

Are There Any Relationships Between the Results of the  
Myers-Briggs Type Inventory and Dietary Habits?

Lisa M. Hathaway

Indiana State University

### **Abstract**

With an amalgamation of great interest in Myer-Briggs type theory, a nearly untouched area of research, and the need for psychological savvy in nutrition and dietetics, this study sought to determine any correlations that exist between results of the Myers-Briggs Type Inventory and dietary habits. If they exist, to what extent do they correlate? Data gathering was conducted via electronic survey. The following central research questions guided the composition of the survey: Do certain Myers-Briggs letters and/or types tend towards any certain dietary lifestyle? What does a person take into account when making food and intake choices when related to Myers-Briggs typology? Do certain types charge themselves with following healthy diets, whether real or perceived? Does one's type predispose you to certain dietary habits? Some of the overarching results indicate that regardless of personality type, most individuals must consume fast food with at least a small degree of regularity. Additionally, across types and letters, purchase decisions are made based on a finicky balance of reasonable price and nutritional worth. However, through analysis and comparison of the Body Mass Indexes of judgers (J) versus perceivers (P), it was discovered that the average BMI of a J type (25.17) is less than the average BMI of a P (27.81). In light of the research limitations and inconclusive results, this investigation has unlocked the door to future, more in-depth examination of Myers-Briggs Type Indicator<sup>®</sup>, typology, and nutrition.

*Key words:* Myers-Briggs, nutrition, dietetics, personality psychology, interdisciplinary

## Introduction

### *Background*

“You are what you eat.” It is an adage as familiar as it is lighthearted. But has anyone considered turning the phrase around? “You eat because you are.” My honors thesis examines the relationships between dietetics and personality psychology through the lens of the Myers-Briggs Type Indicator®, or MBTI®.

Myers-Briggs has piqued my interest since my first exposure to it as a junior in high school. It was part of a new requirement for juniors: taking the Naviance test. Naviance is a battery that assesses students using not only MBTI, but several other sieves of personality and character. At the end, the program determines a list of career options that allegedly would best fit the participant. That career list is preceded by a debriefing of one’s personality results. Upon reading my four Myers-Briggs letters for the first time, I was astounded. It described me as an INFJ. I did not identify as an introvert. At that point in time, I believed, as many do, that introverts hide away in dark corners, avoiding human contact at any cost. I saw introversion as more of a phobia than a personal preference. My English teacher, peering over my shoulder at the time, agreed aloud: “That’s spot on for you, Lisa.” Deciding that this situation warranted a statistically significant consensus, I consulted my friends with psychology savoir-faire, and they concurred, too. At that point, I wanted to learn more about this personality battery. And learn I did; MBTI and typing transformed into a hobby. Personality inventory is to me, as fishing or stamp-collecting is to others.

However, Myers-Briggs goes beyond the status of a simple hobby. My typing of acquaintances, friends, family, and even professors, shapes my approach towards them; awareness of their “letters” allows me to communicate and interact more efficiently. Myers-Briggs magnifies my innately small quota of patience because I understand how and why a person will think and act.

More recently, personality psychology and Myers-Briggs have become academically and professionally relevant. Dietetics as a field is heavily psychological. All dietetics students take at least one course dedicated to psychological theory, counseling, and education. In a 2008 review of the effectiveness of dietetics interventions, Baldwin, Weekes, and Campbell addressed the need for an even stronger psychological

component in RD dietary counseling. Rapoport (1998) identified cognitive behavioral therapy as the gold standard for obesity treatment. With such demands for psychological savvy, this investigation could benefit dietitians by providing an alternative or supplemental tool for practice.

### ***Orientation to Myers-Briggs Theory***

The Myers-Briggs Type Indicator<sup>®</sup>, shortened to MBTI<sup>®</sup>, is a personality inventory that manifests C. G. Jung's theory of psychological types. Its fame and utilization, especially in certain corners of the web, has boomed within the last few years. Jung speculated that the majority of the outwardly unsystematic variation in everyday behavior is, in fact, quite orderly and consistent. This order stems from basic differences in preferences for perception and judgment between individuals (Myers, McCaulley, Quenk, & Allen, 1985). Jung's research took place primarily in the 1920s. Perception, as defined by The Myers-Briggs Foundation, "involves all the ways of becoming aware of things, people, happenings, or ideas" (2015). Conversely, "judgment involves all the ways of coming to conclusions about what has been perceived." The Myers-Briggs Foundation continues, "if people differ systematically in what they perceive and in how they reach conclusions, then it is only reasonable for them to differ correspondingly in their interests, reactions, values, motivations, and skills."

Katharine Briggs and her daughter Isabel Briggs Myers developed the MBTI instrument during the 1940s and 50s. They published their first edition in 1962. With the instrument, the mother-daughter team successfully allowed laypersons to understand and implement type theory in daily life. Briggs and Briggs Myers created a user-friendly inventory that acts like a quiz and yields intelligible data. The resulting four letters comprise the code for one's personality type. There are sixteen types total (ESTJ, ESTP, ESFJ, ESFP, ENFJ, ENFP, ENTP, ENTJ, ISTJ, ISTP, ISFJ, ISFP, INFJ, INFP, INTP, INTJ). Each letter represents a preference and each preference is dichotomized. The following definitions of the dichotomies come directly from *The MBTI<sup>®</sup> Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator<sup>®</sup>*:

Favorite world: Do you prefer to focus on the outer world or on your own inner world? This is called Extraversion (E) or Introversion (I).

Information: Do you prefer to focus on the basic information you take in or do you prefer to interpret and add meaning? This is called Sensing (S) or Intuition (N).

Decisions: When making decisions, do you prefer to first look at logic and consistency or first look at the people and special circumstances? This is called Thinking (T) or Feeling (F).

Structure: In dealing with the outside world, do you prefer to get things decided or do you prefer to stay open to new information and options? This is called Judging (J) or Perceiving (P) (1985).

As a disclaimer to readers: all types are different, but equal. This means that no one type, letter cluster, or reference pair letter is better than its counterpart. The instrument merely indicates preference. It does not measure ability, character, or talent.

### ***Criticism of MBTI***

Many experts have provided valid counterpoints to the Myers-Briggs typology. A major pitfall of most personality inventories is false-reporting. Individuals will select responses that correspond with what they consider to be the most desirable traits. Boyle (1995) points out that without a validity scale, participants are free to fake their responses.

Pittenger (1993) reveals some of the more systematic incongruities in Myers-Briggs. Pittenger's retesting demonstrates that the standard error of measure for each of the four traits is relatively large, but that the MBTI scoring method hides this error. Because of the cut-and-dry dichotomy, even individuals with raw scores only one point apart could wind up with different letters in that reference pair. He says, "Although some users of the MBTI try to interpret how close the score is to the cutoff, this practice is inconsistent with the theory of the MBTI" (1993, p. 4). The dichotomies are at the heart of this method of personality typing.

### ***The Known***

Linking dietary habits with personality is not unbroken ground. Many researchers share an interest in exploring this relationship and have published about different diet to character connections. In 2014, Ashton, Pilkington, and Lee examined an association between having a "sweet" personality and liking sweet foods,

using a combination of self and observer reports of personality. Self-reports resulted in a .15 correlation and .10 with observer reports.

Personality factors that predict enjoyment of spicy foods were investigated by Byrnes and Hayes. In this 2013 study, they named Sensation Seeking, Sensitivity to Reward, and Sensitivity to Punishment as three collaborative traits. Haynes and Byrnes explain:

Present data indicate individuals who enjoy spicy foods exhibit higher Sensation Seeking and Sensitivity to Reward traits. Rather than merely showing reduced response to the irritating qualities of capsaicin as might be expected under the chronic desensitization hypothesis, these findings support the hypothesis that personality differences may drive differences in spicy food liking and intake (2013).

Other reports of correlations between diet and individual traits will be addressed in the analyses of my research questions and their respective results.

### ***The Unknown***

Given the demonstrated relationship between psychological preferences and many aspects of behavior, including diet, it stands to reason that casual relationships and patterns among letters, letter clusters, and the sixteen types have emerged. Practitioners and researchers, myself included, have hypothesized about these associations, oftentimes accurately predicting statements about a person or their actions based on type theory.

This abundance of informal relationships warrants specific research on Myers-Briggs types and nutrition. Do certain letters, letter clusters or types make up the majority of meat-lovers? Does a certain letter type from a reference pair grocery shop in a particular way? Could I predict part or all of a patient's Myers-Briggs type by their diagnosis and History and Physical in a chart? I had infinite thoughts and opinions regarding these questions and many more, but I could merely speculate. Only hard evidence and analysis could prove or disprove my ideas. The opportunity for proper research arose when it came time to decide on a topic for GH 401. The convergence of two of my passions, nutrition and personality psychology, provided the perfect subject matter for a thesis.

### *The Thesis Question*

Although many lines have been drawn between traits and food-related behaviors, no documented research exclusively investigates diet and intake with the MBTI. I want to discover any correlations that exist between results of the Myers-Briggs Type Indicator and dietary habits. If they exist, to what extent? The main thesis question divides into four question subsets, and then into six survey questions.

My first area of investigation is: Do certain letters and/or types tend towards any definite dietary lifestyle? This question would be addressed by simply asking “with what diet do you identify best?” This question aims to uncover any alignments between overall dietary lifestyle and certain types or letters. The question also stages a cross-section of the population sample.

What does a person take into account when making food and intake choices as related to Myers-Briggs typology? This secondary question was partitioned further into three more focus questions to be used in the survey. Would any MBTI letters and/or types value healthiness of a food more than the palate pleasure provided by fat, sugar, and salt and vice versa? Because fast food is the heuristic of unhealthy food, I would ask participants about the frequency with which they eat fast food. What motive drives certain types and/or letters to eat at restaurants versus eating at home? What about more basic food choices? How do types and/or letters choose their groceries- especially kitchen staples like bread? How deeply do the reference pair dichotomies impact these everyday decisions?

Salad is widely regarded as one of the healthiest entrées. However, salads can be quickly adulterated with dressings, meats, cheeses, etc. Additionally, many individuals believe that by consuming salad, they can feign a healthy lifestyle. Do certain types charge themselves with following healthy diets, whether real or perceived?

I also wanted to know about more personal diet habits with respect to Myers-Briggs. Do specific types and/or letters prefer to cook for themselves? What could motivate them to cook? I have also noticed that only certain kinds of people honestly forget to eat. Does one’s Myers-Briggs letters predispose them to forgetting to eat? With what frequency?

### ***The Investigation At-a-Glance***

I began this examination with a literature review. I looked for publications with research questions identical or similar to my own. Any data that involved Myers-Briggs type theory would provide a reference for critical comparison of my results. Related research, on the other hand, offered supplemental insight and the capacity to disprove my hypotheses, or help me to defend them.

The nature of my research questions requires answers from the public, so I developed a survey that could be rapidly distributed. Because my main thesis problem is so encompassing, I created sub-questions. Needless to say, I found myself profoundly limited in what I could ask. Therefore, each question (questions 3-8 in the actual survey) corresponds with one of my four secondary research questions. The first two questions in the survey accrue demographic and background data from each participant. I asked for age, gender, highest level of education achieved or currently seeking, and four-letter Myers-Briggs type.

### ***Summary***

This honors thesis will inspect the relationships between nutrition and personality psychology through Myers-Briggs typology theory. The investigation focuses on the following questions: Do certain letters and/or types tend towards any certain dietary lifestyle? What does a person take into account when making food and intake choices when related to Myers-Briggs typology? Do certain types charge themselves with following healthy diets, whether real or perceived? Does one's Myers-Briggs type predispose you to certain dietary habits? The data will be gathered via electronic survey.

Despite its many shortcomings, I do believe that the Myers-Briggs Type Inventory has an abundance of uses, uses that have potential to extend into the field of dietetics.

## **Introduction to the Results**

### ***Data Gathering Methods***

First, I sought out peer-reviewed and some non-peer-reviewed research similar to mine. EBSCO Host, Google Scholar, and eatright.org served as the principal databases for my literature review. I used combinations of “diet, dietary, eating, diet habits, dietary habits, eating habits, nutrition, consumption, intake, or intake habits,” with “personality, characteristics, personality psychology, MBTI, Myers-Briggs, personality traits, or traits” to find publications.

I selected articles based on relevance to my thesis, personal interest, and/or applicability to one or more of my research questions. I paraphrased each abstract or article in a separate word document and integrated the data into my outline and results as needed.

The survey (appendix A) was developed with the Qualtrics platform. Free-text response questions gathered pertinent demographic information: age, gender, height in inches, weight in pounds, highest level of education sought or achieved, and four-letter Myers-Briggs type. The survey was transmitted via Facebook, word-of-mouth, and email. My parents sent out the survey to their entire email address books, thus exponentially, although simultaneously finitely, increasing and diversifying my investigated population. Data was collected for approximately five months.

Using analytical programming within Qualtrics and Excel, I organized all the information gathered, converted height and weight into metric units of centimeters and kilograms, and calculated the BMI for each participant. The BMI, or Body Mass Index, measures one’s mass divided by their height, historically as  $\text{kg/m}^2$ . This measurement attempts to define the amount and type of bodily tissue, such as bone, muscle, or adipose, and to subsequently characterize the individual as underweight ( $<18.5$ ), normal weight (18.5-25), overweight (25-29), or obese ( $\geq 30$ ). As obesity has increased in prevalence, auxiliary classes of obesity have been delineated, such as the relatively new category of extreme obesity, exemplified by Figure 1.

| Body Mass Index Table |                      |     |     |     |     |            |     |     |     |     |       |     |     |     |     |                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------|----------------------|-----|-----|-----|-----|------------|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|                       | Normal               |     |     |     |     | Overweight |     |     |     |     | Obese |     |     |     |     | Extreme Obesity |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BMI                   | 19                   | 20  | 21  | 22  | 23  | 24         | 25  | 26  | 27  | 28  | 29    | 30  | 31  | 32  | 33  | 34              | 35  | 36  | 37  | 38  | 39  | 40  | 41  | 42  | 43  | 44  | 45  | 46  | 47  | 48  | 49  | 50  | 51  | 52  | 53  | 54  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Height (inches)       | Body Weight (pounds) |     |     |     |     |            |     |     |     |     |       |     |     |     |     |                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 58                    | 91                   | 96  | 100 | 105 | 110 | 115        | 119 | 124 | 129 | 134 | 138   | 143 | 148 | 153 | 158 | 162             | 167 | 172 | 177 | 181 | 186 | 191 | 196 | 201 | 205 | 210 | 215 | 220 | 224 | 229 | 234 | 239 | 244 | 248 | 253 | 258 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 59                    | 94                   | 99  | 104 | 109 | 114 | 119        | 124 | 128 | 133 | 138 | 143   | 148 | 153 | 158 | 163 | 168             | 173 | 178 | 183 | 188 | 193 | 198 | 203 | 208 | 212 | 217 | 222 | 227 | 232 | 237 | 242 | 247 | 252 | 257 | 262 | 267 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 60                    | 97                   | 102 | 107 | 112 | 118 | 123        | 128 | 133 | 138 | 143 | 148   | 153 | 158 | 163 | 168 | 174             | 179 | 184 | 189 | 194 | 199 | 204 | 209 | 215 | 220 | 225 | 230 | 235 | 240 | 245 | 250 | 255 | 261 | 266 | 271 | 276 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 61                    | 100                  | 106 | 111 | 116 | 122 | 127        | 132 | 137 | 143 | 148 | 153   | 158 | 164 | 169 | 174 | 180             | 185 | 190 | 195 | 201 | 206 | 211 | 217 | 222 | 227 | 232 | 238 | 243 | 248 | 254 | 259 | 264 | 269 | 275 | 280 | 285 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 62                    | 104                  | 109 | 115 | 120 | 126 | 131        | 136 | 142 | 147 | 153 | 158   | 164 | 169 | 175 | 180 | 186             | 191 | 196 | 202 | 207 | 213 | 218 | 224 | 229 | 235 | 240 | 246 | 251 | 256 | 262 | 267 | 273 | 278 | 284 | 289 | 295 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 63                    | 107                  | 113 | 118 | 124 | 130 | 135        | 141 | 146 | 152 | 158 | 163   | 169 | 175 | 180 | 186 | 191             | 197 | 203 | 208 | 214 | 220 | 225 | 231 | 237 | 242 | 248 | 254 | 259 | 265 | 270 | 278 | 282 | 287 | 293 | 299 | 304 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 64                    | 110                  | 116 | 122 | 128 | 134 | 140        | 145 | 151 | 157 | 163 | 169   | 174 | 180 | 186 | 192 | 197             | 204 | 209 | 215 | 221 | 227 | 232 | 238 | 244 | 250 | 256 | 262 | 267 | 273 | 279 | 285 | 291 | 296 | 302 | 308 | 314 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 65                    | 114                  | 120 | 126 | 132 | 138 | 144        | 150 | 156 | 162 | 168 | 174   | 180 | 186 | 192 | 198 | 204             | 210 | 216 | 222 | 228 | 234 | 240 | 246 | 252 | 258 | 264 | 270 | 276 | 282 | 288 | 294 | 300 | 306 | 312 | 318 | 324 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 66                    | 118                  | 124 | 130 | 136 | 142 | 148        | 155 | 161 | 167 | 173 | 179   | 186 | 192 | 198 | 204 | 210             | 216 | 223 | 229 | 235 | 241 | 247 | 253 | 260 | 266 | 272 | 278 | 284 | 291 | 297 | 303 | 309 | 315 | 322 | 328 | 334 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 67                    | 121                  | 127 | 134 | 140 | 146 | 153        | 159 | 166 | 172 | 178 | 185   | 191 | 198 | 204 | 211 | 217             | 223 | 230 | 236 | 242 | 249 | 255 | 261 | 268 | 274 | 280 | 287 | 293 | 299 | 306 | 312 | 319 | 325 | 331 | 338 | 344 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 68                    | 125                  | 131 | 138 | 144 | 151 | 158        | 164 | 171 | 177 | 184 | 190   | 197 | 203 | 210 | 216 | 223             | 230 | 236 | 243 | 249 | 256 | 262 | 269 | 276 | 282 | 289 | 295 | 302 | 308 | 315 | 322 | 328 | 335 | 341 | 348 | 354 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 69                    | 128                  | 135 | 142 | 149 | 155 | 162        | 169 | 176 | 182 | 189 | 196   | 203 | 209 | 216 | 223 | 230             | 236 | 243 | 250 | 257 | 263 | 270 | 277 | 284 | 291 | 297 | 304 | 311 | 318 | 324 | 331 | 338 | 345 | 351 | 358 | 365 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 70                    | 132                  | 139 | 146 | 153 | 160 | 167        | 174 | 181 | 188 | 195 | 202   | 209 | 216 | 222 | 229 | 236             | 243 | 250 | 257 | 264 | 271 | 278 | 285 | 292 | 299 | 306 | 313 | 320 | 327 | 334 | 341 | 348 | 355 | 362 | 369 | 376 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 71                    | 136                  | 143 | 150 | 157 | 165 | 172        | 179 | 186 | 193 | 200 | 208   | 215 | 222 | 229 | 236 | 243             | 250 | 257 | 265 | 272 | 279 | 286 | 293 | 301 | 308 | 315 | 322 | 329 | 338 | 343 | 351 | 358 | 365 | 372 | 379 | 386 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 72                    | 140                  | 147 | 154 | 162 | 169 | 177        | 184 | 191 | 199 | 206 | 213   | 221 | 228 | 235 | 242 | 250             | 258 | 265 | 272 | 279 | 287 | 294 | 302 | 309 | 316 | 324 | 331 | 338 | 346 | 353 | 361 | 368 | 375 | 383 | 390 | 397 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 73                    | 144                  | 151 | 159 | 166 | 174 | 182        | 189 | 197 | 204 | 212 | 219   | 227 | 235 | 242 | 250 | 257             | 265 | 272 | 280 | 288 | 295 | 302 | 310 | 318 | 325 | 333 | 340 | 348 | 355 | 363 | 371 | 378 | 386 | 393 | 401 | 408 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 74                    | 148                  | 155 | 163 | 171 | 179 | 186        | 194 | 202 | 210 | 218 | 225   | 233 | 241 | 249 | 256 | 264             | 272 | 280 | 287 | 295 | 303 | 311 | 319 | 326 | 334 | 342 | 350 | 358 | 365 | 373 | 381 | 389 | 396 | 404 | 412 | 420 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 75                    | 152                  | 160 | 168 | 176 | 184 | 192        | 200 | 208 | 216 | 224 | 232   | 240 | 248 | 256 | 264 | 272             | 279 | 287 | 295 | 303 | 311 | 319 | 327 | 335 | 343 | 351 | 359 | 367 | 375 | 383 | 391 | 399 | 407 | 415 | 423 | 431 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 76                    | 156                  | 164 | 172 | 180 | 189 | 197        | 205 | 213 | 221 | 230 | 238   | 246 | 254 | 263 | 271 | 279             | 287 | 295 | 304 | 312 | 320 | 328 | 336 | 344 | 353 | 361 | 369 | 377 | 385 | 394 | 402 | 410 | 418 | 426 | 435 | 443 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Source: Adapted from Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.

Figure 1. Body Mass Index Table. Anthropometric reference that quickly identifies BMI based on height and weight. Source: [https://www.nhlbi.nih.gov/health/educational/lose\\_wt/BMI/bmi\\_tbl.pdf](https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_tbl.pdf) (1998).

Unfortunately, the BMI measurement tends to overestimate the adiposity of an individual. For example, a very muscular athlete would actually weigh more than a less muscular individual with identical stature and surface area. This is because lean body mass, or muscle and bone, weighs more than fat tissue. The lack of tissue distinction has decreased the validity of the BMI in the minds of many clinicians- including myself. Despite its shortcomings, however, it still serves as an indicator of the presence and/or potentiality of nutrition-related ailments.

Apart from my limitations in number and depth of survey question, some participants did not follow directions listed in the first screen of the survey. Therefore, I had to filter out many respondents. Although 190 individuals started the survey, only 119 completed the survey and completed it correctly. The method of survey distribution inherently skewed the results to emphasize adolescents seeking bachelors’ degrees. Another intrinsic limitation to my research is that the majority of those who took my survey had at least one letter in common with my type, meaning an I, N, F, or J. This is likely due to the normal phenomenon of a

person surrounding themselves with people similar to them, or gradually change to become more like those with whom they associate. My friends heavily populated my pool of participants.

***Precursory Data***

The data in Table 1 come from the initial free-text questions. Please refer to appendix B for Table 1; it is not included in the main body of the paper due to its length. I yielded a gross total of 190 survey participants, with a net total of 119 (correctly completed quizzes, 16 yrs+). Figure 2 visualizes the relationship of the frequency of each personality type to the other 15.

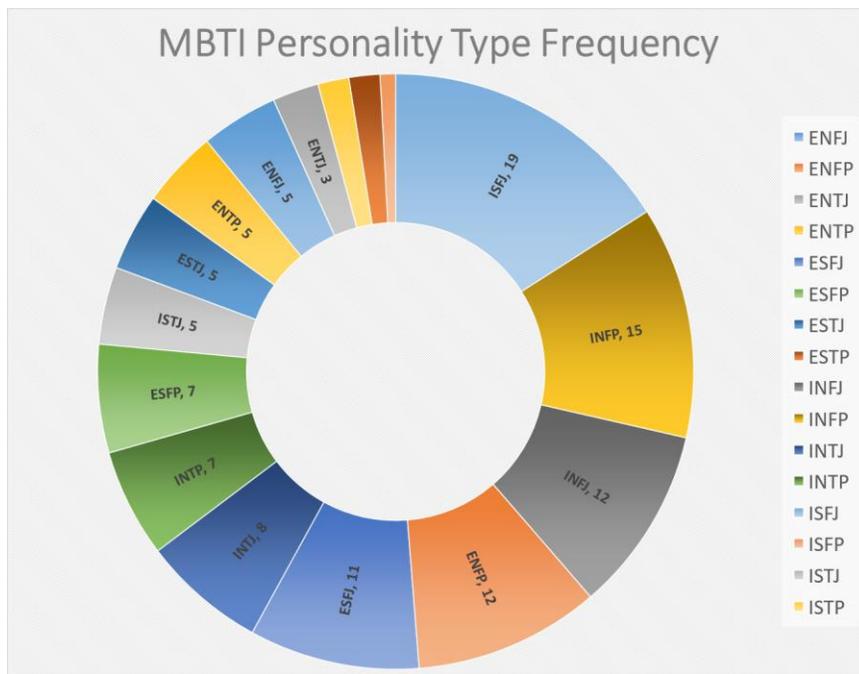


Figure 2. MBTI Personality Type Frequency. The numerical value of each Myers-Briggs type in relation to the total respondents (119).

Another piece of precursory data is the most popular response for each question (table 1). This provides a quick look at the selected options as a general consensus.

| Question #        | 3        |     | 4            |     | 5                    |     | 6   |     | 7             |     | 8                          |     | Number of respondents from which % is derived |
|-------------------|----------|-----|--------------|-----|----------------------|-----|-----|-----|---------------|-----|----------------------------|-----|---|
| Dichotomy         |          |     |              |     |                      |     |     |     |               |     |                            |     |   |
| <b>Extravert</b>  | Omnivore | 75% | Almost never | 45% | Almost never         | 35% | \$2 | 33% | More than     | 41% | About once                 | 38% | 49  |
| <b>Introvert</b>  | Omnivore | 62% | 1-3x per mo. | 49% | Seldom, occasionally | 32% | \$2 | 38% | 1-3x per mo.  | 30% | About once                 | 32% | 72  |
| <b>Sense</b>      | Omnivore | 67% | 1-3x per mo. | 41% | Almost never         | 47% | \$2 | 29% | More than     | 43% | About once                 | 43% | 49  |
| <b>iNtuition</b>  | Omnivore | 68% | 1-3x per mo. | 41% | Occasionally         | 38% | \$2 | 39% | 1x a week     | 28% | Love to go out             | 38% | 74  |
| <b>Thinking</b>   | Omnivore | 68% | 1-3x per mo. | 38% | Occasionally         | 32% | \$2 | 29% | 1x, more than | 29% | Prefer to, about once      | 26% | 35  |
| <b>Feeling</b>    | Omnivore | 68% | 1-3x per mo. | 40% | Occasionally         | 34% | \$2 | 38% | More than     | 33% | Love to go out, about once | 33% | 84  |
| <b>Percieving</b> | Omnivore | 71% | 1-3x per mo. | 37% | Occasionally         | 39% | \$2 | 33% | More than     | 29% | Love to go out             | 33% | 51  |
| <b>Judging</b>    | Omnivore | 66% | 1-3x per mo. | 41% | Seldom               | 37% | \$2 | 35% | More than     | 32% | About once                 | 35% | 69  |

Table 1. Question 3 – Popularity by Percentages. The majority response of each letter measured as a percent of total number of respondents with that particular letter dichotomy.

## Data and Discussion

### **Diet Alignment**

*With which diet do you best identify?*

Because the fourth reference pair of P (perceiving) versus J (judging) shows how an individual favors to interact with the world, it conveys how they want to be identified. The perceivers interact with the world by taking in sensible information; they appreciate tangibility. Consumption of animals is the result of death and destruction of that tangible world. Therefore, I predicted that, overall, more P types will identify as part of the vegetarian spectrum. On the other hand, I also said there will be a greater concentration of J types in the vegan category. Judgers desire external organization and structure. They want decisiveness and control. The vegan lifestyle manifests total control over one's intake. To sustain veganism, one must have abundant self-control in order to totally avoid animal products, plan meals, come prepared, and, ultimately, enjoy their diet. I also foresee more F types in the vegetarian spectrum. Feelers prefer to make decisions based on values, harmony, and the "greater good." Feeling corresponds to agreeableness, Keller and Siegrist report, and high agreeableness also corresponds to lower meat consumption (2015). From personal experience, I also predicted the vegetarians to be primarily female. Because ESFJ and ESTJ are the most common personality types, I forecasted that the majority will identify as omnivores.

I discovered that I was incorrect about the P types. Only one perceiving participant identified as lacto-ovo vegetarian and one other as pescatarian. I was correct regarding J types in the vegan category: The only identified vegan in my cohort is an INFJ. It must be taken into account, however, that INFJ is the rarest of all the personality types and veganism is the rarest of all dietary lifestyles. When looking exclusively at my study's subjects, however, the rarest personality type is ISFP.

The feelers dominated the vegetarian spectrum when compared with the total number of participants. Figure 3 show the diets with which the appropriate participants identify. The F types constitute the majority of the diets in the vegetarian spectrum: vegan, lacto-ovo, pescatarian, and flexitarian.

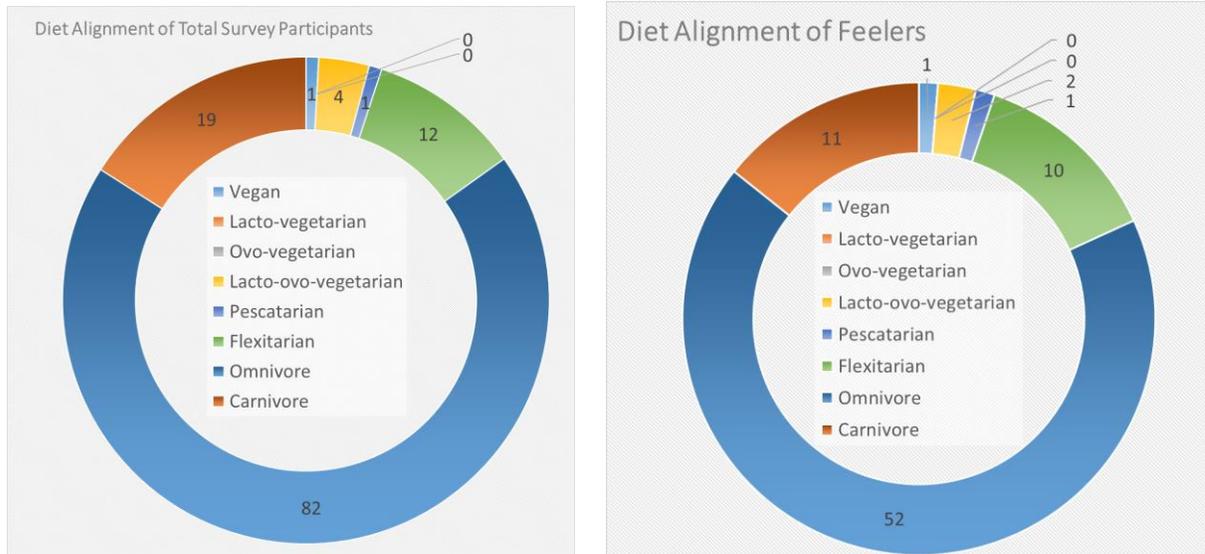


Figure 3. Question 3 – Diet Alignment of All Participants Compared with Diet Alignment of Feelers (xFxx types).

Hayley, Zinkiewicz, & Hardiman studied the relationships between values, attitudes, and meat consumption in Australians. In their 2015 report, they concluded that gender does not as heavily moderate these relationships as previously thought. In my survey, females comprise 100% of participants who identify as vegan to pescatarian. In spite of my results, I would have to agree with Hayley, Zinkiewicz, and Hardman as my sample is smaller and less varied.

I accurately predicted the “common personalities, common diets” results. 100% of ESTJ’s identify as omnivores, while the ESFJ majority identified as omnivore.

Additionally, I found that the majority of ENFJ’s consider their diet to be carnivorous in nature. All three ENTJs in the cohort identified with a different diet, flexitarian, omnivore, and carnivore, respectively. Furthermore, a couple of types exhibited a singular outlier. All INTJs align themselves with the omnivorous diet, save one lacto-ovo. Only one ESFJ identified as a carnivore, while the rest considered themselves omnivores.

### Nutritious or Delicious?

#### *Do you eat fast food?*

I projected that sensors and perceivers will eat fast food at higher rates because generally, fast food is high in sugar and fat, and therefore tasty. S types base decisions on what they can gather from their senses. Perceivers tend to lead less rigid lives, and would not mind eating fast food with greater frequency. J types will dominate the “almost never” category. Eating fast food is “unhealthy;” a judger strives to control what enters their body. Conscientiousness, a corresponding trait to judgement in the J/P dichotomy, predisposes J’s to having the innate ability to not consume sweet and savory foods, and of sugar-sweetened soft drinks, as discovered by Keller and Siegrist in a 2015 study.

From my results, I discovered that I incorrectly predicted the S types’ frequency of fast food intake: “1-3 times a month” was the most recorded response for sensors (figure 4). The only “almost every day” response came from an P, but due to such an isolated sample this outcome can only be noted.

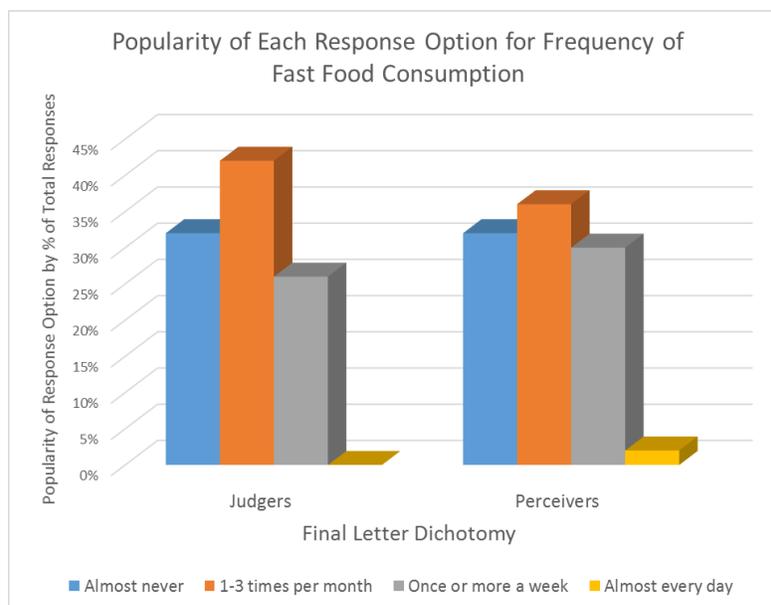


Figure 4. Question 4 – Popularity of Each Response Option for Frequency of Fast Food Consumption.

Eating fast food “1-3 times a month,” was the most popular answer for J types, followed by “almost never.” Since fast food is seldom fit for vegans, I isolated the vegan response: this person “almost never” eats fast food.

According to my cohort, no matter what, people sometimes need to eat fast food. “1-3 times a month” dominates across types and letters. In today’s on-the-go society, these results rings true in daily, casual observation as well as structured studies.

### **Forgotten Fare**

*For whatever reason, do you ever forget to eat?*

For single letter dichotomies, I predicted I types (introverts) and N types (iNtuitors) would frequently forget to eat. Cerebral affairs and abstract thought attract the attention of the introvert and the iNtuitor. However, if an iNtuitor is also a judger, I anticipated the J to overpower the N. Sensors will “almost never” forget to eat, since they would satiate their sense of hunger. I thought there might be many P types that will forget to eat, too, as they become consumed with various tasks simultaneously. Judgers, conversely, will forget to feed themselves less frequently because of their desire for organization and structure. Of all the letter clusters, I believed the xNxP types would innocuously neglect to feed themselves most often.

The response option that indicates the greatest frequency of forgetting to eat is “regularly.” 14% of the introverts, versus 4% of the extraverts forget to eat “regularly.” Ten of the iNtuitive individuals selected “regularly” forgetting to eat, versus two of the S types. One article refutes my hypothesis and results for introversion, but supports my hypothesis and results for iNtution versus sensing. Van den Bree, Przybeck, and Cloninger (2006) suggested that someone who is cold and aloof (low reward dependence)- related to introversion, and self-gratifying (low self-transcendence)- loosely linked to sensing, is more likely to exhibit greater susceptibility to hunger. The responses of sensors concur. The majority of S, 47%, “almost never” forget to eat (23 persons). Figure 5 exhibits the polar extremes of question five with the dichotomies of the Myers-Briggs preferences by showing the number of participants who selected “regularly” versus “almost never” according to Myers-Briggs preference letter. This provides the best point of reference for global interpretation of question five’s results.

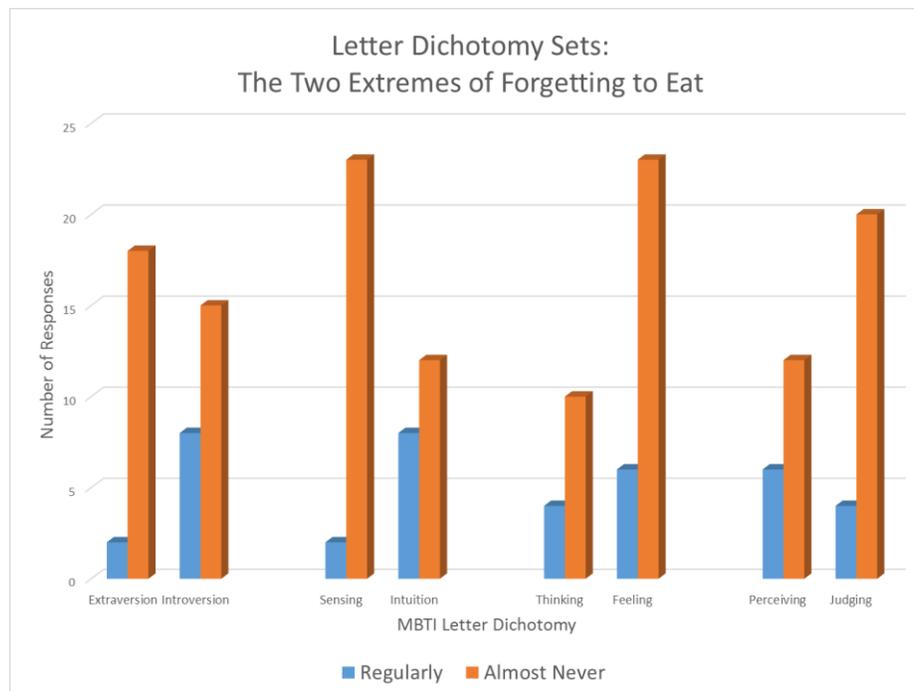


Figure 5. Question 5 – Letter Dichotomy Sets: The Two Extremes of Forgetting to Eat.

In the cohort, 36% of IxNx types, or 14 individuals, “occasionally” forget to eat. More of these types claim to “regularly” forget (18%, 7) than “almost never” (13%, 5). Conversely, the majority (11 individuals, 39%) of xNxJ types “seldom” forget to eat, whereas 15, the majority, of xNxP, 41%, “occasionally” forget to eat. This increase in forgetting to eat that follows with the specification of J over P may occur because highly conscientious people, such as judging type individuals practice regulatory dietary restraint and emotional self-control with eating habits (Keller & Siegrist, 2015). Furthermore, the majority of perceivers, 38%, “occasionally” forget to consume food.

Stipulating the second reference pair (S/N) as iNtuitive, the concentration increases to 41% of the individuals selecting “occasionally.” This I accurately predicted the inverse relationship of the iNtuitior’s deep thinking to remembering to eat.

### **Our Daily Bread**

*Which of these options appeals the most to you?*

In the western world, people can choose between thousands of food products. On a daily basis people come to more than 200 food-related decisions (Wansink & Sobal, 2007). For this query, three separate items

play into the response selections. Participants were asked: “Which of these options appeals the most to you?” and presented with four bread alternatives. Each loaf of bread has a distinct price, nutritional description, and primary point of origin. With this question, I aimed to identify the most highly valued characteristic of a food product in relation to certain types and/or letters. The complexity of the four response options offered the greatest opportunity for analysis. Each facet will be discussed as it pertains to dietary intake because I believe that those three facets are the most essential factors in the specific dietary habit of grocery shopping.

The Food Choice Questionnaire (FCQ), developed by Steptoe and colleagues in 1995, showed that the good taste, appearance, or smell of food was rated as the most essential drive for food selection. Renner, Sproesser, Strohbach, and Schupp identified that healthfulness of food items, the affordability, and convenience followed in importance, respectively (2012). They also discovered that the two least important food choice motives were ethical concerns and the familiarity of foods (2012). Despite the ethics category earning a low rating of importance, it still influences an individual’s grocery shopping decisions, and subsequently, their intake.

My predictions included only three ideas. Judgers and sensors, as independent letters, will each opt for the \$2 loaf of whole grain bread, as it offers the greatest concentration of nutrients. Feelers will go for the bread from a local bakery to promote localism and support their neighbors. A xxTJ will purchase the \$3 sprouted grain bread. I projected this outcome because the positions which xxTJ types tend to fill, such as CEO or physician, generally take home larger paychecks. They might already be shopping at a high end grocery store and will purchase the sprouted grain loaf at that store to save time. Alternatively, a T and J individual may cognize that sprouted grain has endured the least amount of processing, and therefore is the best option. Figure 6 visualizes the gross outcomes of survey answers with relation to my hypotheses.

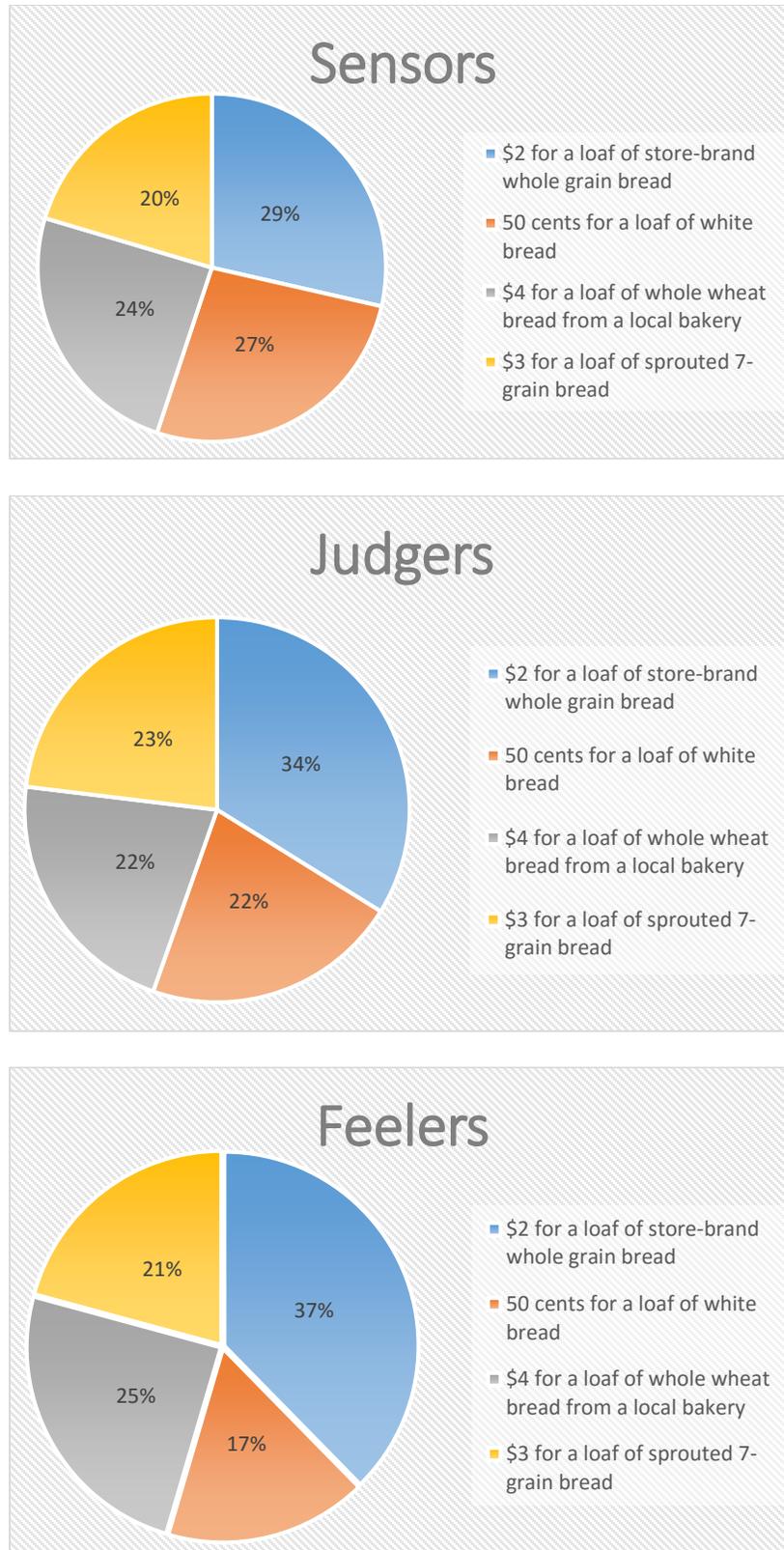


Figure 6. Question 6 – Responses Measured in Percentages of Total xxxJ, xSxx, and xxFx Types

### Of Price and Grain: **Cost**

According to the Cambridge Dictionary Online, cost is the amount of money needed to buy, do, or make something (2016). In the case of this bread, it's purchasing. In 2005, Drewnowski and Darmon claimed that all people are bound by two major constraints when it comes to food consumption: 1. their daily energy need, measured in kilocalories, and 2. their budget. Each individual can capitalize on the "utility" of their dietary intake through manipulation of these two parameters. Drewnowski and Darmon defined utility as "direct benefits associated with food consumption," with the consumer identifying their own "benefits." A thrifty individual may identify maximum savings as the greatest benefit from their frugal dietary selections. However, individuals with low or zero income have no choice but to grocery shop primarily from price tags.

Drewnowski and Darmon point out the inverse relationship between energy density of foods and cost (2005). Unfortunately, this relationship yields an economical diet of energy-dense grains, fats, and sweets. My results show that the majority of ESTJ's would rather purchase a loaf of white bread for only 50 cents. In the studied population, 22.97 is the average BMI for an ESTJ: a population comprised of 3 females, 1 male. This BMI is not only classified as "normal," but close to ideal. An individual weighing 100% of their ideal body weight would have a BMI of 21. It is curious that the majority prefers cheap bread, but averages such a great BMI. Perhaps the general pragmatism, decisiveness, and efficiency of the ESTJ inclines them to hover around a healthy weight. This data directly contradict what Keller and Siegrist suggested in 2015: neurotic individuals tended to adopt counter-regulatory external or emotional eating by consuming high-energy dense foods. The higher sociability of extraverted people seems to negatively affect health. Table 2 compares the nutritional value of each bread option per standard slice, while table 3 compares the nutritional value of each bread option by cost.

| Price | Flour            | Source                         | Kcal | Riboflavin<br>mg | Niacin<br>mg | Thiamin<br>mg | Folate<br>µg | Iron<br>mg | Dietary Fiber<br>g | Total Carb<br>(g) |
|-------|------------------|--------------------------------|------|------------------|--------------|---------------|--------------|------------|--------------------|-------------------|
| \$2   | Whole grain      | Conventional chain grocery     | 69   | .1               | 1            | .1            | 14           | 1          | 2                  | 12                |
| .50   | White            | <i>Implied regular grocery</i> | 69   | .1               | 1            | .1            | 44           | 1          | 1                  | 13                |
| \$4   | Whole wheat      | Local bakery                   | 120  | .1               | 2            | .1            | 15           | 1          | 3                  | 22                |
| \$3   | Sprouted 7 grain | <i>Implied high-end grocer</i> | 69   | .1               | 1            | .1            | 26           | 1          | 1                  | 12                |

Table 2. Question 6 – Nutrient value/standard Bread Slice. Side-by-side comparison of nutritional information for each bread option offered in the survey.

Source: Nutritional information obtained from the USDA SuperTracker (2016).

| Price | Flour            | Source                         | Kcal<br>/\$ | Riboflavin<br>mg/\$ | Niacin<br>mg/\$ | Thiamin<br>mg/\$ | Folate<br>µg/\$ | Iron<br>mg/\$ | Dietary Fiber<br>g/\$ | Total Carb<br>g/\$ |
|-------|------------------|--------------------------------|-------------|---------------------|-----------------|------------------|-----------------|---------------|-----------------------|--------------------|
| \$2   | Whole grain      | Conventional chain grocery     | 34.5        | .05                 | .5              | .05              | 7               | .5            | 1                     | 6                  |
| .50   | White            | <i>Implied regular grocery</i> | 138         | .2                  | 2               | .2               | 88              | 2             | 4                     | 26                 |
| \$4   | Whole wheat      | Local bakery                   | 30          | .025                | .5              | .025             | 3.75            | .25           | .75                   | 5.5                |
| \$3   | Sprouted 7 grain | <i>Implied high-end grocer</i> | 23          | .033                | .3              | .033             | 8.67            | .33           | .33                   | 4                  |

Table 2. Question 6 – Nutrient value of 1 Standard Bread slice/1 U.S. Dollar.

ISFJ’s also opted for a loaf of white bread that only cost 50 cents. The ISFJ’s of my cohort, however, have an average BMI of 24.66: on the brink of the overweight category (BMI of 25 or greater).

I hypothesize that another factor encourages the purchase of cheap, albeit, innutritious foodstuffs: comfort and/or habit. People will continue to purchase foods to which they are accustomed. Perhaps a survey participant’s parents always purchased white bread. Additionally, in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, the ability to feed refined grain products to one’s family indicated wealth and prosperity. The ISFJ personality type is known for responsibility, consideration, and a maternal nature. This may play into the partiality towards conventional white bread.

### Food as Medicine: **Nutrition**

The 2016 Oxford Dictionary Online defines nutrition as “the process of providing or obtaining the food necessary for health and growth.” Some people take Hippocrates’ proverb “let food to be thy medicine” with the utmost gravity. Others, due to a range of humanistic, spiritual, and/or religious motives, truly consider their mortal vessels to be temples. They scrutinize what they put into their bodies; these individuals attempt to glean the most nutrition with every bite. Other factors might include age and gender, with motives ranging from vanity, to pompousness, to prevention of chronic diseases, to damage control after illness or injury. Refer back to table 2 for the nutrition offered by prototypes of each survey response option.

Overall, the bread with the fewest calories, total grams of carbohydrate, that still offered high nutritional value is the \$2 loaf of whole wheat. The bread that provides the most nutrients, including fiber, per standard-sized slice is the \$4 whole wheat local bread. On the other hand, the 50 cent loaf of white bread does offer the most micronutrients (riboflavin, niacin, thiamin, folate, and iron) per 1 U.S. dollar. Of course, contingent on one’s current nutritional status and nutritional goals, the most desirable bread type will vary.

I had anticipated that judges and sensors would opt for the \$2 loaf of whole grain for economical health benefit. Although this estimate proved correct, the \$2 loaf of whole grain bread appealed to every single letter when observed independently of the other three reference pairs (table 1). I had projected that most thinking and judging types would prefer the \$3 loaf of sprouted grain. The results, as exhibited in Figure 6, showed equal fractions of the xxTJ group selected the \$4 local bakery bread or \$3 sprouted bread, 6 individuals, 32% each.

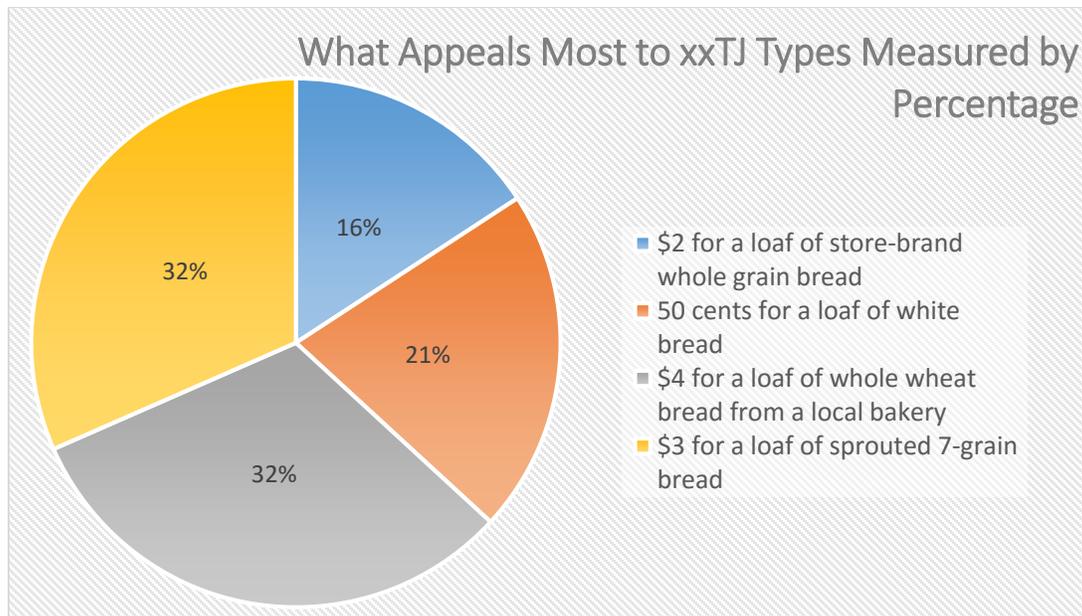


Figure 7. Question 6 – What Appeals Most to xxTJ Types Measured by Percentage.

These outcomes suggest the presence of a casual relationship among the following factors: being an xxTJ type, perception of a healthy or healthier product, and higher income.

A study from 2010 agrees with this multi-faceted hypothesis. In an investigation of 18 – 24-year-old university students conducted by Sharma, Harker, Harker, and Reinhard in 2010, different factors that influence healthy eating, and the strength of their relationships to one another, were explored. 310 Australian students and 305 students in Germany participated. The German students' attitudes towards healthy eating were determined by age, gender and health, while the Australian students' mindsets were shaped by age, health, mood, convenience, familiarity and ethical concerns. It appears that the Australian students had a stronger relationship between these variables than did the Germans. Sharma, Harker, Harker, and Reinhard go on to say that “the gender variable was only a significant predictor of attitude towards healthy eating amongst the German students” (2010). These findings relate to this thesis as students ages 18 – 24 make up the majority of the sample.

Contrarily, in 2012 Beeler and colleagues provide a surprising explanation that correlates with the overarching majority selection of \$2. The results from my study suggest that most people understand that \$2 for whole grain bread provides relatively good nutrition for a relatively decent price. The study conducted by

Beeler and colleagues separates and compares the impact of nutrition and taste on appetitive behavior. Their research suggests that the physiological reward system encodes metabolic value based on the hedonic assessment of taste and then nutrition. However, when detached from taste, nutritional density is highly appetitive. They concluded that taste independently begets preference and increased intake. Yet, over time, in the absence of nutritional value the body releases less dopamine and the reward for consumption of that particular food will not reinforce as strongly as a food that features both taste and nutrition (2012). They go further as to attribute the primacy of nutrition to their results. Millions of years of evolution resulted in ingredients that exhibit genetically increased dopaminergic tone (Beeler, McCutcheon, Cao, Murakami, Alexander, Roitman, & Zhuang, 2012).

Cite Your Sources: **Origin**

On the web, Merriam Webster (2016) says “origin” is the point or place where something begins or is created: the source or cause of something. Although Renner, Sproesser, Strohbach, and Schupp’s aforementioned research claims ethical trepidations to be the least important motives, my survey shows that certain types and letters do, think locally and environmentally. My only prediction was that most of the preferences for the \$4 loaf of bread from the local bakery would come from feelers.

Figure 8 shows the proportion of survey participants that selected the \$4 loaf compared with the total number of survey participants in that feeling Myers-Briggs type.

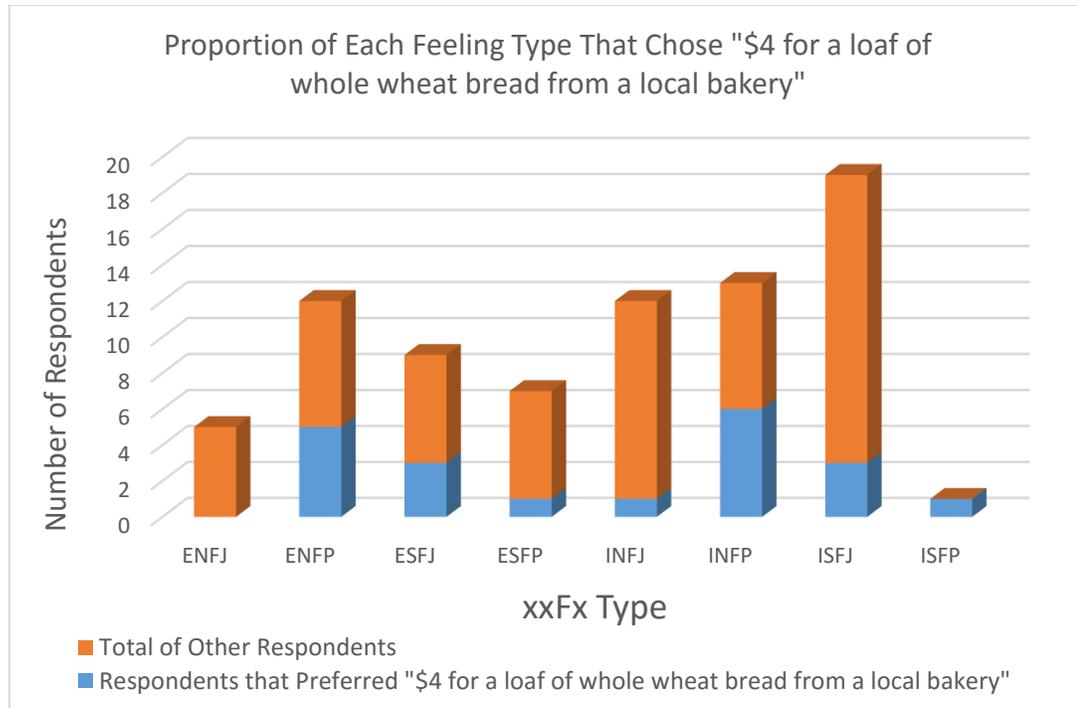


Figure 8. Question 6 – Proportion of Each Feeling Type That Chose "\$4 for a loaf of whole wheat bread from a local bakery."

In light of the majority preference for the \$2 loaf, the next most popular response for the feelers was the \$4 loaf from the local bakery, as I had forecasted (25%, 19 individuals). The ESFJ’s had a tie between the \$2 whole grain bread and \$4 local bakery bread (33%, 3 each). The INFP majority (46%, 6 individuals) claimed they would spend \$4 on the local loaf. The lone ISFP selected the \$4 loaf of bread from a local bakery. Again, this isolated result does not lend itself to statistically significant analysis. Curiously, most INTJ’s, 43% with only three total as a majority, opted for the \$4 bread, too.

For some, the use of their wallet transmits a message as powerful as their choice on a ballot. The local food movement in the U.S. has enjoyed popularity on all fronts. Jesse McEntee (2010) identifies two dichotomies of the localism movement. She says the “contemporary local” desires to support local growers, to promote sustainability, and to weaken large consumeristic bodies through their purchasing behavior. Conversely, the “traditional local” is simply more pragmatic and may or may not have the drive to make a statement with their shopping. The traditional local mainly wants to obtain fresh food at a reasonable price. I have speculated that town pride may also influence the “traditional local’s” buying habits.

Due to such a high concentration of millennials in my cohort, I thought more individuals will opt for the \$4 local loaf. I have also speculated that I prefer to buy local when possible, and those with whom I surround myself think along the same vein, subsequently increasing the population's overall preference towards locally-sourced bread.

General consensus on the Myers-Briggs foundation site, as well as popular public domains such as *16 Personalities* and *Tumblr*, have identified INFP's as idealistic and loyal to their values. As exhibited by Figure 8, the \$4 local loaf of whole wheat appealed to nearly half of the INFP types. Localism involves values- something for which an INFP characteristically will fight.

### ***Leaf an Impression***

*How often do you eat salad? Salad being the conventional salad with a base of leafy greens*

I foresaw that the xxFJ types would consume salad most often because this letter combo features primarily females. Characteristically, females are more disposed to eating salad. Judgers will frequently eat salad, too. In their quest for structure in the outside world, J types might see intake of healthy food as a method of control over what enters their body from the outside world.

Thirty-nine out of the total 45 xxFJ respondents are female. The findings revealed that 13, the majority, selected "more than once a week." Conversely, though, five said "almost never," while only two selected "almost daily" for their salad consumption frequency. Compared with the results of all women in the cohort, "more than once a week" is the most popular response. The results of all female survey participants are depicted in Figure 9. This figure also breaks down the responses from females who have Myers-Briggs types that include feeling, judging, and both feeling/judging.

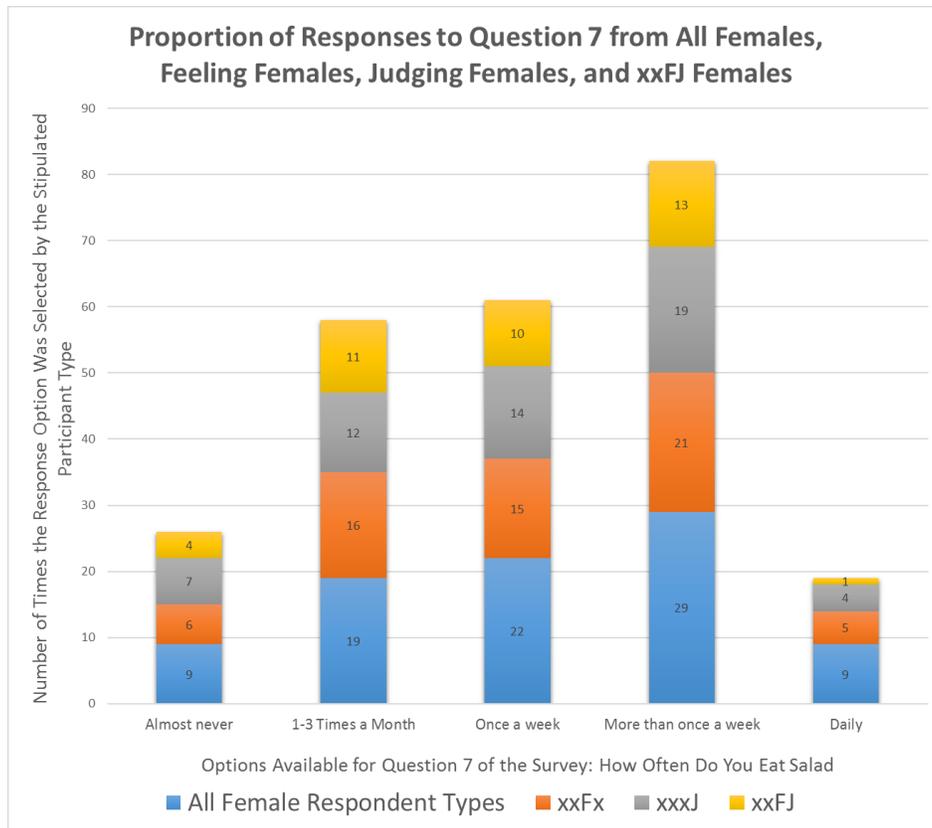


Figure 9. Question 7 of Survey - Proportion of Responses to Question 7 from All Females, Feeling Females, Judging Females, and xxFJ Females.

Although these results coincide with my hypothesis, they demonstrate that the feminine predisposition to salad consumption is not quite so aggressive. Of the total 65 judgers, 22 (34%) claim to eat it “more than once a week.” However, the minority response of the J type dichotomy is “almost daily.”

In retrospect, providing the options of “Almost Never,” “1-3 times a month,” “Once a week,” “Twice a week,” and “3 or more times a week” would have elicited more diverse, accurate answers.

Although I had not made any initial predictions for the S/N reference pair for this question, research conducted by Keller and Siegrist reveals that high openness to experience is associated with higher fruit, vegetable, and salad consumption. “Openness” does, in fact, tie into Myers-Briggs type theory. In 1989, McCrae and Costa overlapped the MBTI with the Big Five personality traits, also known as the five factor model (FFM). Some psychologists use these five dimensions as a means to interpret human personality and

psyche, similarly to the MBTI. The table of their results demonstrates a robust positive correlation between iNtuition, of Myers-Briggs, and openness to experience, of the Big 5 (table 4).

|     | Extraversion | Openness    | Agreeableness | Conscientiousness | Neuroticism |
|-----|--------------|-------------|---------------|-------------------|-------------|
| E-I | -0.74        | 0.03        | -0.03         | 0.08              | 0.16        |
| S-N | 0.10         | <b>0.72</b> | 0.04          | -0.15             | -0.06       |
| T-F | 0.19         | 0.02        | <b>0.44</b>   | -0.15             | 0.06        |
| J-P | 0.15         | 0.30        | -0.06         | <b>-0.49</b>      | 0.11        |

*The closer the number is to 1.0 or -1.0, the higher the degree of correlation.*

Table 4. Correlation of the Myers-Briggs Type Dichotomies to the Big Five Personality Traits. Source: McCrae and Costa via Wikipedia.org (2016).

In fact, this particular relationship, with a correlation of .72, is one of the strongest correlations calculated from the study. With this information, I returned to my cohort’s responses with a new crucible. Figure 10 shows the proportion of responses provided by all the N type, and likely more “open” individuals.

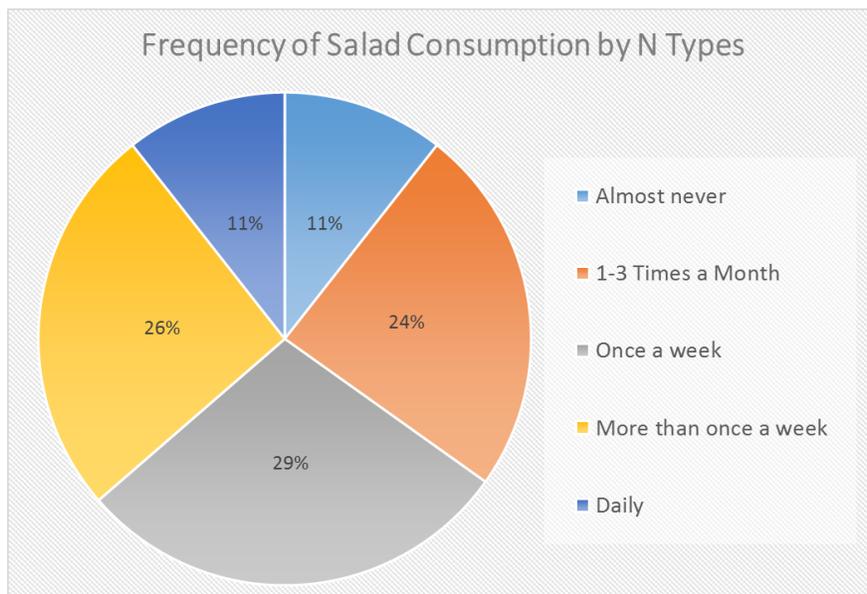


Figure 10. Question 7 – Frequency of Salad Consumption by N Types. Each iNtuitive participant was compared as part of the entire iNtuitive subgroup.

Nineteen of the N (iNtuition) indicated “once a week,” 17, or 26%, selected “more than once a week,” and 11%, or seven individuals claim to consume salad “almost daily.” My results do not directly match the professional research, but they do not conflict either.

### **Eating Out or Dining In**

*Which statement best describes your opinion regarding going out to eat?*

I predicted that extraverts would enjoy eating out “about once a week” or “with friends.” I also would understand a high response rate for “prefer to cook my own meals.” The culinary arts can serve as a social skill as much as a utilitarian skill; cooking plays a huge role in entertaining company. Many introverts may also cook their own meals frequently, as cooking may function as a peaceful escape. I also predict that introverts will “rarely go out to eat.” Because “going out with friends” or eating out for special occasions involves empathy, celebration, and connection with others, I predict that many F types will select one of “with friends” or “special occasions.” J types will favor “cooking my own meals,” for control over the environment. Furthermore, many judgers may indicate that they eat out, “but only on special occasions.” Going out to eat for a J type would involve scheduling and planning ahead, therefore they may be more apt to eat out if it is a special event. Restauranting could be viewed as a semi-spontaneous event. I expected that the P types will select “love to go out to eat with friends.” As far as four-letter types, the ESFP is famously known as the entertainer personality, and “the protagonist” is the ENFJ. I estimated both types to “love going out to eat with friends”.

The most popular response across the board, as well as with almost every reference pair dichotomy, is “about once a week I will eat out.” The extraverted participants were no exception: of the 49 extraverts, 15 claim to eat out about once a week (31%), with 13 selections (27%) of “with friends,” followed by 20%, or 10 people, who prefer to “cook my own meals.” The introverts yielded an equally varied panel of results. “About once a week I will eat out” received 33%, or 21 individuals, followed by “friends” (31%, 20 individuals), with “cook my own meals” and “restaurant food is always better than what I make” tying at

11%, or 7 individuals. The least popular response was “rarely going out to eat.” The number of responses for each option are compared in Figure 11 with total number of respondents for each letter for reference.

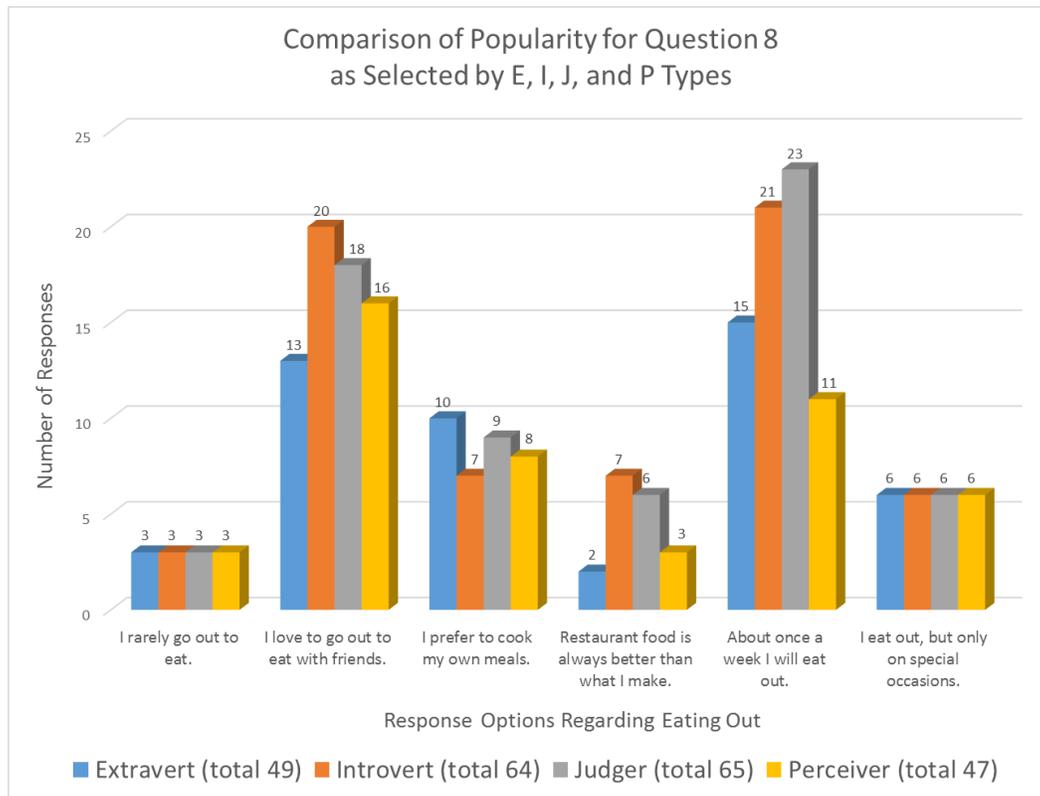


Figure 11. Question 8– Comparison of Popularity for Question 8 as Selected by E, I, J, and P Types.

Contrary to what I had presumed, a mere 5% of the cohort’s introverts (3 persons) claimed to “rarely” eat out. The majority of feelers, of course, selected “once a week,” but this response tied with “eat with friends.” Both achieved 34%, or 26 individuals.

I hit the nail on the head with those with a preference for perception. The P types mostly responded “going out to eat with friends” (34%, 16 persons). Perceivers are the only type with a majority inclined towards an option other than “once a week.” The minority response of 3 individuals, 6%, “is rarely eating out.” My predictions were not as perfect for the J’s. Nine judgers (14%) preferred to “cook my own meal,” but as with the rest of the letters, the majority favored “once a week.” Only six of the J types, or 9%, eat out only on “special occasions.” These findings repudiate my hypothesis.

The cohort included seven total ESFP’s. Upon isolation of the full type, 57% of ESFP’s “love to eat out with friends,” with the other 3, or 43% choosing “about once a week.” Since only five ENFJ’s took the survey, it is difficult to make a statistically significant statement, but from what was gathered, 40%, or two ENFJ’s “love to eat out with friends,” while the remaining 60% is equally divided among “rarely,” “once a week,” and “special occasions.”

Van den Bree, Przybeck, and Cloninger researched related data. They indicated that males gain a feeling of personal reward when they felt “most in charge” of intake (2006). Intrinsically, I would agree, however, the survey outcomes would beg to differ. Of the 30 male respondents, only 10%, three men total, prefer to cook. Figure 12 demonstrates the percentages of each response from all males for the final question.

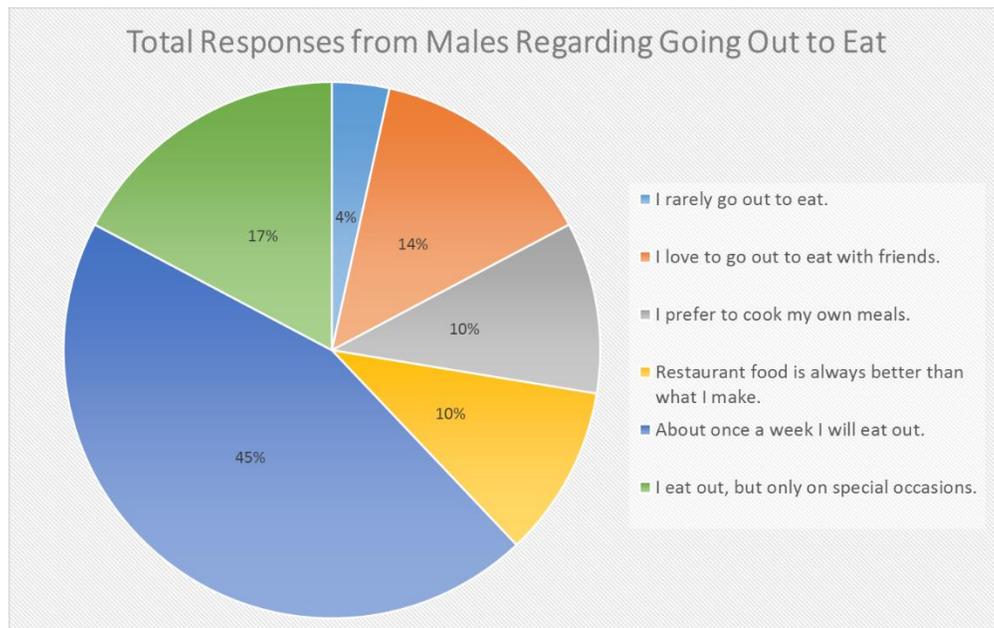


Figure 12. Question 8 – Total responses from males regarding going out to eat.

***Overarching Letter Pattern: Judgers vs. Perceivers***

While analyzing the BMI, Body Mass Index, of the different dichotomies of the reference pairs, I made a discovery concerning those who judge compared with those who perceive. As evidenced by Tables 5 and 6 (please see appendices C and D) the average BMI of a J type is markedly less than the average BMI of a P. Judgers averaged a 25.17 BMI, while perceivers averaged 27.81. I believe that the underlying qualities of each letter in the reference pair are responsible for this difference. The spontaneity with which a P type tends to live would predispose them to eating out, eating fast food, frequent snacking, making impulsive food choices, or, generally, overindulging. Inversely, judgers desire so much control over their environment, their eating habits may likely reflect this control. A J type is more apt to diet regularly and follow a fixed schedule for eating meals.

### Conclusions

With great interest in Myer-Briggs type theory, the prospect of paving a small path through a virgin area of research, and an impending career as a registered dietitian, this honors project materialized. I sought to determine any correlations that exist between results of the Myers-Briggs Type Indicator and dietary habits. If they exist, to what extent do they correlate?

### *Review of the Research*

In order to achieve my findings, I posed six primary survey questions to participants. These overarching research questions guided the survey's composition: Do certain letters and/or types have inclinations towards any dietary lifestyle? What does a person take into account when making food and intake choices as related to Myers-Briggs typology? Do certain types charge themselves with following healthy diets, whether real or perceived? Does one's Myers-Briggs type predispose them to having particular dietary habits? The first two questions in the survey involve the accrument of preliminary demographic data and, of course, each individual's Myers-Briggs type.

According to my results, the P (perceiving) types are not as heavily saturated with vegetarians as I had presumed. Only one perceiving participant identified as lacto-ovo vegetarian and one other as pescatarian. Feelers, however, dominated the vegetarian spectrum, in agreement with my hypothesis.

As evidenced by my cohort, consumption of fast food "1-3 times a month" is consistent across Myers-Briggs types, as well as demographics.

The majority, 11 individuals, or 39% of xNxJ types "seldom" forget to eat, whereas 15, the majority, of xNxP types, 41%, "occasionally" forget to eat. This increase in forgetfulness that follows the specification of P over J may occur because highly conscientious people, such as J individuals, practice regulatory dietary restraint and emotional self-control with eating (Keller & Siegrist, 2015). In the cohort, 36% of IxNx types, or 14 individuals, "occasionally" forget to eat. More of these types claim to "regularly" forget (18%, 7) than "almost never" (13%, 5). Not as many iNtuitive introverts forget to eat as often as I had assumed. By

stipulating the second reference pair (S/N) as iNtuitive, the regularity of forgetting to eat increases. I accurately predicted the inverse relationship of the iNtuitior's deep thinking to remembering to eat.

Of all the bread options offered, the majority of ESTJ's in my population would prefer purchasing a loaf of white bread for only 50 cents. In the studied population, 22.97 is the average BMI for an ESTJ. This BMI falls under the "normal weight" classification: diverging from all professional research, as the relationship of calories and nutrition to money is an inverse one. I conjectured that the practicality, decisiveness, and sensibleness of the typical ESTJ predisposes them to maintain a near-optimal weight.

Because it was a locally-minded millennial who distributed the survey to predominantly millennials with similar inclinations, the results were skewed to show more individuals opting for the \$4 local loaf. Additionally, the majority of INFP's and ESFJ's, types known for their warmth, idealism, and ethics, selected the local bread.

McCrae and Costa discovered that openness of the "Big Five" correlates with iNtuition of Myers-Briggs. In a similar study, Keller and Siegrist found that openness correlates to "trying new foods," most notably fruits and vegetables. In revisiting the results of question seven with the interpretations of Keller and Siegrist and McCrae and Costa, I learned new information. Nineteen of the iNtuitors indicated "once a week," 17 of them, or 26%, selected "more than once a week," and 11%, or seven individuals claim to consume salad "almost daily."

In analysis and comparison of the Body Mass Indexes of reference pair dichotomies, I discovered that the average BMI of a J type, 25.17, is less than the average BMI of a P, 27.81. I believe that each letter's defining characteristics are responsible for this difference. A P type may tend to eat out, eat fast food, snack frequently, choose foods impulsively, or partake in brazen overindulgence. Inversely, a judger's control may also extend through their eating habits, manifesting in regular dieting, food budgets, and maybe even an eating schedule regimen.

### *Closing*

Aside from a handful of correlations and unexpected findings, the results from this year-long study were extremely inconclusive, albeit interesting. My research was limited. I fell victim to the learning curve associated with making an electronic survey and stumbled through the technical issues in the Qualtrics programming. The results were inherently skewed due to the method of distribution and by the familiarity the population had with the researcher.

On a personal note- every speedbump served as a learning opportunity. The experience taught me the greater nuances of conducting valid research. I became more knowledgeable of Myers-Briggs typology as it is meant to be used, rather than the popular culture usage and stereotyping.

Many critics argue that Myers-Briggs, and even personality psychology as a philosophy, lacks relevance and validity. However, with a healthy appreciation and understanding of personality typology, one has the tools to think, decide, and act in everyday interactions with greater empathy and efficiency. It is in this way that personality psychology and MBTI can interface with dietetics. Dietetics is heavily psychological, yet Baldwin, Weekes, and Campbell (2008) identified psychology as a weak point among dietetics practitioners. Appendix E is an algorithm for application of Myers-Briggs typology to the Nutrition Care Process. The guide could really benefit dietitians by providing an alternative or supplemental tool for practice. Personality types, as defined by Jung, Briggs, and Briggs Myers, may significantly influence diet, as demonstrated by the survey outcomes. The study of dietetics coupled with MBTI could help address the possible predisposition of perceivers to a higher BMI.

Despite the shortcomings and inconclusive results, I believe that this research unlocked the door to future, more in-depth examination of MBTI and nutrition. Future investigators can study larger cohorts, concentrate on single diets, i.e. lacto-vegetarians only, or single personality types. That door may have been opened, but it is what lies behind the door that has the potential to reshape personality psychology, nutrition and dietetics, or both.

## References

- Ashton, M. C., Pilkington, A. C., & Lee, K. (2014). Do prosocial people prefer sweet-tasting foods? An attempted replication of Meier, Moeller, Riemer-Peltz, and Robinson (2012). *Journal Of Research In Personality, 52*, 42-46. doi:10.1016/j.jrp.2014.06.006.
- Baldwin, C., Weekes, C. E., & Campbell, K. L. (2008, August). Measuring the effectiveness of dietetic interventions in nutritional support. *Journal of Human Nutrition & Dietetics*. pp. 303-305. doi:10.1111/j.1365-277X.2008.00893.x.
- Beeler, J. A., McCutcheon, J. E., Cao, Z. H., Murakami, M., Alexander, E., Roitman, M. F., & Zhuang, X. (2012). Taste uncoupled from nutrition fails to sustain the reinforcing properties of food. *European Journal Of Neuroscience, 36*(4), 2533-2546. doi:10.1111/j.1460-9568.2012.08167.x
- Boyle, G. J. (1995). *Myers-Briggs Type Indicator (MBTI): Some psychometric limitations. Australian Psychologist (30)71–74*. doi:10.1111/j.1742-9544.1995.tb01750.x.
- Byrnes, N. K., & Hayes, J. E. (2013). Personality factors predict spicy food liking and intake [Abstract]. *Food Quality & Preference, 28*(1), 213-221. doi:10.1016/j.foodqual.2012.09.008
- Cost. (n.d.) In *Cambridge Dictionary online*. Retrieved from <http://dictionary.cambridge.org/us/dictionary/english/cost>
- Capraro, R., Capraro, M. (2002). Myers-Briggs type indicator score reliability across studies: A meta-analytic reliability generalization study. *Educational and Psychological Measurement, 62*, 590–602.
- Dawes, R. (2004). Time for a critical empirical investigation of the MBTI: Case and Phillipson

are right to highlight the pre-scientific roots of the MBTI, but they fail to separate the issue of the validity or usefulness of the MBTI from the issue of the validity of its origins. *European Business Forum* (18)

Drewnowski, A., Darmon, N. (2005). The economics of obesity: Dietary energy density and energy cost. *The American Journal of Clinical Nutrition*, 82, 2655-2735.

Drewnowski, A., Darmon, N. (2005). Food choices and diet cost: An economic analysis. *The Journal of Nutrition*, 135(4) 900-904.

Hayley, A., Zinkiewicz, L., & Hardiman, K. (2015). Values, attitudes, and frequency of meat consumption. Predicting meat-reduced diet in Australians. *Appetite*, (84)98-106.  
doi:10.1016/j.appet.2014.10.002

Keller, C., & Siegrist, M. (2015). Does personality influence eating styles and food choices? Direct and indirect effects. *Appetite*, (84)128-138. doi:10.1016/j.appet.2014.10.00.

McCrae, R., Costa, P. (1989). Reinterpreting the Myers-Briggs Type Indicator from the perspective of the five-factor model of personality. *Journal of Personality* 57(1) 17–40.  
doi:10.1111/j.1467-6494.1989.tb00759.x. PMID 2709300.

McEntee, J. (2010). Contemporary and traditional localism: a conceptualisation of rural local food. *The International Journal of Justice and Sustainability*, 15(9-10) 785-803).  
doi:10.1080/13549839.2010.509390

Myers, I. McCaulley M.H., Quenk, N.L., & Allen, H.L. (1998). *MBTI® Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator.® (3<sup>rd</sup> Ed.)*. Mountain View, CA: Consulting Psychologists Press

The Myers & Briggs Foundation (2015). *MBTI® Basics*. Retrieved from

<http://www.myersbriggs.org/my-mbti-personality-type/mbti-basics/>

National Heart, Lung, and Blood Institute. (1998). *Body mass index table* [Data file]. Retrieved

from [https://www.nhlbi.nih.gov/health/educational/lose\\_wt/BMI/bmi\\_tbl.pdf](https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_tbl.pdf)

Nutrition. (n.d.) In *Oxford Dictionary online*. Retrieved from

[http://www.oxforddictionaries.com/us/definition/american\\_english/nutrition](http://www.oxforddictionaries.com/us/definition/american_english/nutrition)

Origin. (n.d.) In *Merriam-Webster dictionary online*. Retrieved from

<http://www.merriam-webster.com/dictionary/origin>

Pittenger, D. J. (1993). Measuring the MBTI... and coming up short. *Journal of Career Planning and Employment*, 54(1), 48-52.

Rapoport, L. (1998). Integrating cognitive behavioural therapy into dietetic practice: a challenge for dietitians. *Journal of Human Nutrition and Dietetics*, 11(3) 227–237. doi: 10.1046/j.1365-277X.1998.00102.x

Renner, B., Sproesser, G., Strohbach, S., & Schupp, H. T. (2012). Why we eat what we eat. The Eating Motivation Survey (TEMS). *Appetite*, 59(1), 117-128. doi:10.1016/j.appet.2012.04.004

Sharma, B., Harker, M., Harker, D., & Reinhard, K. (2010). Youth transition to university in germany and australia: An empirical investigation of healthy eating behaviour. *Journal Of Youth Studies*, 13(3), 353-367.

United States Department of Agriculture. (2016). *SuperTracker Food Tracker* [Online Program].

Retrieved from <https://supertracker.usda.gov/foodtracker.aspx>

van den Bree, M. M., Przybeck, T. R., & Cloninger, C. R. (2006). Diet and personality:

Associations in a population-based sample. *Appetite*, 46(2), 177-188.

doi:10.1016/j.appet.2005.12.004

Wansink, B., Sobal, J. (2007). Mindless eating: The 200 daily food decisions we overlook.

*Environment and Behavior*, 39(1), 106-123.

## Appendix A

## Copy of the Survey Questions

**1. Please input the following data:**

- Age
- Gender
- Height (in.)
- Weight (lbs.)
- Myers-Briggs Personality Type (first four letters)

**2. Please indicate your highest level of education sought or achieved:**

- Elementary school
- Middle school
- High school or GED
- Associate's degree
- Bachelor's degree
- Master's degree
- Doctorate
- Currently seeking associate's
- Currently seeking Bachelor's
- Currently seeking Master's
- Current seeking doctorate

**3. With which diet would you identify best?**

*You do not have to have declared that you adhere to that diet pattern, just select the one that most accurately aligns with your usual eating habits.*

- **Vegan** – vegans do not intake anything made of or from animals, including honey. True vegans do not wear leather or use any products tested on animals.
- **Lacto-vegetarian** – lacto-vegetarians do not eat animal flesh or eggs, but they consume dairy.
- **Ovo-vegetarian** – ovo-vegetarians do not consume animal flesh or dairy, but they can eat eggs.
- **Lacto-ovo-vegetarian** – lacto-ovo-vegetarians do not eat the flesh of animals, but do consume dairy and egg products. They are the most common type of vegetarian.
- **Pescatarian** – pescatarians refrain from eating any creatures that walk the earth. They can eat fish, seafood, dairy, and eggs.
- **Flexitarian** – a flexitarian, sometimes called a semi-vegetarian, is someone who occasionally abstains from eating animal flesh.
- **Omnivore** – omnivores eat a mixed diet derived equally from plants, animals, fish, eggs, and dairy.
- **Carnivore** – (in this context) a carnivore is someone who consumes meat at every meal or does not perceive a dish as a complete meal unless it contains meat.

**4. Do you eat fast food?**

- Almost Never
- 1-3 times a month
- Once or more a week
- Almost every day

**5. For whatever reason, do you ever forget to eat?**

- Almost Never
- Seldom
- Occasionally
- Regularly

**6. Which of these options appeals the most to you?**

- \$2 for a loaf of store-brand whole grain bread
- 50 cents for a loaf of white bread
- \$4 for a loaf of whole wheat bread from a local bakery
- \$3 for a loaf of sprouted 7-grain bread

**7. How often do you eat salad?**

*Salad being the conventional salad with a base of leafy greens.*

- Almost Never
- 1-3 times a month
- Once a week
- More than once a week

**8. Which of these statements best describes your opinion regarding eating out?**

- I rarely go out to eat.
- I love to go out to eat with friends.
- I prefer to cook my own meals.
- Restaurant food is just more delicious.
- About once a week I will eat out.
- I eat out, but only on special occasions.

## Appendix B

Table 1. Precursory Data Gathered from Question 1 with Metric Conversions, BMI, and Averages.

| Age | Gender | Height (in.) | Weight (lbs.) | Myers-Briggs Personality Type | Ht (cm) | Wt (kg) | BMI   |
|-----|--------|--------------|---------------|-------------------------------|---------|---------|-------|
| 45  | F      | 64           | 145           | ISTJ                          | 162.56  | 65.91   | 24.94 |
| 47  | Male   | 71           | 160           | ISFJ                          | 180.34  | 72.73   | 22.36 |
| 60  | Male   | 72           | 180           | INFP                          | 182.88  | 81.82   | 24.46 |
| 63  | female | 63           | 170           | ESFJ                          | 160.02  | 77.27   | 30.18 |
| 59  | female | 64           | 141           | ENFP                          | 162.56  | 64.09   | 24.25 |
| 19  | Female | 67.5         | 161           | ESFJ                          | 171.45  | 73.18   | 24.90 |
| 23  | F      | 63           | 118           | ISTJ                          | 160.02  | 53.64   | 20.95 |
| 32  | Female | 65           | 202           | ISFJ                          | 165.10  | 91.82   | 33.68 |
| 22  | Male   | 68           | 185           | ENFP                          | 172.72  | 84.09   | 28.19 |
| 20  | Male   | 70           | 140           | INTJ                          | 177.80  | 63.64   | 20.13 |
| 45  | Female | 69           | 235           | INTJ                          | 175.26  | 106.82  | 34.78 |
| 22  | Male   | 71           | 190           | ISFJ                          | 180.34  | 86.36   | 26.56 |
| 49  | Male   | 69.5         | 222           | ESFJ                          | 176.53  | 100.91  | 32.38 |
| 22  | male   | 65           | 142           | ESFP                          | 165.10  | 64.55   | 23.68 |
| 22  | Female | 61           | 108           | INFP                          | 154.94  | 49.09   | 20.45 |
| 21  | Female | 69           | 185           | ISFJ                          | 175.26  | 84.09   | 27.38 |
| 66  | Female | 64           | 120           | ESTJ                          | 162.56  | 54.55   | 20.64 |
| 49  | Female | 66           | 250           | INFP                          | 167.64  | 113.64  | 40.44 |
| 23  | M      | 73           | 240           | INTP                          | 185.42  | 109.09  | 31.73 |
| 20  | Female | 69           | 110           | ENFJ                          | 175.26  | 50.00   | 16.28 |
| 59  | Female | 64           | 185           | INFJ                          | 162.56  | 84.09   | 31.82 |
| 20  | female | 65           | 160           | ENTJ                          | 165.10  | 72.73   | 26.68 |
| 21  | Male   | 70           | 175           | INFP                          | 177.80  | 79.55   | 25.16 |
| 20  | F      | 69           | 133           | INTJ                          | 175.26  | 60.45   | 19.68 |
| 62  | F      | 66           | 150           | ENTP                          | 167.64  | 68.18   | 24.26 |
| 62  | Male   | 70           | 182           | INTP                          | 177.80  | 82.73   | 26.17 |
| 21  | Female | 69           | 125           | ISFJ                          | 175.26  | 56.82   | 18.50 |
| 23  | female | 63           | 120           | ENTJ                          | 160.02  | 54.55   | 21.30 |
| 23  | Male   | 73           | 230           | ESTP                          | 185.42  | 104.55  | 30.41 |

|    |        |    |     |      |        |        |       |
|----|--------|----|-----|------|--------|--------|-------|
| 21 | Male   | 76 | 170 | INTP | 193.04 | 77.27  | 20.74 |
| 22 | Female | 65 | 150 | ESFJ | 165.10 | 68.18  | 25.01 |
| 30 | Female | 64 | 180 | ESFJ | 162.56 | 81.82  | 30.96 |
| 37 | female | 63 | 112 | ESTJ | 160.02 | 50.91  | 19.88 |
| 22 | Female | 64 | 115 | INFJ | 162.56 | 52.27  | 19.78 |
| 24 | Female | 66 | 123 | ENFP | 167.64 | 55.91  | 19.89 |
| 21 | female | 64 | 267 | INFP | 162.56 | 121.36 | 45.93 |
| 27 | female | 69 | 180 | ENTP | 175.26 | 81.82  | 26.64 |
| 21 | Female | 59 | 110 | INFJ | 149.86 | 50.00  | 22.26 |
| 29 | Male   | 69 | 190 | ESFP | 175.26 | 86.36  | 28.12 |
| 21 | Female | 63 | 110 | ENFJ | 160.02 | 50.00  | 19.53 |
| 46 | female | 64 | 185 | ENFP | 162.56 | 84.09  | 31.82 |
| 20 | female | 65 | 123 | ENFP | 165.10 | 55.91  | 20.51 |
| 21 | Female | 68 | 158 | INFP | 172.72 | 71.82  | 24.07 |
| 21 | m      | 69 | 135 | ESTP | 175.26 | 61.36  | 19.98 |
| 20 | Female | 65 | 120 | ENFP | 165.10 | 54.55  | 20.01 |
| 24 | Female | 66 | 130 | ISFJ | 167.64 | 59.09  | 21.03 |
| 21 | female | 66 | 110 | INFJ | 167.64 | 50.00  | 17.79 |
| 22 | Female | 64 | 190 | ISFJ | 162.56 | 86.36  | 32.68 |
| 16 | female | 66 | 320 | INTP | 167.64 | 145.45 | 51.76 |
| 25 | Female | 64 | 110 | INFP | 162.56 | 50.00  | 18.92 |
| 20 | female | 66 | 125 | ISFJ | 167.64 | 56.82  | 20.22 |
| 16 | Female | 66 | 140 | ESFP | 167.64 | 63.64  | 22.64 |
| 16 | female | 78 | 140 | INTJ | 198.12 | 63.64  | 16.21 |
| 18 | Female | 66 | 170 | ENTP | 167.64 | 77.27  | 27.50 |
| 17 | Male   | 71 | 134 | INTP | 180.34 | 60.91  | 18.73 |
| 23 | female | 67 | 125 | ESFJ | 170.18 | 56.82  | 19.62 |
| 17 | Female | 68 | 236 | INTJ | 172.72 | 107.27 | 35.96 |
| 22 | Female | 65 | 210 | INFP | 165.10 | 95.45  | 35.02 |
| 38 | female | 66 | 200 | ISFJ | 167.64 | 90.91  | 32.35 |
| 39 | Female | 60 | 90  | INFJ | 152.40 | 40.91  | 17.61 |
| 41 | f      | 66 | 140 | ESFJ | 167.64 | 63.64  | 22.64 |
| 43 | Female | 63 | 226 | ENFP | 160.02 | 102.73 | 40.12 |
| 20 | f      | 67 | 170 | INFJ | 170.18 | 77.27  | 26.68 |

|    |        |    |     |      |        |        |       |
|----|--------|----|-----|------|--------|--------|-------|
| 33 | F      | 67 | 205 | INFJ | 170.18 | 93.18  | 32.17 |
| 22 | Female | 64 | 130 | ESFJ | 162.56 | 59.09  | 22.36 |
| 32 | f      | 65 | 227 | ENFP | 165.10 | 103.18 | 37.85 |
| 21 | F      | 66 | 118 | ESFP | 167.64 | 53.64  | 19.09 |
| 34 | Male   | 69 | 160 | ISTP | 175.26 | 72.73  | 23.68 |
| 19 | Male   | 66 | 155 | ENTP | 167.64 | 70.45  | 25.07 |
| 19 | M      | 68 | 190 | ISTP | 172.72 | 86.36  | 28.95 |
| 39 | Female | 62 | 125 | ISFJ | 157.48 | 56.82  | 22.91 |
| 63 | f      | 65 | 154 | ESFJ | 165.10 | 70.00  | 25.68 |
| 29 | Male   | 74 | 225 | ESTJ | 187.96 | 102.27 | 28.95 |
| 30 | f      | 72 | 220 | INFP | 182.88 | 100.00 | 29.90 |
| 30 | F      | 72 | 220 | INFP | 182.88 | 100.00 | 29.90 |
| 21 | female | 66 | 135 | ENFJ | 167.64 | 61.36  | 21.84 |
| 23 | Male   | 71 | 223 | INTP | 180.34 | 101.36 | 31.17 |
| 51 | m      | 73 | 275 | INFJ | 185.42 | 125.00 | 36.36 |
| 23 | Female | 67 | 190 | ISFJ | 170.18 | 86.36  | 29.82 |
| 21 | Female | 65 | 170 | INFP | 165.10 | 77.27  | 28.35 |
| 47 | F      | 67 | 180 | ENFJ | 170.18 | 81.82  | 28.25 |
| 58 | F      | 63 | 140 | ISFJ | 160.02 | 63.64  | 24.85 |
| 46 | female | 67 | 155 | INTJ | 170.18 | 70.45  | 24.33 |
| 56 | female | 63 | 136 | ENTP | 160.02 | 61.82  | 24.14 |
| 57 | Female | 73 | 165 | ISTJ | 185.42 | 75.00  | 21.81 |
| 36 | Female | 65 | 107 | ENFJ | 165.10 | 48.64  | 17.84 |
| 22 | Female | 63 | 120 | ISFJ | 160.02 | 54.55  | 21.30 |
| 60 | female | 65 | 138 | INTJ | 165.10 | 62.73  | 23.01 |
| 43 | Female | 66 | 128 | ISFJ | 167.64 | 58.18  | 20.70 |
| 53 | m      | 72 | 191 | ENFP | 182.88 | 86.82  | 25.96 |
| 50 | male   | 69 | 178 | ESFP | 175.26 | 80.91  | 26.34 |
| 51 | Female | 63 | 135 | ISFJ | 160.02 | 61.36  | 23.96 |
| 25 | Female | 63 | 120 | INFJ | 160.02 | 54.55  | 21.30 |
| 28 | Female | 60 | 215 | ISFJ | 152.40 | 97.73  | 42.08 |
| 63 | Male   | 70 | 192 | ISTJ | 177.80 | 87.27  | 27.61 |
| 56 | FEMALE | 69 | 250 | ENFP | 175.26 | 113.64 | 37.00 |
| 59 | m      | 60 | 200 | ESTJ | 152.40 | 90.91  | 39.14 |

|              |        |              |               |      |               |              |              |
|--------------|--------|--------------|---------------|------|---------------|--------------|--------------|
| 30           | female | 64           | 128           | ENTJ | 162.56        | 58.18        | 22.02        |
| 23           | woman  | 66           | 250           | INFJ | 167.64        | 113.64       | 40.44        |
| 18           | Female | 68.5         | 130           | ISFJ | 173.99        | 59.09        | 19.52        |
| 65           | m      | 70           | 180           | ESFJ | 177.80        | 81.82        | 25.88        |
| 50           | F      | 65           | 135           | ESTJ | 165.10        | 61.36        | 22.51        |
| 21           | Female | 64           | 128           | INTJ | 162.56        | 58.18        | 22.02        |
| 18           | F      | 66           | 180           | ISTJ | 167.64        | 81.82        | 29.11        |
| 28           | Female | 51           | 90            | INTP | 129.54        | 40.91        | 24.38        |
| 23           | female | 62           | 119           | INFP | 157.48        | 54.09        | 21.81        |
| 45           | female | 54           | 160           | ESFJ | 137.16        | 72.73        | 38.66        |
| 47           | Female | 65           | 180           | ENFP | 165.10        | 81.82        | 30.02        |
| 57           | Male   | 67           | 190           | ISFP | 170.18        | 86.36        | 29.82        |
| 94           | F      | 65           | 165           | INFP | 165.10        | 75.00        | 27.51        |
| 52           | Male   | 66           | 110           | ISFJ | 167.64        | 50.00        | 17.79        |
| 46           | Female | 64           | 129           | INFJ | 162.56        | 58.64        | 22.19        |
| 58           | female | 66           | 135           | ESFP | 167.64        | 61.36        | 21.84        |
| 59           | female | 65           | 163           | INFP | 165.10        | 74.09        | 27.18        |
| 71           | F      | 63           | 199           | ESFP | 160.02        | 90.45        | 35.32        |
| 18           | Female | 67           | 140           | INFJ | 170.18        | 63.64        | 21.97        |
| 63           | female | 63           | 170           | ISFJ | 160.02        | 77.27        | 30.18        |
| 51           | male   | 71           | 225           | ENFP | 180.34        | 102.27       | 31.45        |
| <b>35.07</b> |        | <b>66.30</b> | <b>164.71</b> |      | <b>168.40</b> | <b>74.87</b> | <b>26.36</b> |

## Appendix C

Table 5. Height, Weight, BMI, and Average BMI of all xxxJ Participants

| Judging Type | Ht Metric | Wt Metric   | BMI         |
|--------------|-----------|-------------|-------------|
| ISTJ         | 162.56    | 65.90909091 | 24.94123419 |
| ISFJ         | 180.34    | 72.72727273 | 22.36213017 |
| ESFJ         | 160.02    | 77.27272727 | 30.17711434 |
| ESFJ         | 171.45    | 73.18181818 | 24.8959221  |
| ISTJ         | 160.02    | 53.63636364 | 20.9464676  |
| ISFJ         | 165.1     | 91.81818182 | 33.68484413 |
| INTJ         | 177.8     | 63.63636364 | 20.12991039 |
| INTJ         | 175.26    | 106.8181818 | 34.77599516 |
| isfj         | 180.34    | 86.36363636 | 26.55502958 |
| ESFJ         | 176.53    | 100.9090909 | 32.38122328 |
| ISFJ         | 175.26    | 84.09090909 | 27.37684725 |
| Estj         | 162.56    | 54.54545455 | 20.6410214  |
| ENFJ         | 175.26    | 50          | 16.27812539 |
| Infj         | 162.56    | 84.09090909 | 31.82157465 |
| ENTJ         | 165.1     | 72.72727273 | 26.68106466 |
| INTJ         | 175.26    | 60.45454545 | 19.68173343 |
| ENJP         | 167.64    | 68.18181818 | 24.26125563 |
| ISFJ         | 175.26    | 56.81818182 | 18.49786977 |
| entj         | 160.02    | 54.54545455 | 21.30149248 |
| ESFJ         | 162.56    | 81.81818182 | 30.96153209 |
| estj         | 160.02    | 50.90909091 | 19.88139298 |
| INFJ         | 162.56    | 52.27272727 | 19.78097884 |
| Infj         | 149.86    | 50          | 22.26376185 |
| ENFJ         | 160.02    | 50          | 19.5263681  |
| ISFJ         | 167.64    | 59.09090909 | 21.02642155 |
| infj         | 167.64    | 50          | 17.79158747 |
| ISFJ         | 162.56    | 86.36363636 | 32.68161721 |
| ISFJ         | 167.64    | 56.81818182 | 20.21771303 |
| intj         | 198.12    | 63.63636364 | 16.21245248 |
| esfj         | 170.18    | 56.81818182 | 19.61870304 |
| INTJ         | 172.72    | 107.2727273 | 35.95870671 |
| ISFJ         | 167.64    | 90.90909091 | 32.34834085 |

|      |        |             |                    |
|------|--------|-------------|--------------------|
| INFJ | 152.4  | 40.90909091 | 17.61367159        |
| infj | 170.18 | 77.27272727 | 26.68143614        |
| INFJ | 170.18 | 93.18181818 | 32.17467299        |
| ESFJ | 162.56 | 59.09090909 | 22.36110651        |
| ISFJ | 157.48 | 56.81818182 | 22.91060301        |
| ESFJ | 165.1  | 70          | 25.68052473        |
| ESTJ | 187.96 | 102.2727273 | 28.94869326        |
| ENFJ | 167.64 | 61.36363636 | 21.83513007        |
| infj | 185.42 | 125         | 36.35773832        |
| ISFJ | 170.18 | 86.36363636 | 29.82042862        |
| ENFJ | 170.18 | 81.81818182 | 28.25093238        |
| ISFJ | 160.02 | 63.63636364 | 24.85174122        |
| intj | 170.18 | 70.45454545 | 24.32719177        |
| ISTJ | 185.42 | 75          | 21.81464299        |
| Enfj | 165.1  | 48.63636364 | 17.84296199        |
| ISFJ | 160.02 | 54.54545455 | 21.30149248        |
| Isfj | 167.64 | 58.18181818 | 20.70293814        |
| Isfj | 160.02 | 61.36363636 | 23.96417904        |
| INFJ | 160.02 | 54.54545455 | 21.30149248        |
| Isfj | 152.4  | 97.72727273 | 42.07710436        |
| ISTJ | 177.8  | 87.27272727 | 27.60673425        |
| entj | 162.56 | 58.18181818 | 22.01708949        |
| INFJ | 167.64 | 113.6363636 | 40.43542606        |
| ISFJ | 173.99 | 59.09090909 | 19.5196531         |
| ESFJ | 177.8  | 81.81818182 | 25.88131336        |
| ESTJ | 165.1  | 61.36363636 | 22.51214831        |
| INTJ | 162.56 | 58.18181818 | 22.01708949        |
| ISTJ | 167.64 | 81.81818182 | 29.11350676        |
| esfj | 137.16 | 72.72727273 | 38.65826412        |
| ISFJ | 167.64 | 50          | 17.79158747        |
| INFJ | 162.56 | 58.63636364 | 22.189098          |
| Infj | 170.18 | 63.63636364 | 21.97294741        |
| ISFJ | 160.02 | 77.27272727 | 30.17711434        |
|      |        |             | <b>25.17493978</b> |

## Appendix D

Table 6. Height, Weight, BMI, and Average BMI of all xxxP Participants.

| Perceiving Type | Ht Metric | Wt Metric   | BMI         |
|-----------------|-----------|-------------|-------------|
| INFP            | 182.88    | 81.81818182 | 24.46343277 |
| ENFP            | 162.56    | 64.09090909 | 24.25320014 |
| Enfp            | 172.72    | 84.09090909 | 28.18796924 |
| ESFP            | 165.1     | 64.54545455 | 23.67944488 |
| INFP            | 154.94    | 49.09090909 | 20.4490893  |
| INFP            | 167.64    | 113.6363636 | 40.43542606 |
| Intp            | 185.42    | 109.0909091 | 31.73038981 |
| INFP            | 177.8     | 79.54545455 | 25.16238799 |
| ENJP            | 167.64    | 68.18181818 | 24.26125563 |
| INTP            | 177.8     | 82.72727273 | 26.16888351 |
| ESTP            | 185.42    | 104.5454545 | 30.40829023 |
| INTP            | 193.04    | 77.27272727 | 20.73631697 |
| ENFP            | 167.64    | 55.90909091 | 19.89422962 |
| INFP            | 162.56    | 121.3636364 | 45.92627261 |
| ENTP            | 175.26    | 81.81818182 | 26.63693246 |
| ESFP            | 175.26    | 86.36363636 | 28.11676204 |
| enfp            | 162.56    | 84.09090909 | 31.82157465 |
| entp            | 165.1     | 55.90909091 | 20.51106846 |
| INFP            | 172.72    | 71.81818182 | 24.07404941 |
| ESTP            | 175.26    | 61.36363636 | 19.97769935 |
| ENFP            | 165.1     | 54.54545455 | 20.01079849 |
| intp            | 167.64    | 145.4545455 | 51.75734535 |
| INFP            | 162.56    | 50          | 18.92093628 |
| ESFP            | 167.64    | 63.63636364 | 22.64383859 |
| ENTP            | 167.64    | 77.27272727 | 27.49608972 |
| INTP            | 180.34    | 60.90909091 | 18.72828402 |
| INFP            | 165.1     | 95.45454545 | 35.01889736 |
| Enfp            | 160.02    | 102.7272727 | 40.11781083 |
| ENFP            | 165.1     | 103.1818182 | 37.85376048 |
| ESFP            | 167.64    | 53.63636364 | 19.0855211  |
| ENTP            | 167.64    | 70.45454545 | 25.06996416 |

|      |        |             |                    |
|------|--------|-------------|--------------------|
| ISTP | 172.72 | 86.36363636 | 28.94980625        |
| infp | 182.88 | 100         | 29.89975116        |
| Infp | 182.88 | 100         | 29.89975116        |
| INTP | 180.34 | 101.3636364 | 31.16721892        |
| INFP | 165.1  | 77.27272727 | 28.3486312         |
| enfp | 160.02 | 61.81818182 | 24.14169147        |
| ENFP | 182.88 | 86.81818182 | 25.95842032        |
| ESFP | 175.26 | 80.90909091 | 26.34096655        |
| ENFP | 175.26 | 113.6363636 | 36.99573953        |
| INTP | 129.54 | 40.90909091 | 24.37878421        |
| INFP | 157.48 | 54.09090909 | 21.81089406        |
| ENFP | 165.1  | 81.81818182 | 30.01619774        |
| INFP | 165.1  | 75          | 27.51484793        |
| ESFP | 167.64 | 61.36363636 | 21.83513007        |
| INFP | 165.1  | 74.09090909 | 27.18133462        |
| ESFP | 160.02 | 90.45454545 | 35.32497502        |
| ENFP | 180.34 | 102.2727273 | 31.44674555        |
|      |        |             | <b>27.80851682</b> |

Appendix E  
Application of Results: How to Integrate MBTI into Dietetics Practice

### Alphabet Soup: MBTI in the NCP

This algorithm follows the Academy of Nutrition and Dietetics' Nutrition Care Process and requires use of the IDNT for generation of a PES.

**Notice:**

- Regardless of how a clinician decides to use the MBTI, it is by no means a substitution for the usual assessment, diagnosis, intervention, and monitoring and evaluation.
- This is supplemental and should be used in tandem with the NCP.
- As a dietetics professional, one must always work within the scope of practice, use evidence-based information, implement lab results, participate in interdisciplinary consults, and, above all, exercise clinical judgment.

I. Assessment

- a. Here is a list of certain letters and letter clusters that predispose certain people to the risk of the subsequent nutrition diagnosis (*italicized*).

**i. E, F, P: More likely to be regularly eating fast food, going out to eat**

1. Restaurants, both sit down and fast food, are notorious for loading their food full of salt and rarely offering fruit on the menu.
2. At risk for:
  - a. Symptoms of *metabolic syndrome*: TG greater than 150, total chol greater than 200, LDL greater than 100, HDL less than 40 or 50, waist greater than 40 or 35, and FBG greater than 100 mg/dL.
  - b. For these individuals, sodium may be uncontrolled and nutrients typically found in fruits, such as potassium, dietary fiber, vitamin C, and folate (folic acid) will be limited.

**ii. I, IN, NJ: More likely to forget to eat**

1. At risk for:
  - a. *poor appetite,*
  - b. *inadequate energy or fluid intake,*
  - c. *malnutrition,*
  - d. *wasting.*

**iii. I: Most likely to exhibit deficiencies of micronutrients found in plants**

1. At risk for:
  - a. *Inadequate intake of vitamins A, C, potassium, or fiber,*
  - b. *Increased need for vitamins A, C, potassium, or fiber.*

**iv. E, S, T: Least likely to exhibit deficiencies of micronutrients found in plants, such as vitamins A, C, potassium, or fiber**

- v. J: desiring control
  1. At risk for:
    - a. *developing an eating disorder.*

II. Diagnosis

- a. Once a diagnosis has been established, complete with problem, etiology, and signs and symptoms in the format of a PES statement, if the patient's letters or type correspond with the

nutrition diagnoses below, consider following the suggested nutrition intervention and nutrition Rx ideas while following current AND scopes of practice, diagnostic guidelines, and hospital/workplace protocol.

b. Each intervention follows evidence-based, proven data from my study and/or other studies.

III. Interventions (*italicized*)

a. Food and Nutrient Delivery

i. Meals and Snacks

**a. N types: most open to trying new foods.**

*i. General Healthful diet*

*ii. Composition of meals and snacks*

**b. I, IN, IJ types: most likely to forget to eat**

*i. Schedule of Foods/fluids*

ii. Supplements

**a. I, potentially E, F, P**

*i. Multivitamin/mineral*

*ii. Multi-trace elements*

iii. Bioactive Substance Management

**a. J types: may be dieting, attempting to control their intake, uneducated in improving their health**

iv. Feeding Environment

**a. E, F, P: eating out often**

*i. Distractions,*

*ii. Lighting,*

*iii. Odor,*

*iv. Table service.*

**b. INFP, ESFJ: more likely to want to eat “local” or appreciate the origin of their food**

*i. Meal location*

v. Nutrition-related Medication Management

**a. J types: may be dieting, attempting to control their intake, uneducated in improving their health**

### 16 Types Nutrition Education and Counseling Guide

This algorithm follows the Academy of Nutrition and Dietetics' Nutrition Care Process intervention methods for Nutrition Education and Nutrition Counseling. It does not require the use of the IDNT, but its presence may be helpful in understanding the guide.

- This guide takes advantage of the fundamental reference pair dichotomies to potentially refine nutrition education and nutrition counseling.

#### IV. Nutrition Education

- a. Outpatient is the most practical in using MBTI since
  - i. The patient will be coherent and themselves,
  - ii. You might actually be able to get them to take the inventory.
- b. Presentation of Nutrition Education Content: Appeals to S/N
  - i. Sensors: lots of visuals and hands-on. Food models, measuring cups.
  - ii. iNtuitors: verbal description, lots of concepts and analogies. This is not to say that we can't use food models, but generalize.
- c. Planning Diets (Content/Application): Appeals to J/P
  - i. Judgers: once establishing their dietary habits and diet Rx, prepare a procedure for developing meal plans, create 3-4 days of intake with them there so it is organized.
  - ii. Perceivers: food lists and restaurant menus. Create 1 of each kind of meal and a couple of snacks

#### V. Nutrition Counseling

- a. Theoretical Basis/Approach: Appeals to T/F
  - i. Thinkers:
    1. Cognitive Behavioral Theory
  - ii. Feelers:
    1. Social Learning Theory
  - iii. Other theories/approaches will work well for both.
    1. Strategies:
      - a. I/E
        - i. Introverts: you may need to guide them in revealing information, use lots of probing, but be gentle.
          1. Motivational interviewing
        - ii. Extraverts: let them direct the conversation, but be wary of going off-track.
          1. Well-monitored MI
          2. Social support
- b. T/F
  - i. Thinkers: problem solving
  - ii. Feelers: social support
- c. BOTH T/F
  - i. Motivation for Nutritional Improvement and/or Well-being
- d. J/P
  - i. Judgers: self-monitoring, may require cognitive restructuring
  - ii. Perceivers: self-monitoring may pose a problem

VI. Coordination of Care

- i. Referral to RD with expertise
  - 1. Use PRN.
- ii. Referral to community agency or program: for money
  - 1. *ESTJ, ISFJ: most likely to purchase cheaper food, perhaps most likely to have lower incomes*
- iii. Discharge and transfer to RD
  - 1. Use PRN.
- iv. Discharge and transfer to agency or program: for money
  - 1. *ESTJ, ISFJ: most likely to purchase cheaper food, perhaps most likely to have lower incomes*