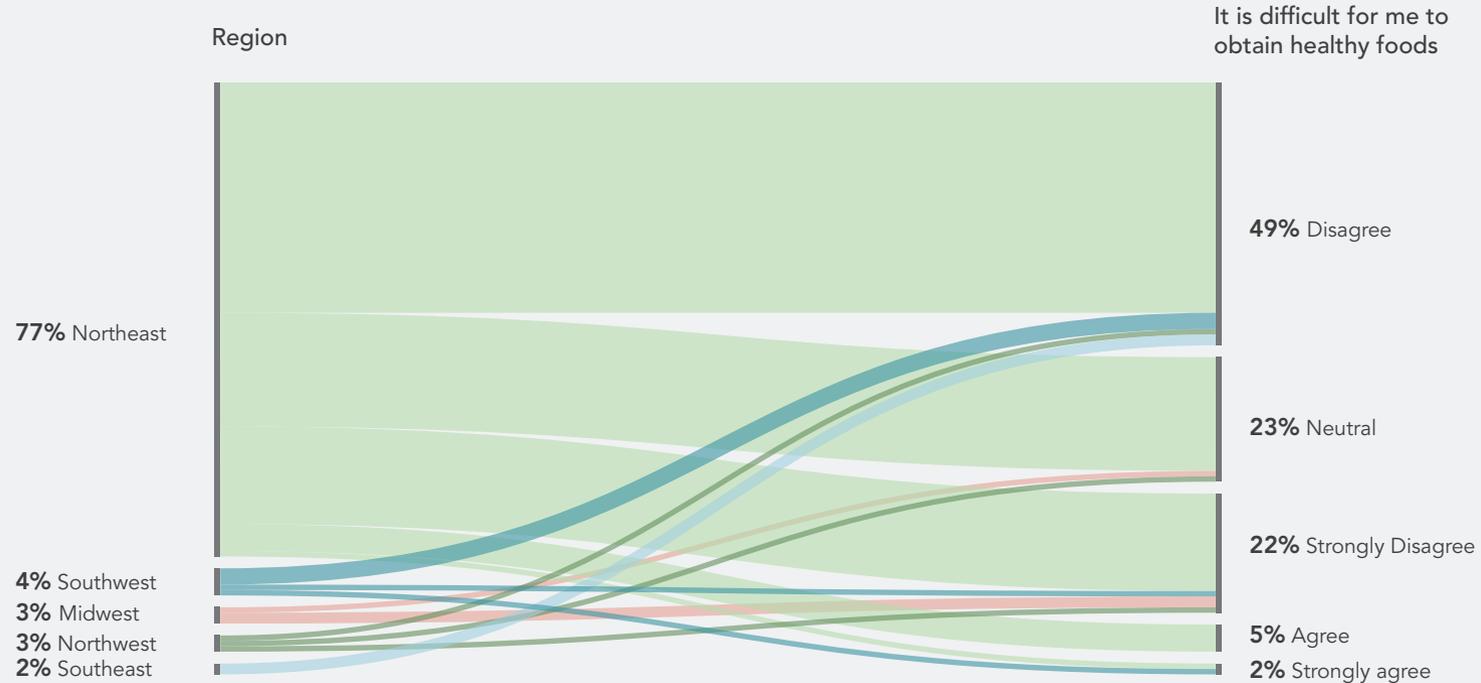
Among the 45% (n=54) of participants who live in a small city or town, 77% (n=42) disagree or strongly disagree that they have difficulty obtaining healthy foods. Only 8% (n=4) agree or strongly agree that they have difficulty obtaining healthy foods. The remainder of participants living in a small city or town (15%, n=8) responded neutral.

Among the 13% (n=15) of participants who live in a rural area, 53% (n=8) disagree or strongly disagree that they have difficulty obtaining healthy foods. 7% (n=1) agree that they have difficulty obtaining healthy foods. The remainder of respondents living in a rural area responded neutral.

Among the 22% (n=26) of participants who live in a large city, 62% (n=16) disagree or strongly disagree that they have difficulty obtaining healthy foods. 12% (n=3) agree or strongly agree that they have difficulty obtaining healthy foods. The remainder of participants living in a large city (27%, n=7) responded neutral.

## Region & Difficulty Obtaining Healthy Foods

n= 101



The majority of respondents live in the Northeast region of the United States. Of the 74% (n=88) that live in this region, there were mixed results on the extent to which it is difficult to obtain healthy foods. 69% (n=61) disagreed or strongly disagreed that they have difficulty obtaining healthy foods, 7% (n=6) agree or strongly agree that it is difficult to obtain healthy foods, and 24% (n=21) answered neutral.

The second highest number of participants do not live in the United States (15%, n=18). Of these respondents, 72% (n=13) disagreed or strongly disagreed that they

had difficulty obtaining healthy foods, 11% (n=2) agreed or strongly agreed, and 17% (n=3) answered neutral. Participants who live in other regions of the United States also had mixed responses. Most respondents who live in these regions did not agree or strongly agree that it was difficult to obtain healthy foods. In general, most disagreed or strongly disagreed with this statement.

Because the sample size for these regions was so small, the findings may not be representative of a larger population.

# MOTIVATION & DETERRENENTS

## OVERVIEW

Many people report a desire to eat healthy, yet a number of factors may prevent them from following up consistently. Self-efficacy, opportunities and support in one's environment, and mindfulness levels all contribute to an individual's motivation levels and healthy eating behavior implementation.

## MOTIVATIONAL FACTORS

### SELF-EFFICACY, SKILLS, & KNOWLEDGE

Self-efficacy, also called behavioral control, refers to, "the perception of or confidence in one's abilities and skills to engage in a certain behavior (Brug, 2008)." For exam-

ple, a person who is confident that they can cut back on saturated fat intake will be more motivated to do so, even if they are faced with challenges. Self-efficacy is also related to skills, abilities, and knowledge. For example, knowing the recommended fruit and vegetable intake levels can help an individual change their behaviors. However, it has been found that knowledge alone is not a direct determinant of eating behaviors (Brug, 2008).

### OPPORTUNITIES AND SUPPORT

The physical and social cultural food environments also play a large role in food behaviors. The environment one is in can make healthy food behaviors easy or difficult, depending on different factors. A sys-

tematic review of literature related to the role of environments has found that social support and modeling is more important in youth, parents have an important role in nutrition behaviors of their children, availability and accessibility of healthy foods and less healthy foods are important in youth and adulthood, and children and adolescents from more deprived families are likely to have unhealthier diets, and lower household income is associated with less healthy diets in adults (Brug, 2008).

### MINDFULNESS

Being exposed to an overwhelming amount of health messaging can have different effects on people, causing some to embrace the information, while

---

causing others to become defensive or resentful (Mindfulness, 2017). It has been found that people who are more mindful are more receptive to messages about health behaviors and are more likely to be motivated to change their habits and behaviors. Mindfulness is usually defined as, “having awareness of the present moment (Mindfulness, 2017). One study focusing on this looked at participants who have low levels of weekly exercise and showed them different health messages. The researchers also asked participants to complete the Mindfulness Attention Awareness Scale to gauge their mindfulness levels in everyday life. It was found that less mindful people were also less likely to make a positive change in behavior after being exposed

to health messages. People who were more mindful reacted less negatively to the health messages and were less likely to feel ashamed by them, and they were also more likely to change their behavior to be healthier (Mindfulness, 2017).

### **DETERRENTS**

Many factors may make it difficult for people to eat healthy foods, despite their desire and intention to. There is often a large time commitment needed to plan, prepare, and cook meals, an overwhelming amount of information on what eating healthy entails, and the increased cost of healthy foods as compared to unhealthier options (Newell, 2020).

A few different psychological factors affect one’s choice to eat healthy foods or not. People often weight the short-term versus long-term benefits of choosing foods to eat. Many benefits of eating unhealthy foods are immediate, and many potential risks are uncertain and long-term, so people are often likely to choose foods that may be unhealthy, but which produce short-term benefits and happiness. Also, food choices can be habitual. People are often more likely to act habitually when they are depleted, distracted, or under time pressure (Chance et. al, 2014).

### **YOUNG ADULTS**

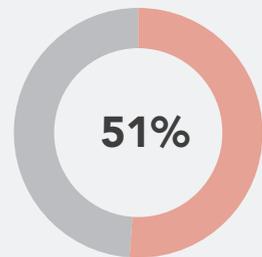
As individuals transition into young adulthood, many may be motivated to incorporate healthy food behaviors, but may face challenges. Research has found that the main reasons young adults want to eat healthy include healthful eating as a lifestyle, to set a good example and teach others, for increased well-being, for weight management, and to prevent future health problems (Alexander et. al, 2017).

It has been found that young adults aged 18 to 31 do not regularly engage in healthy eating. Data shows that young adults consume levels well below the recommended

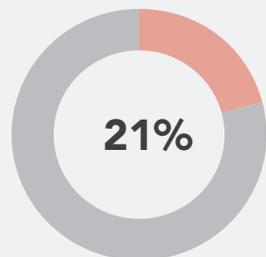
daily servings of fruits and vegetables, and they often have high levels of fast food intake as compared to other age groups. Some of the main factors that contribute to these patterns include cost barriers, stress, limited knowledge of how to prepare healthy foods, and taste preferences in young adults, both in college and not in college. The most frequently reported barrier to eating healthy is lack of time. Young adults pointed out challenges such as balancing school, work, and leisure schedules (Escoto et. al, 2012).

## Motivation to Eat Healthy

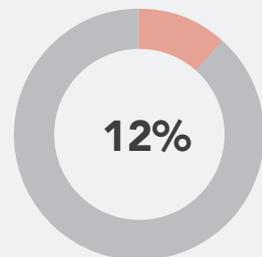
n= 119



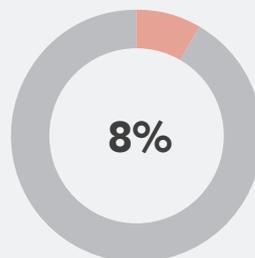
overall physical health



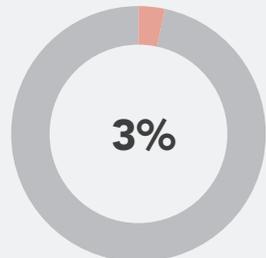
to lose weight



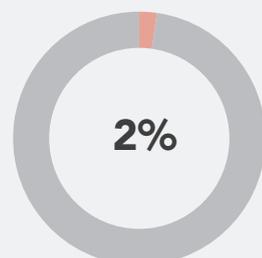
overall mental health



to prevent potential future health problems



vitamin, mineral, and antioxidant content

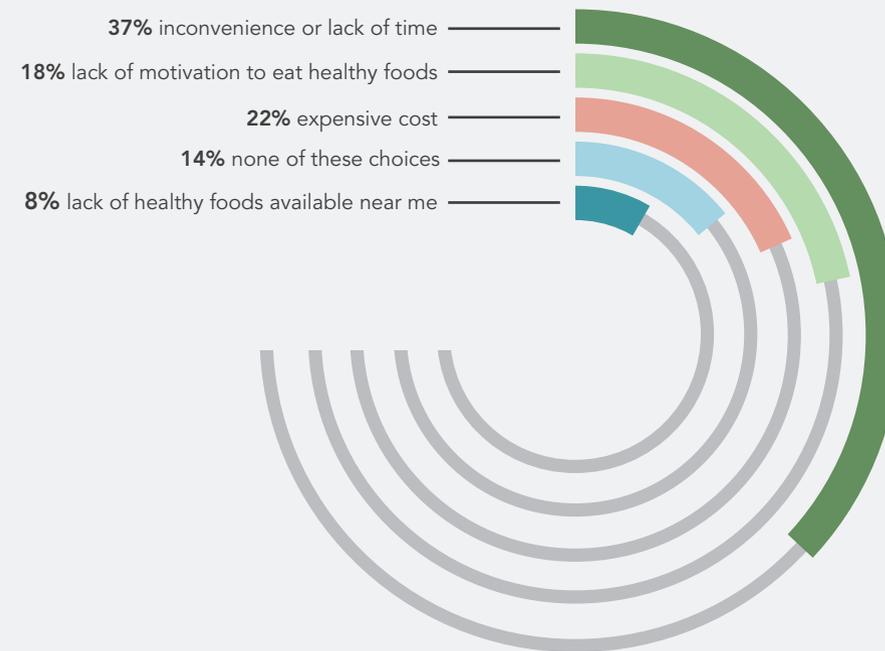


increased energy

The top three motivators to eat healthy include overall physical health, to lose weight, and for overall mental health. 51% (n=61) responded that overall physical health was the biggest motivating factor, 21% (n=25) responded that losing weight was the biggest motivating factor, and 12% (n=14) responded that overall mental health was the biggest motivating factor.

## Deterrents to Eating Healthy

n= 119



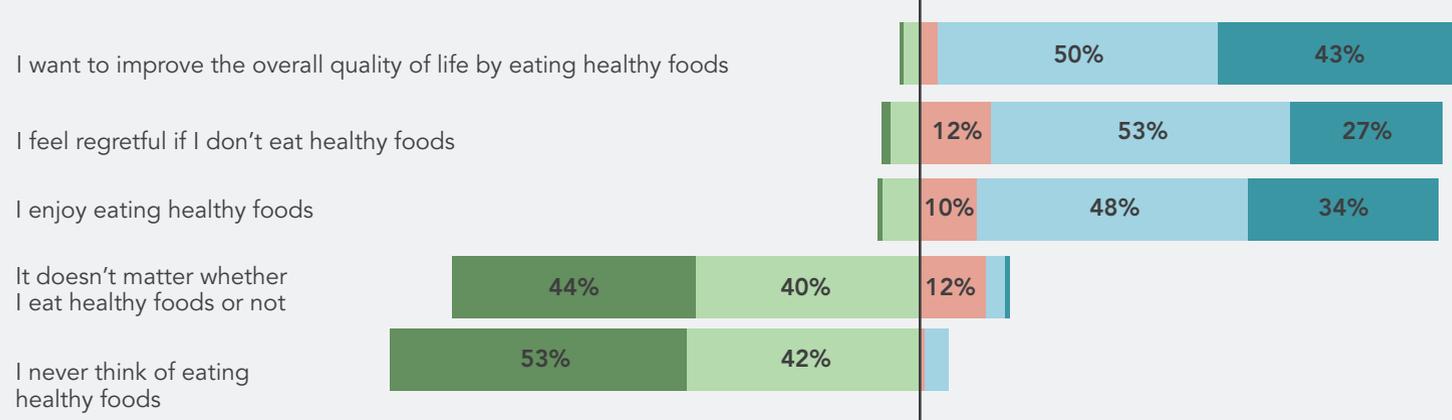
Among all participants who answered this question, the top three deterrents to eating healthy are inconvenience or lack of time (37%, n=44), expensive cost (22%, n=26), and lack of motivation to eat healthy foods (18%, n=22). 0 respondents identified, "I do not think it is important to eat healthy" as a deterring factor to eating healthy foods.

## Motivation to Eat Healthy



### I eat healthy foods because...

n= 118



In general, individuals who responded to these questions showed positive responses towards the desire to and importance of eating healthy.

93% (n=110) of respondents agreed or strongly agreed that they want to improve the quality of their lives by eating healthy foods, 80% (n=95) agree or strongly agree that they feel regretful if they don't eat healthy foods, and 82% (n= 97) agree or strongly agree that they enjoy eating healthy foods.

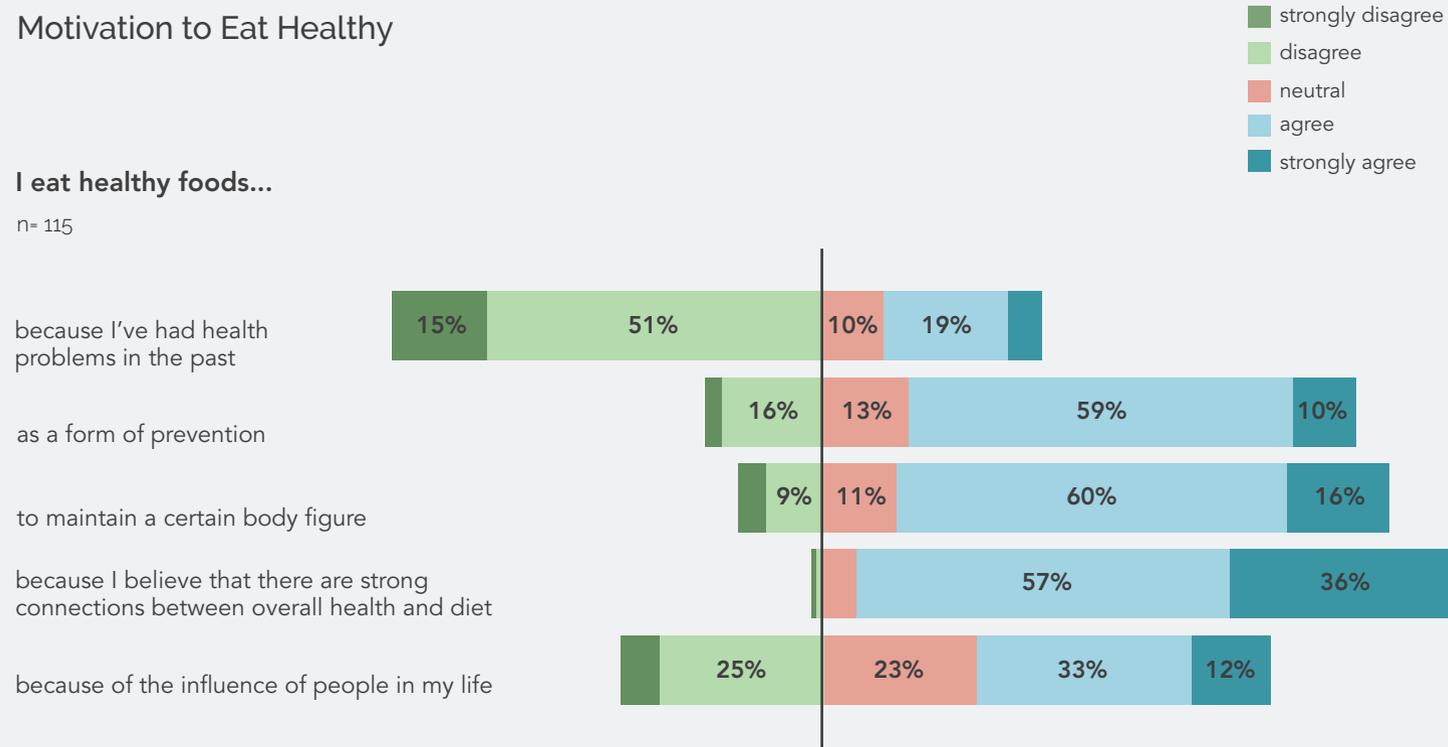
On the other hand, 84% (n=99) of respondents disagree or strongly disagree that it does not matter whether they eat healthy foods or not, and 95% (n=112) disagree or strongly disagree that they never think of eating healthy foods.

These results show that individuals in general are aware of the benefits of eating healthy foods, enjoy eating healthy foods, and are motivated to eat engage in healthy eating behaviors.

## Motivation to Eat Healthy

### I eat healthy foods...

n= 115



In general, participants display strong motivation to eat healthy foods for positive reasons such as the effect of healthy eating on overall health, for reasons related to past or future potential health problems, and because of the influence of people in their lives.

69% (n=79) agree or strongly agree that they eat healthy foods as a form of prevention, and 93% (n=107) agree or strongly agree that they eat healthy foods because they believe that there are strong con-

nections between overall health and diet. 24% (n=28) eat healthy foods because they have had health problems in the past. 45% (n=52) agree or strongly agree that they eat healthy foods because of the influence of people in their lives, and 76% (n=87) agree or strongly agree that they eat healthy foods to maintain a certain body figure.

## Eating Healthy Foods as a Form of Prevention & Eating Habits

### I eat healthy foods as a form of prevention

Fruit Intake  
n= 79



Vegetable Intake  
n= 83

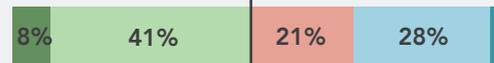


### I eat healthy foods as a form of prevention & the food I eat...

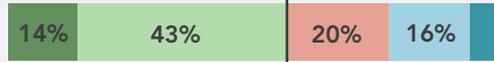
contains a lot of vitamins and minerals  
n=115



contains only natural ingredients  
n= 114



contains artificial ingredients  
n= 115



This section takes a closer look at specific motivations to eat healthy that are related to physical health and the eating habits of those who agreed or strongly agreed that these motivational factors were applicable to them.

Only 18% (n=15) of people who eat healthy foods as a form of prevention eat 3 or more servings of fruit per day, and 48% (n=26) eat 3 or more servings of vegetables per day.

63% (n=50) of respondents who eat healthy foods as a form of prevention also agree or strongly agree that the food they eat contains a lot of vitamins and minerals. On the other hand, only 31% (n=24) agree or strongly agree that the food they eat contains only natural ingredients, and 22% (n=18) agree or strongly agree that they eat food that contains no additives or artificial ingredients.

# WELL-BEING

## OVERVIEW

According to the American Psychological Association, well-being is defined as, "A state of happiness and contentment, with low levels of distress, overall good physical and mental health and outlook, or good quality of life (APA, 2020)." High levels of well-being have many benefits, including increased longevity, improved immune functioning, better personal relationships, and increased career success, and it is a crucial part of overall health. Recently, the World Health Organization has endorsed the expansion of the concept of health to include the promotion of well-being, happiness, life satisfaction, and flourishing (Holder, 2019).

## POSITIVE PSYCHOLOGY

Positive psychology is an area of psychology that has a central focus on well-being, while understanding the importance of researching and promoting happiness, satisfaction, strengths, positive experiences, positive traits, and other aspects of the human experience. The general goal of positive psychology is to expand on traditional psychology's focus on things that are wrong with people and how to address those problems, while also focusing on what is right and how to help people thrive and flourish (Holder, 2019).

For the most part, health-related fields such as medicine, neuroscience, and psychology have adopted the medical model,

which focuses on deficits, disease, and dysfunction. Research focused on these things has been extremely important in understanding and alleviating illnesses. However, this creates an incomplete picture of health, focusing mostly on the absence or reduction of illness. With positive psychology becoming more popular, a lot of research is now focused beyond solely eliminating disease, but on promoting well-being as well (Holder, 2019).

Despite the many benefits associated with eating healthy, previous research has shown that diets and restrained eating can be counterproductive, and may enhance the risk of long-term weight gain and eating disorders. A shift in perspective on

food behaviors from food as pure nourishment towards a more positive well-being centered perspective of human eating behavior is adopted by researchers in the field (Wahl et. al, 2017).

### **FOOD CONSUMPTION**

For many years, the medical field did not focus on or completely acknowledge the connection between overall mood and food. There is a growing body of research exploring the link between what people eat, how they feel, and how they behave. Recent research has found that the consumption of healthy foods can enhance well-being (Selhub, 2020).

### **SHORT TERM VS. LONG TERM WELL-BEING**

Eating healthy foods can have both short-

term and long-term effects on overall well-being. Short-term, benefits may include increased energy, weight loss, improved memory, deeper sleep, and better mood, while long-term effects may include reduced risk of heart disease, diabetes, osteoporosis, and cancer (Styles, 2018).

One study from Wahl and Colleagues (2017) investigated in-the-moment experiences of individuals eating different foods. It was found that fruit and vegetable consumption had immediate beneficial psychological effects. 14 different food categories were studied, and out of them all, vegetable consumption contributed the most to eating happiness. This was measured over eight days. It was found that healthy food choices may contribute to in the moment well-being, in addition to

future well-being. Also, in general, sweets provided similar induced eating happiness to healthy foods choices such as fruits or vegetables. (Wahl et. al, 2017).

### **FRUITS AND VEGETABLES**

Healthy food choices, specifically eating fruits and vegetables, may have physical and mental health benefits. Consuming these types of foods may contribute to short-term and long-term well-being.

A review of the literature on the role of fruits and vegetables on psychological from Rooney, McKinley, and Woodside (2013) explains that thought more clarification and research is needed, it is thought that fruit and vegetable intake is linked to psychological health due to the way certain nutrients in fruits and vegetables,

specifically B, C, and E vitamins, certain minerals, and other antioxidants such as polyphenols, influence psychological well-being (Rooney et. al, 2013).

One study from Mujcic and Oswald (2016) studied 12,000 adults in Australia to look at the link between diet and later life satisfaction and happiness. It was found that increased fruit and vegetable consumption predicted increased happiness, life satisfaction, and well-being over a 2 year period (Mujcic & Oswald, 2016).

### **PROCESSED AND FAST FOODS**

Fast foods include chips, soda, cookies, breakfast cereals, bars, French fries, burgers, pizza, white flour baked goods, and other high-calorie, low-nutrient foods that many people eat every day. These types of

foods can be accessed easily and quickly, they don't need to be prepared, they come out of a box or bag, they can be eaten rapidly and are absorbed quickly into the bloodstream, they typically contain multiple chemicals and synthetic ingredients, are calorically dense, highly flavored, and nutritionally barren. They also typically contain extra corn syrup, sugar, artificial sweeteners, salt, coloring agents, and other chemicals that can potentially promote disease (Fuhrman, 2018).

Recent research has found that over 60% of the food purchased annually in America is highly processed (Brown, 2020). The added unhealthy ingredients in processed and fast foods such as fat, sugar, and salt creates a taste that makes people crave these foods. Sugar and salt intake can

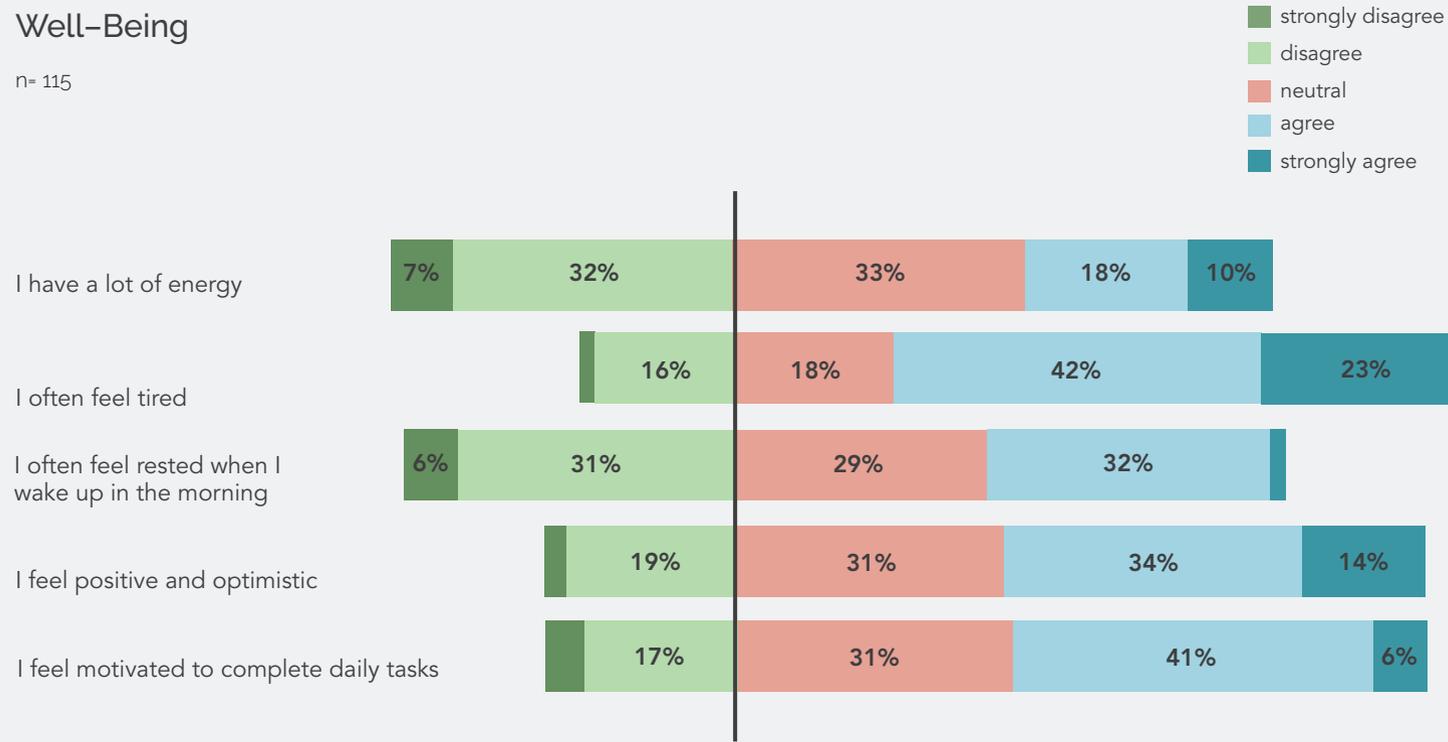
increase stroke risk, high salt intake can raise blood pressure, cause microvascular hemorrhaging, which damages the interior walls of the blood vessels in the brain (Fuhrman, 2018). Excess amounts of these types of foods can also lead to obesity, inflammatory bowel disease, autoimmune disease, colorectal cancer, and anxiety and depression (Brown, 2020).

### **OVERVIEW**

In general, it is clear that there are links between overall well-being and the type of food that are consumed. Although more research is needed in many areas, previous findings are promising.

## Well-Being

n= 115



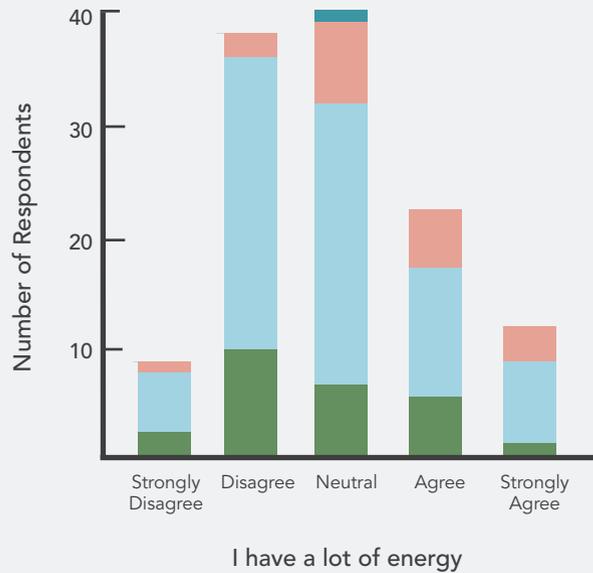
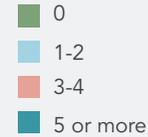
Of individuals who responded to this set of questions measuring general well-being, there were mixed results for most questions.

28% (n=32) agree or strongly agree that they have a lot of energy, while 39% (n=44) disagree or strongly disagree with this statement. 65% (n=74) agree or strongly agree that they often feel tired, and only 34% (n=39) agree or strongly agree that they feel rested in the morning. 48% (n=55) agree or strongly agree that they feel positive and optimistic, and 47% (n=54) agree or strongly agree that they feel motivated to complete daily tasks.

## Fruit Intake & Energy Level

n= 114

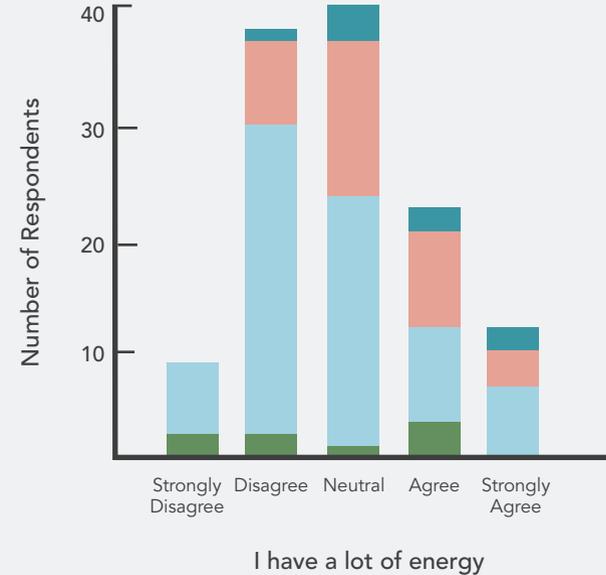
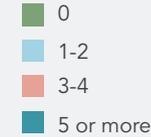
Number of Servings of Fruit



## Vegetable Intake & Energy Level

n= 114

Number of Servings of Vegetables



### FRUIT INTAKE

Of the 32 (28%) participants who agreed or strongly agreed that they have a lot of energy, 19% (n=6) eat 0 servings of fruit per day, 56% (n=18) eat 1–2 servings per day, and 25% (n=8) eat 3–4 servings per day. No one who agrees or strongly agrees that they have a lot of energy eats 5 or more servings of fruit per day.

Of the 44 (39%) participants who disagreed or strongly disagreed that they have a lot of energy, 25% (n=11) eat 0 servings of fruit per day, 68% (n=30) eat 1–2 servings of fruit per day, and 7% (n=3) eat 3–4 servings per day. No one who disagrees or strongly disagrees that they have a lot of energy eats 5 or more servings of fruit per day.

### VEGETABLE INTAKE

Of the 32 (28%) participants who agreed or strongly agreed that they have a lot of energy, 9% (n=3) eat 0 servings of vegetables per day, 44% (n=14) eat 1–2 servings per day, 34% (n=11) eat 3–4 servings per day, and 13% (n=4) eat 5 or more servings per day.

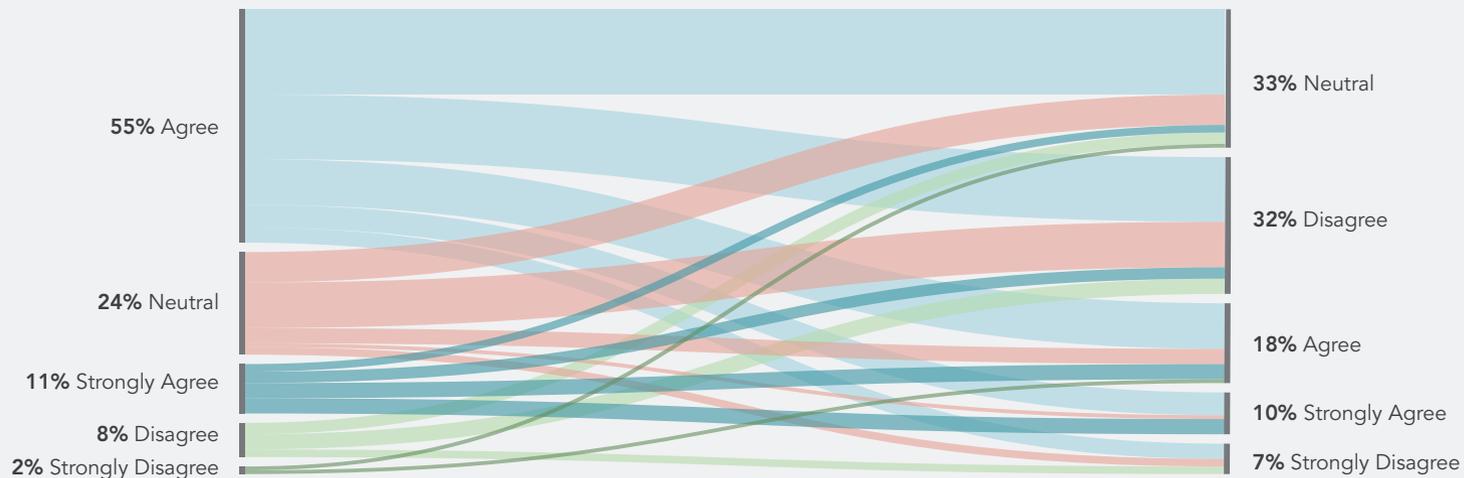
Of the 44 (39%) participants who disagreed or strongly disagreed that they have a lot of energy, 4% (n=4) eat 0 servings of vegetables per day, 73% (n=32) eat 1–2 servings per day, 16% (n=7) eat 3–4 servings per day, and 2% (n=1) eat 5 or more servings per day.

## Nutritious Food & Energy Level

n= 114

The food I eat on a typical day is nutritious

I have a lot of energy



These questions compare the relationship between eating food that is nutritious and energy levels.

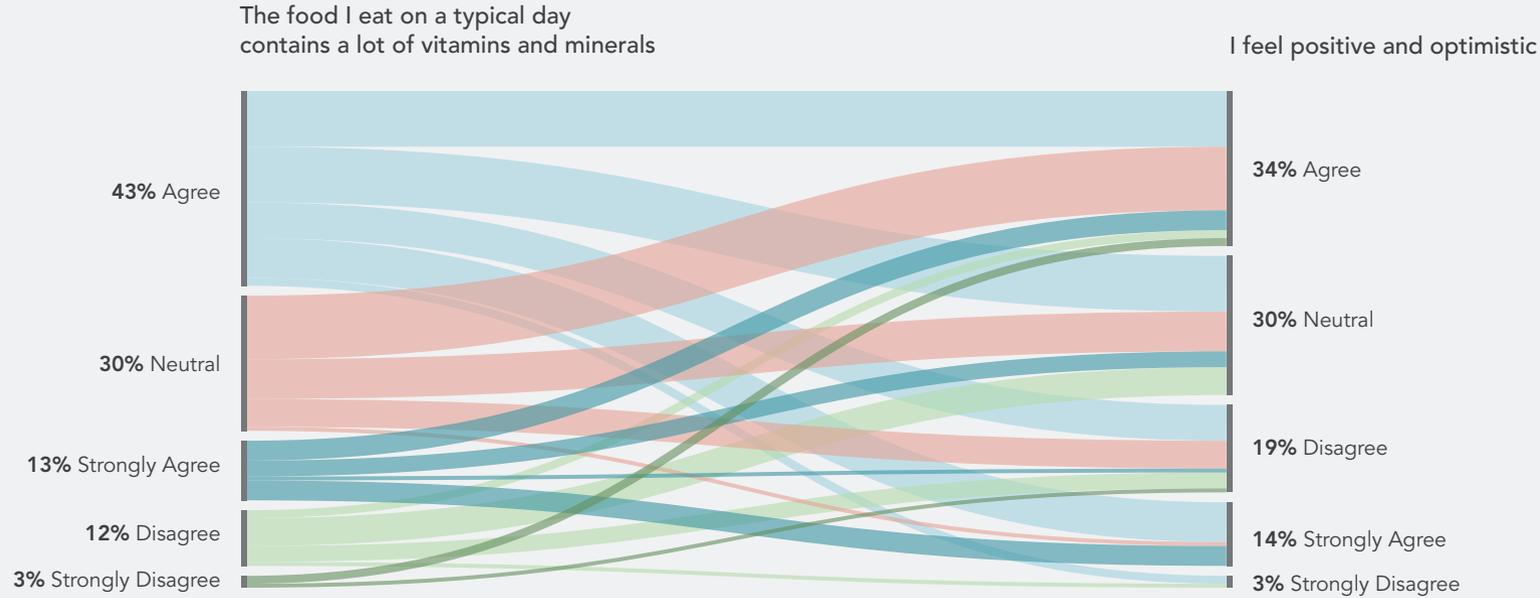
Of the 76 (67%) participants who either agreed or strongly agreed that they typically eat food that is nutritious, 34% (n=26) agreed or strongly agreed that they have a lot of energy. Of these same 76 participants, 32% (n=24) disagreed or strongly disagreed that they have a lot of energy. The remaining 34% (n=26) responded neutral to both questions.

Of the 11 (10%) participants who either disagreed or strongly disagreed that the food they typically eat is nutritious, 9% (n=1) agreed or strongly agreed that they have a lot of energy. Of these same 11 participants, 55% (n=6) disagreed or strongly disagreed that they have a lot of energy. The remaining 36% (n=4) responded neutral to both questions.

This does not explain a correlation, it just shows the overlap in the ways respondents answered these two questions.

## Vitamin & Mineral Intake and Positivity & Optimism

n= 115



These questions compare the relationship between eating a lot of foods that contain vitamins and minerals and feeling positive and optimistic.

Of the 64 (56%) participants who either agreed or strongly agreed that they typically eat food that contains a lot of vitamins and minerals, 53% (n=34) agreed or strongly agreed that they felt positive or optimistic. Of the same 64 participants who eat food that contains a lot of vitamins and minerals, 19% (n=12) disagree or strongly disagree that they feel positive and optimistic. The remaining 28% (n=18) answered neutral for both questions.

On the other hand, of the 17 (15%) of participants who either disagreed or strongly disagreed that they typically eat food that contains a lot of vitamins and minerals, 24% (n=4) agreed or strongly agreed that they feel positive and optimistic. Of the same 17 participants, 35% (n=6) disagreed or strongly disagreed that they feel positive or optimistic. The remaining 41% (n=7) answered neutral for both questions.

This does not explain a correlation, it just shows the overlap in the ways respondents answered these two questions.

# COLLEGE STUDENTS & EATING HABITS

## OVERVIEW

Many studies have found that college students often have poor eating habits in general. Students tend to eat fewer fruits and vegetables on a daily basis, and they report high intake of high-fat, high-calorie foods (Deshpande et. al, 2009). Factors such as lack of accessibility to healthy foods, the high cost of healthy foods, and lack of motivation to eat and time to prepare healthy foods are all contributing factors an unhealthy diet in college.

## TRANSITION PERIOD

The transition from high school to college is a significant period in an individual's life with many challenges. Many researchers have identified different factors that con-

tribute to malnutrition and related health problems in emerging adulthood, some of which include: unhealthy eating habits increased when young adults leave their home circumstances, lower consumption of healthy options, irregular meals, and increasing intakes of unhealthy snacks and other junk foods (Sogari et. al, 2018).

Specifically, students in their first year of college are at a high risk for poor diets. During this time, students have a new-found independence, and they often develop unhealthy changes in diet and exercise habits. These changes can lead to short-term and long-term behavioral and health outcomes (Dhillon et.al, 2019). It has also been suggested that dietary habits

established in the first two years of college will likely carry on though later college years (Deshpande et. al, 2009).

## ACCESSIBILITY ISSUES

Access to and the availability of healthy food has a large influence on the food students consume and the food choices they make (Dhillon et.al, 2019).

Food insecurity can also have negative effects beyond health problems. Poor diet quality because of a lack of access to healthy foods can lead to decreased academic performance and poor mental health. This is especially prevalent on college campuses that are located in food deserts (Dhillon et.al, 2019).

## LIVING SITUATION

Changes in an individual's living situation during the transitional period of college may play an important role in nutritional behaviors of college students.

## DORM LIVING CHALLENGES

Students who live in a dorm on a college campus are often limited in the types of food they are able to consume.

Many college students across the United States report lacking access to a reliable supply of nutritious food. Many students want to eat healthy, but they have difficulty doing so due to the lack of healthy options available on college campuses. Students who live in dorms are often required to have pre-paid meal plans, limiting them to eating the foods that are being offered on campus, which often consist of a poor variety of fruits and vegetables and

processed foods. If college campuses prioritize offering healthy options and make these options affordable and accessible, it will be easier for students to choose these options (Massa, 2012).

One study surveyed mostly first year undergraduate students living in a college dorm. It was found that students keep a wide range of food and drinks in their dorms, purchased by their parents or by the students themselves. Many of these products consisted of salty snacks, cereal or granola bars, desserts or candy, and sugary drinks. Fewer students had low-calorie beverages, fruits and vegetables, dairy products, tea or coffee, and 100% fruit or vegetable juice. Many of the items that were purchased by parents had a higher calorie and fat content than the items that students purchased (Nelson & Story, 2009).

## OFF CAMPUS LIVING CHALLENGES

One study from Small and Colleagues (2014) found that living off campus exacerbated the lack of fruit and vegetable consumption among students. Students living off campus report high workloads and lack of time, which are contributing factors to eating healthy and engaging in physical activity. Also, interpersonal issues such as sharing apartments and houses, negotiating with roommates on how food will be purchased, prepared, and shared can contribute to a lack of healthy eating (Small et. al, 2012).

## FINANCIAL BURDEN

One study from the Journal of Nutrition Education and Behavior found that 52% of students at a university in Oregon were classified as food insecure at some point during the last school year, and 62% of students at the college could not afford

balanced meals in the last month. These students appear to be struggling to buy healthy foods like fruits and vegetables or lean meats (Sifferlin, 2014).

There may be several reasons that many undergraduate college students are experiencing food insecurity. First, the extremely high and continuously rising tuition costs and the high cost of living on or off campus puts a large burden on students and their families. Busy schedules, inexperience with budgeting spending, and socioeconomic background are all factors that may also contribute (Sifferlin, 2014).

## BARRIERS AND ENABLERS

One study from Amore, Buchthal, and Banna (2019) studied barriers and enablers of healthy eating in college students ages 18-24 at a university in Hawaii. It was found that knowledge of, in addition to attitudes and beliefs towards healthy eating, and

parental control and influence, behavior modeling through friend groups, the "all you can eat" option that is offered with college dining halls and meal plans were important enablers and barriers. Some of the main barriers include cost, priority level of eating healthy, the perception that healthy food is not convenient, and the location of grocery stores in relation to campus, dorms, or living situation. (Amore et. al 2019).

## MOTIVATION

House, Su, and Levy-Milne (2006) studied college students and the benefits the students believe came from eating healthy. It was found that students believed eating healthy would provide a healthy appearance (weight, skin, physique, etc.), providing positive feelings, and preventing disease (Deshpande et. al, 2009). Another study from Horacek and Betts (1998) found

that taste, time sufficiency, convenience, and budget influenced students' eating habits, in that order (Deshpande et. al, 2009). Some other factors that were found to be associated with poor eating habits among college students include a higher perception of stress, low self esteem, and a low level of nutrition knowledge (Deshpande et. al, 2009).

## SUMMARY

The eating behaviors of college students may continue on into later life, so the college years are very important in forming healthy eating habits. It is important for institutions to acknowledge the challenges students are facing, offer affordable, healthy options and nutritional education, and help students in any way possible in order for them to eat healthy, well-rounded diets.

## Students and Food Behaviors

### The food I eat...

helps me cope with stress (n=53)

makes me feel good (n=53)

contains only natural ingredients (n=52)

is low in calories (n=52)

helps me control my weight (n=52)

tastes good (n=52)

contains no additives or artificial flavors (n=51)

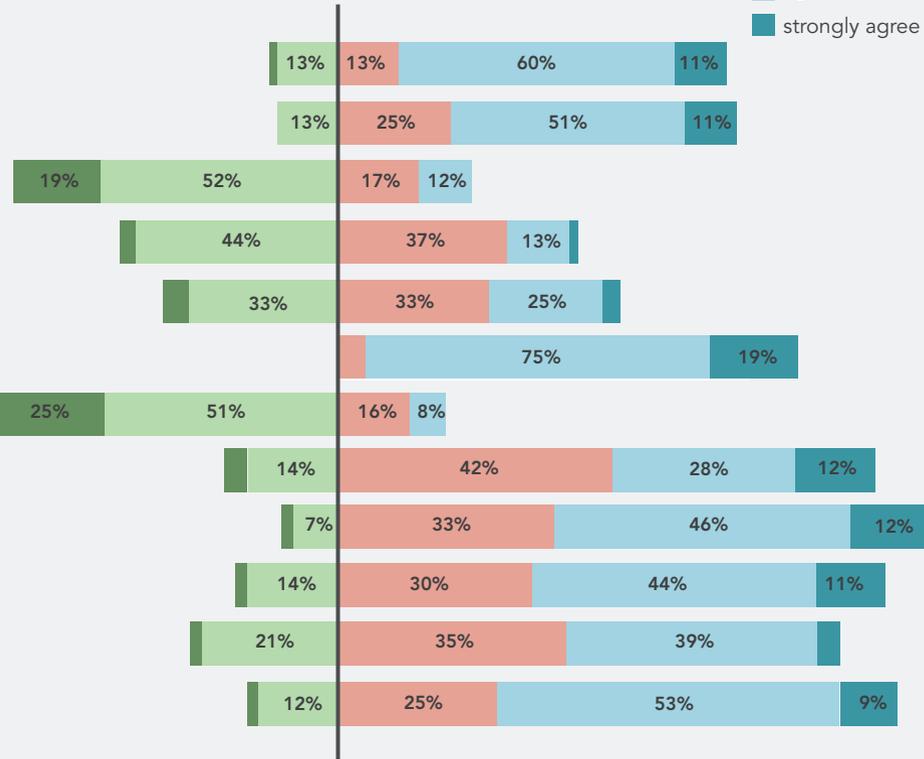
contains a lot of vitamins and minerals (n=57)

is nutritious (n=57)

is high in protein (n=57)

is high in fiber and roughage (n=57)

gives me energy (n=57)



The sample size for each question is slightly different because not every participant answered every question.

Some points of note include: 71% (n=38) of respondents agreed or strongly agreed that they eat food that helps them cope with stress, and 62% (n=33) agreed or strongly agreed that they eat food that makes them feel good.

71% (n=37) disagree or strongly disagree that the food they eat contains only natural ingredients, 48% (n=25) disagree or strongly disagree that they eat food that is low in calories, and 94% (n=49) agree

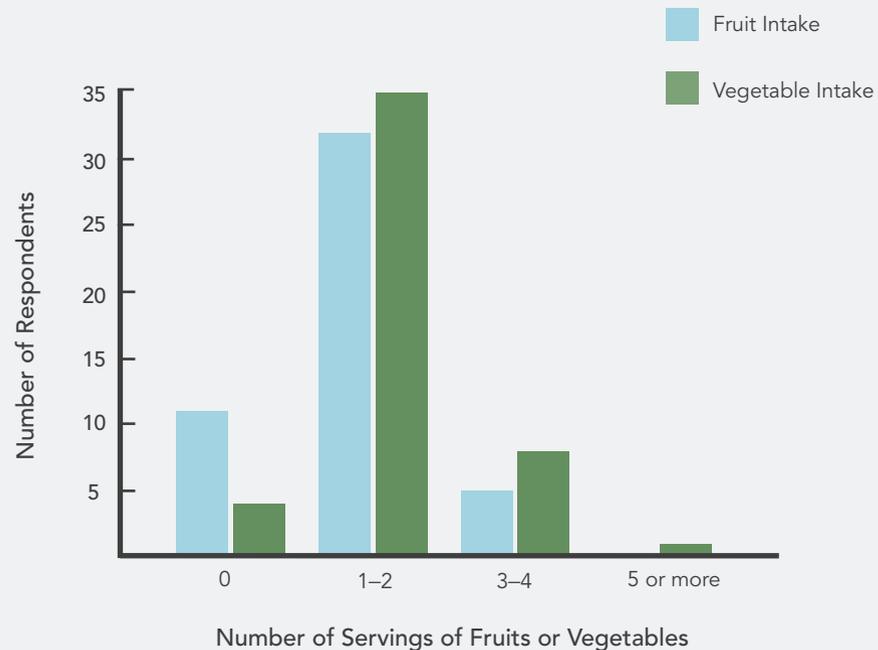
or strongly agree that they eat food that tastes good.

8% (n=4) agree that they eat food that contains no additives or artificial flavors, 40% (n=23) agree or strongly agree that they eat food that contains a lot of vitamins and minerals, and 58% (n=33) agree or strongly agree that the food they eat is nutritious.

55% (n=31) agree or strongly agree that they eat food that is high in protein, 42% (n=24) agree or strongly agree that the food they eat is high in fiber and roughage, and 61% (n=35) agree or strongly agree that they eat food that gives them energy.

## Students and Fruit & Vegetable Intake

n= 48



Of the 48 students who responded to questions on fruit and vegetable intake, the majority of students eat 1–2 servings of fruit or vegetables per day. 67% (n=32) eat 1–2 servings of fruit per day, and 73% (n=35) eat 1–2 servings of vegetables per day.

### VEGETABLE INTAKE

8% (n=4) eat 0 servings of vegetables per day, 73% (n=35) eat 1–2 servings of per day, 17% (n=8) eat 3–4 servings per day, 2% (n=1) eat 5 or more servings per day.

### FRUIT INTAKE

23% (n=11) eat 0 servings of fruit per day, 67% (n=32) eat 1–2 servings per day, 10% (n=5) eat 3–4 servings per day, and 0 students eat 5 or more servings per day.

## Students and Food Characteristics

n= 53

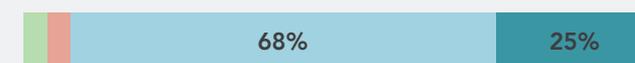


### The food I eat...

is easy to prepare and cook



is easily available in shops and supermarkets close to where I live



is not expensive



For college students, it is important for food to be easily obtainable and quick to prepare and cook, in addition to being cheap.

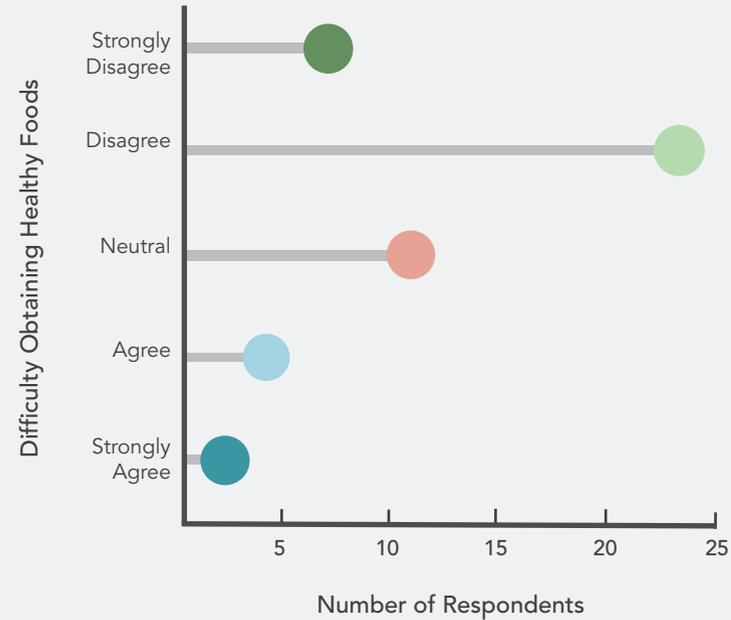
68% (n=36) agree or strongly agree that the food they eat is easy to prepare and cook.

93% (n=49) agree or strongly agree that the food they eat is easily available in shops or supermarkets close to where they live.

68% (n=36) agree or strongly agree that the food they eat is not expensive.

## Students & Difficulty Obtaining Healthy Foods

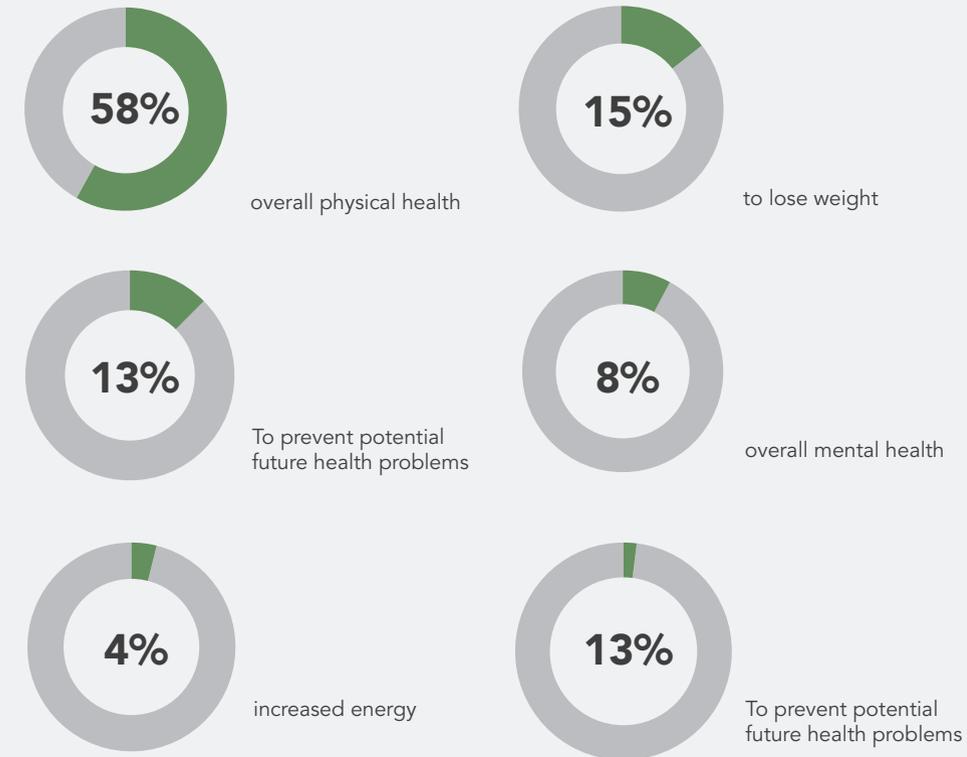
n= 48



Of the 48 students who responded to this question, 15% (n=7) strongly disagreed that it was difficult for them to obtain healthy foods, 50% (n=24) disagreed, 23% (n=11) responded neutral, 8% (n=4) agreed, and 4% (n=2) strongly agreed.

## Students & Motivation to Eat Healthy

n= 48

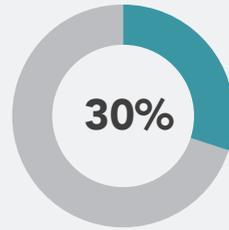


Among full-time and part-time students (n=48), the top three reasons for wanting to eat healthy include, for overall physical health (58%, n=28), to lose weight (14%, n=7), and to prevent future health problems (12%, n=6).

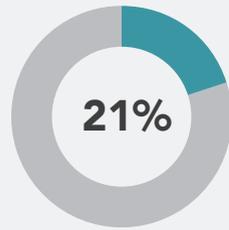
Overall physical health and losing weight were also the top two reasons people want to eat healthy among all participants. The top third reason among all participants was for overall mental health, and among students, the top third reason was to prevent future health problems.

## Students & Healthy Eating Deterrents

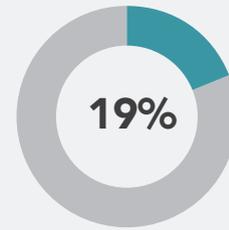
n= 48



Inconvenience or lack of time



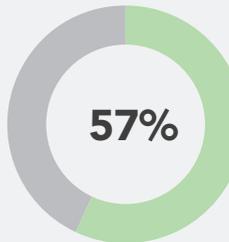
Lack of healthy foods available near me



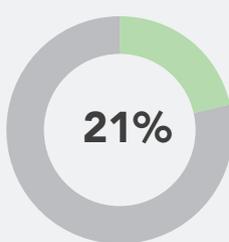
Lack of motivation to eat healthy foods

## Dorm Living & Healthy Eating Deterrents

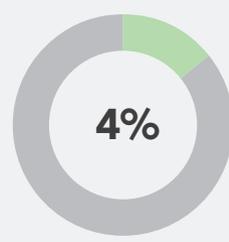
n= 14



Lack of healthy foods available near me



Lack of motivation to eat healthy foods



Inconvenience or lack of time

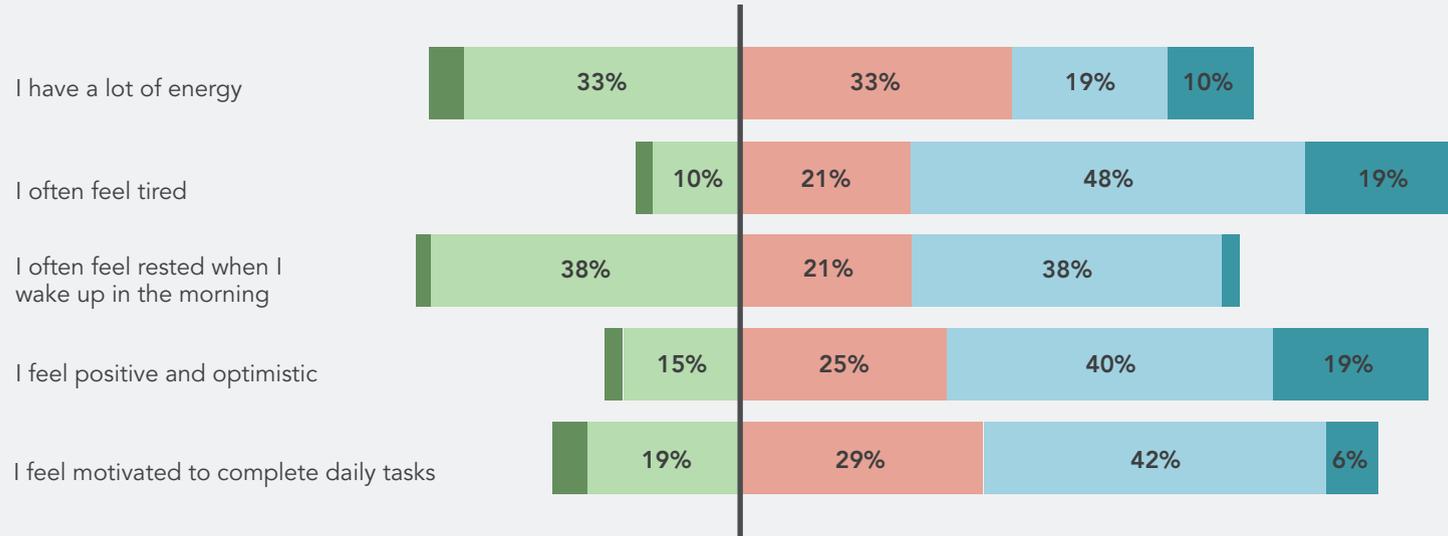
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Of college students (n=48), the top three deterrents to eating healthy foods include inconvenience or lack of time (30%, n=16), lack of healthy foods available near me (21%, n=10), and lack of motivation to eat healthy foods (19%, n=9).

Of the 14 respondents who reported living in a college dorm, 57% (n=8) reported that the biggest deterrent to eating healthy foods is a lack of healthy foods available nearby, 21% (n=3) reported that the biggest deterrent was a lack of motivation to eat healthy foods, and 4% (n=2) reported that the biggest deterrent was inconvenience or lack of time.

## Students & General Well-Being

n= 48



Of the 48 students who answered these questions on general well-being, mixed results were found.

29% (n=14) agreed or strongly agreed that they have a lot of energy, and 38% (n=18) disagreed or strongly disagreed with this statement.

67% (n=32) agreed or strongly agreed that they often feel tired, and 13% (n=6) disagreed or strongly disagreed with this statement.

40% (n=19) agreed or strongly agreed that they often feel rested when they wake up

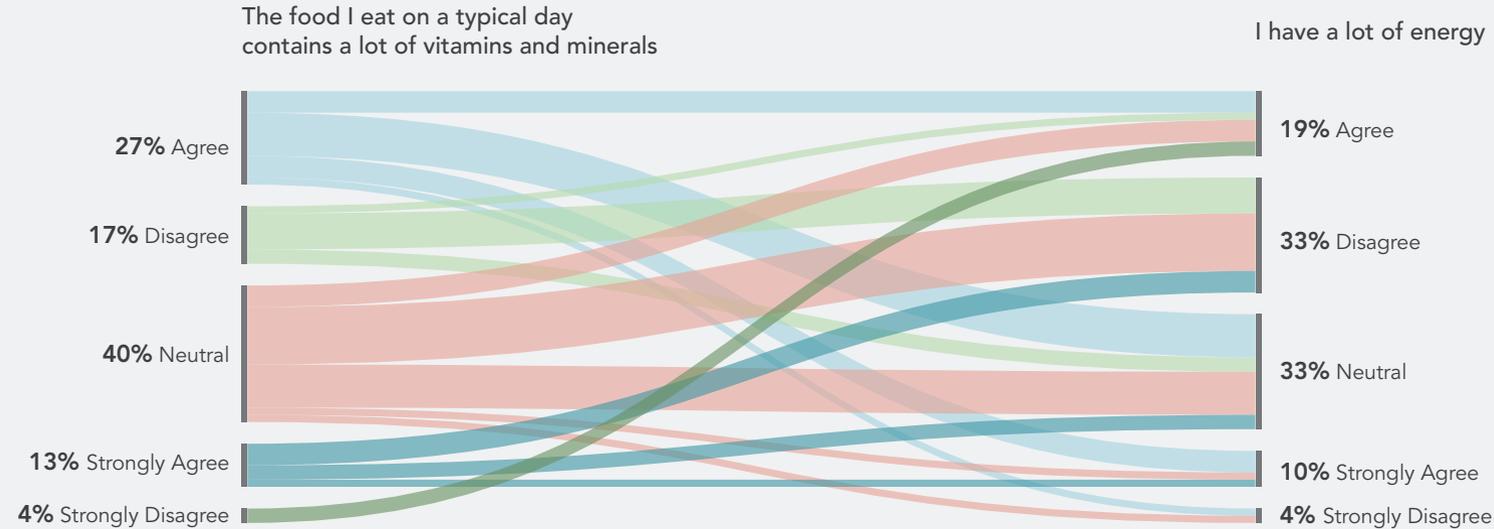
in the morning, and 40% (n=19) disagreed or strongly disagreed with this statement.

58% (n=28) agreed or strongly agreed that they feel positive and optimistic, and 17% (n=8) disagree or strongly disagree with this statement.

48% (n=23) agree or strongly agree that they feel motivated to complete daily tasks, and 23% (n=11) disagree or strongly disagree with this statement.

## Students, Vitamin & Mineral Intake, and Energy Levels

n= 48



This section is meant to show the relationship between eating food that contains vitamins and minerals and typical energy level among respondents who identified as either part-time or full-time students.

Of the 48 individuals who identified as students and who responded to these questions, 40% (n=19) agree or strongly agree that they typically eat food that contains a lot of vitamins and minerals. Of these 19 individuals, 37% (n=7) also agreed or strongly agreed that they have a lot of energy. Of these 19 individuals, 21% (n=4) disagreed or strongly disagreed that

they have a lot of energy. The remaining 42% (n=8) answered neutral in regards to having a lot of energy. Of the 48 individuals who identified as students, 21% (n=10) disagree or strongly disagree that they typically eat food that contains a lot of vitamins and minerals. Of these 10 individuals, 30% (n=3) agree or strongly agree that they have a lot of energy. Of these 10 individuals, 50% (n=5) disagree or strongly disagree that they have a lot of energy. The remaining 20% (n=2) answered neutral in regards to having a lot of energy.

This does not explain a correlation, it just shows the overlap in the ways respondents answered these two questions.

## Students, Difficulty Accessing Healthy Foods, & Nutritious Foods Consumption

n= 48



This graph is exploring the relationship between students, how difficult it is for them to access healthy foods, and how nutritious the food they do consume is.

Of the 48 individuals who identified as students, 12% (n=6) agree or strongly agree that it is difficult for them to obtain healthy foods. Of these 6 individuals, 50% (n=3) also agreed or strongly agreed that the food they eat is nutritious. Of these 6 individuals, none disagreed or strongly disagreed that the food they eat is nutritious. The remaining 50% (n=3) responded neutral in regards to the food they eat everyday being nutritious.

Of the 48 individuals who identified as students, 65% (n=31) disagreed or strongly disagreed that it is difficult for them to obtain healthy foods. Of these 31 individuals, 68% (n=21) agreed or strongly agreed that the food they eat is nutritious. Of these 31 individuals, 10% (n=3) disagreed or strongly disagreed that the food they eat is nutritious. The remaining 22% (n=7) responded neutral in regards to the food they eat everyday being nutritious.

This does not explain a correlation, it just shows the overlap in the ways respondents answered these two questions.

# CONCLUSION

Although this was a very homogeneous sample size, mainly consisting of participants who live in the Northeast region of the United States and identify as female, and White, many different results were found.

## EATING HABITS & BEHAVIORS

Among individuals in this study, many do not seem to consume enough fruits and vegetables. Only 16% of respondents eat 3 or more servings of fruit per day, and only 35% of respondents eat 3 or more servings of vegetables per day. 54% of respondents agree or strongly agree that they eat foods that help them cope with stress and 63% agree or strongly agree that they eat food that makes them feel good. It is not

specified what types of foods these items are. 87% of respondents agree or strongly agree that they eat food that is easily available close to where they live, and 50% agree or strongly agree that the food they eat is not expensive. 53% of respondents said that they typically eat food that contains a lot of vitamins and minerals, and 63% said the food they eat is nutritious.

## ACCESSIBILITY

Surprisingly, only 8% (n=9) of respondents agreed or strongly agreed that it was difficult for them to obtain healthy foods. 70% (n=84) disagreed or strongly disagreed with this statement. Although only a small sample size of participants agreed or strongly agreed

that it is difficult for them to obtain healthy foods, 11% (n=1) lives in a suburb near a large city, 44% (n=4) live in a small city or town, 11% (n=1) lives in a rural area, and 33% (n=3) live in a large city.

## MOTIVATION AND DETERRENTS

The top three motivators to eat healthy include overall physical health (51%, n=61), to lose weight (21%, n=25), and for overall mental health (12%, n=14). 93% (n=110) of respondents agreed or strongly agreed that they want to improve the quality of their lives by eating healthy foods, and 84% (n=99) of respondents disagree or strongly disagree that it does not matter whether they eat healthy foods or not.

69% (n=79) agree or strongly agree that they eat healthy foods as a form of prevention, and 93% (n=107) agree or strongly agree that they eat healthy foods because they believe that there are strong connections between overall health and diet. In general, individuals seem to be aware of the benefits of eating healthy foods, enjoy eating healthy foods, and are motivated to eat engage in healthy eating behaviors.

The top three deterrents to eating healthy are inconvenience or lack of time (37%, n=44), expensive cost (22%, n=26), and lack of motivation (18%, n=22).

### WELL-BEING

It was found that 28% (n=32) agree or strongly agree that they have a lot of energy, 65% (n=74) agree or strongly agree that they often feel tired, and 48% (n=55) agree

or strongly agree that they feel positive and optimistic.

Of the 76 (67%) participants who either agreed or strongly agreed that they typically eat food that is nutritious, 34% (n=26) agreed or strongly agreed that they have a lot of energy. Of these same 76 participants, 32% (n=24) disagreed or strongly disagreed that they have a lot of energy.

Of the 64 (56%) participants who either agreed or strongly agreed that they typically eat food that contains a lot of vitamins and minerals, 53% (n=34) agreed or strongly agreed that they felt positive or optimistic. Of the same 64 participants who eat food that contains a lot of vitamins and minerals, 19% (n=12) disagree or strongly disagree that they feel positive and optimistic.

A more in-depth analysis would have to be done to measure whether there is a correlation between the types of foods that people consume and measurements of well-being.

### COLLEGE STUDENTS

Many factors influence the eating habits of college students. It was found that 71% (n=37) disagree or strongly disagree that the food they eat contains only natural ingredients, 48% (n=25) disagree or strongly disagree that they eat food that is low in calories, and 94% (n=49) agree or strongly agree that they eat food that tastes good.

0% (n=23) agree or strongly agree that they eat food that contains a lot of vitamins and minerals, and 58% (n=33) agree or strongly agree that the food they eat is nutritious.

Of the 48 students who responded to questions on fruit and vegetable intake, the majority of students eat 1-2 servings of fruit or vegetables per day. 67% (n=32) eat 1-2 servings of fruit per day, and 73% (n=35) eat 1-2 servings of vegetables per day.

For college students, it is important for food to be easily obtainable and quick to prepare and cook, in addition to being cheap.

It is also interesting to note that of the 9 individuals from the entire sample size that either agreed or strongly agreed that they had difficulty obtaining healthy food, 7 of those 9 individuals were students.

Among all students (n=48), the top three reasons for wanting to eat healthy include, for overall physical health (58%, n=28), to lose weight (14%, n=7), and to prevent future health problems (12%, n=6).

Among all students (n=48), the top three deterrents to eating healthy foods include inconvenience or lack of time (30%, n=16), lack of healthy foods available near me (21%, n=10), and lack of motivation to eat healthy foods (19%, n=9).

Questions on college students and well-being found mixed results. 29% (n=14) agreed or strongly agreed that they have a lot of energy, 67% (n=32) agreed or strongly agreed that they often feel tired, 58% (n=28) agreed or strongly agreed that they feel positive and optimistic, and 48% (n=23) agree or strongly agree that they feel motivated to complete daily tasks.

### SUMMARY

Although this study consists mainly of descriptive statistics, this information can provide insight into facts, patterns, behaviors of individuals' eating habits, motiva-

tions, and general lifestyle regarding food consumption. Looking at the way specific groups answered questions can provide a closer look at the ways different groups are behaving. For example, looking at the behaviors of college students showed more detailed results, as compared to the whole sample size. Breaking down the group of college students even further to students who lived in a college dorm showed more detailed information on things like access to healthy foods and the way these students' accessibility may be different than other students'. This detailed look at different groups may provide important insight, which can lead to institutional change and growth.

Overall, this study provided a broad, general overview of the type of food that is consumed, what motivates them to do so, and how their general well-being is.

# NOTE

Avenir Lt Std is used in various weights and sizes throughout this booklet, specifically in the body text and in different charts and graphs as numbers and labels.

Raleway is also used in various weights and sizes throughout this booklet, specifically as section headers, question titles, and in different charts and graphs.

Both of these typefaces provide a sleek and modern look that reads clearly at all sizes. The variability of weights provided many options that worked well in all sizes, ranging from small charts to section headers.

This project serves as a requirement for a year-long senior thesis project for the

Graphic Design BFA program at The State University of New York at New Paltz. The survey discussed was approved by the SUNY New Paltz HREB. All content was generated and designed by Danielle Kruchow. Information from scholarly articles are cited in-text, and the references can be found at the end of this booklet.

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