

Food Insecurity Project

Morgan Sinclair
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Table of Contents

Title	Page Number
Cover Page.....	1
Table of Contents.....	2
Foods Purchased.....	3
Receipt.....	4
Recipes.....	5
Food Insecurity Journal – Before.....	6-7
5-Day Food Recall & Daily Journal.....	8-16
Tuesday, October 7, 2014.....	8-9
Wednesday, October 8, 2014.....	10
Thursday, October 9, 2014.....	11-12
Friday, October 10, 2014.....	13-14
Saturday, October 11, 2014.....	15-16
Food Insecurity Journal – After.....	17
Nutrient Analysis of 5-Day Diet.....	18-20
Average of Food Groups & Calories.....	18
Average of Nutrients.....	19-20
Actual Nutrient Intake Compared to EER for Calories and DRI for Nutrients.....	21
Actual Dietary Intake Compared to DRI Goals and DGA Recommendations.....	22-23
Barriers Faced.....	24

Foods Purchased

Fruits/Veggies

H-E-B Frozen Spinach IQF - 0.34oz

H-E-B Frozen Pineapple IQF - 0.34oz

H-E-B 1 fresh Squash – 0.38#

H-E-B 1 fresh Zucchini – 0.34#

H-E-B 3 fresh bananas – 1.14#

Meats/Dairy

1 package Hill Country Fare Chicken Breast Cutlets – 1.31#

½ gallon H-E-B Brand 1% Milk

Aisle

H-E-B Bakeshop Whole Wheat Bread – 16ct.

Hill Country Fare Peanut Butter - 18oz

H-E-B Reduced Sodium Chicken Broth - 32 oz

H-E-B “Boil-in-a-bag” Brown Rice (4 - 43g dry rice bag)

Chosen condiments: Soy Sauce

Receipt

Recipes

Spinach-Pineapple-Banana Smoothie

1/2c frozen spinach

1/2 of a banana

1/2c frozen pineapple

1c lowfat milk

1. Combine all ingredients into a blender.
2. Blend until all the spinach is finely blended and there are no chunks.

Chicken Tortilla Soup

4 cups Chicken Broth

1 zucchini

2 cups water

1 squash

4 Chicken Breast Cutlets

Salt & pepper to taste

1. Put chicken stock and water in a large pot with the chicken. Bring to a low boil over high heat, then turn heat to medium and cook until chicken is slightly tender, around 30 minutes.
2. While chicken is cooking, chop zucchini and yellow squash.
3. When chicken is tender, remove from liquid and cut into small, bite-size pieces.
4. Add chicken back to chicken stock and add chopped zucchini, squash, and salt and pepper to taste. Bring back to a light boil until vegetables are tender, around 5 minutes after liquid begins to bubble.

Food Insecurity Journal - Before

My Primary Goal

One thing that I wanted to accomplish with the project is not just eating “bland” food for all my meals. While this may limit me to eating the same foods every day, I really wanted to incorporate versatile, healthful, colorful, and tasteful meals. Several of the meals I prepped are meals that I would normally cook or eat, but I modified the recipes in order to stay within my budget.

Panic and Worries

I had several concerns before participating in this simulation.

First and foremost, I began training for a half marathon a week and a half prior to beginning this project. This has required me to consume more calories due to increased energy expenditure.

Trying to incorporate training into a limited diet was one of my biggest concerns because I was afraid that I would be harming my body with not consuming proper nutrients post-workout.

My second concern was my work environment. During work, I have access to a fairly unlimited supply of food. This includes protein bars, beef jerky, fresh fruit, applesauce, peanut butter and jelly sandwiches, frozen fruit smoothies, and protein shakes. During work every Monday, Wednesday, and Friday morning, these food items normally make up my breakfast and lunch, meaning I wouldn't have to buy food for those days. One of the hardest parts of this project was refraining from consuming those free foods.

In addition to this social environment, I promised myself that I wouldn't let this “diet” affect my social activities. Thus, I attended all the social events I had planned, but prepped accordingly to be full before I arrived and resist temptation (which was *EXTREMELY* difficult).

A more minor concern was not being able to meet my DRIs for calcium. Due to being lactose intolerant, I avoid consuming more than 8oz of dairy a day. Normally, I would supplement

almond milk to get my calcium or take a supplement, but neither would fit into my budget for this project.

Lastly, I was raised in a household that consumed primarily homegrown, fresh, organic foods. Our meats go straight from farm to table from a farm in a small Texas town and a lot of our produce and vegetables are organic or come from my grandparent's garden. I attribute my good health to consumption of these types of food. However, organic foods are priced higher than non-organic foods and this project prohibited me from purchasing organic foods if I was going to stay within a budget and recommended caloric intake. While I'm aware that five days shouldn't affect my health drastically, I had to make drastic changes when purchasing foods.

The Budget

The budget was extremely reasonable for me to purchase all the foods I needed. I was concerned at first, because my initial grocery list was longer than the actual foods I purchase, but having spent less than the allotted amount and still consuming enough foods, I felt the \$19.25 was an appropriate and do-able amount for five days.

Shopping Habits

As far as shopping habits, this budget required me to race back and forth across the store as I realized my initial shopping list was not working. I spent much more time in the produce section carefully selecting foods that added up to the ideal weight for the ideal price. A lot of my shopping required me to look at the price per ounce and which one would be most beneficial for a 5-day diet. I'm normally not concerned with the price of the foods, rather the quality of the foods I am purchasing, but for this project price was all I was focused on.

Day One: Let's Get This Started (Tuesday, October 7)

My daily schedule mandates that I wake up early (normally around 5:00am) and go to sleep late (normally around 10:30pm). While I am productive during this time frame, it widens my time frame to eat and fuel my body. Upon waking up at 5:30am, I was hungry. However, I have to consider my two roommates when I wake up and begin to cook breakfast. My first meal was going to be a spinach-pineapple-banana smoothie, in which case I would have to use the (loud) blender. I eventually gave in around 6:50am to make my breakfast and hoped that I didn't bother them too horribly. Normally, a Tuesday morning breakfast would consist of a Starbucks cappuccino and bagel with reduced-fat cream cheese while I prepare for my Tuesday classes.

Breakfast	Spinach-Pineapple-Banana Smoothie Recipe
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By the end of my first class, around 9:30am, I would normally have eaten a snack, typically nuts, to fuel my brain for my next class. However, I didn't pack a snack because I didn't purchase snack-type foods for the next five days. As you can imagine, I was very hungry at this point. I attribute this to not consuming a protein (aside from dairy) with my breakfast, and my lesson was learned. It was extremely hard to focus during class and I could not wait to get home and eat lunch. Upon eating lunch, I was extremely full.

Lunch	2 tablespoons Hill Country Fare Creamy Peanut Butter 1 cup of HEB "Boil-in-a-Bag" Long Grain Brown Rice 1 tablespoon of Soy Sauce (chosen condiment #1)
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One issue I ran into was mindless snacking. I love snacking on "grabby" foods when I study, so I have a stash of Goldfish, mini chewy Sweetarts, dark chocolate covered blueberries, and pistachios. After eating lunch, I normally sit at my desk to study. I automatically reach for my snacks and today, I had to stop myself and put some of the food out of sight, out of mind.

My lack of caffeine in the morning caught up with me during my last class of the day. I normally consume a cappuccino in the morning or a Crystal Light caffeine packet in the afternoon to give me the burst of energy I need to make it through the day. Dinner was eaten around 5:20pm, which is normally extremely early for me, but since I didn't snack as much as normal, I was extremely hungry. Plus, I had an NDA meeting at 6:00pm and knew I wouldn't make it until after the meeting.

Dinner	1.25 cups of Chicken Tortilla Soup
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After my meeting, I went for a 3.5 mile run, the planned amount for my half marathon training. When I got home, I ate 2 pieces of toasted bread, which filled me up for a while, but I ended up going to bed early due to exhaustion and hunger.

Night Snack	2 slices of whole-wheat bread, toasted
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Day Two: It's Always Harder the 2nd Day (Wednesday, October 8)

My morning began again at 5:00am with my work shift starting at 6:15am. I knew this was going to be the hardest part of the simulation going into it due to the plethora of food I am allowed to consume at my job. I prepared myself going in with a smoothie and peanut butter – much needed protein to withstand all the jerky and protein shakes and bars at work! I also kept chugging water to make sure I stayed full.

Breakfast	Spinach-Pineapple-Banana Smoothie Recipe 2 tablespoons Hill Country Fare Creamy Peanut Butter
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After work, I had genetics lab, which normally keeps me busy enough that I don't focus on my hunger. When I got home, I went for a 2-mile run and did legs/abs at the gym for 45 minutes. By the end of this, I was *starving*, so I added a piece of toast and extra cup of rice to my “usual” lunch.

Lunch	2 tablespoons Hill Country Fare Creamy Peanut Butter 1 slice of whole-wheat bread, toasted 2 cups of HEB “Boil-in-a-Bag” Long Grain Brown Rice 1 tablespoon of Soy Sauce (chosen condiment #1)
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The rest of the afternoon was spent doing homework, and I was happily full and content without temptation to snack. I knew I was going to have an extremely busy evening, with visiting the University Writing Center at 6pm, followed by a tutoring session at 8pm, so I made sure to eat dinner as close to my departure time as possible.

Dinner	1.25 cups of Chicken Tortilla Soup 2 slices of whole-wheat bread, toasted
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I started to get hungry at the beginning of my hour-long tutoring session, but thankfully had a full bottle of water with me that I continuously drank to keep full, and hydrated. Right when I got home, I got ready for bed and fell asleep around 9:30pm thanks to my early morning work shift and in preparation for the longest day ever that was to come the following day.

Day Three: Halfway There! (Thursday, October 9)

This was probably one of my busiest days this whole semester, which I was extremely worried about when planning foods and meal times. I was constantly on the go and didn't plan foods to-go accordingly. My morning began with my 5am alarm, a quick breakfast at home, and a trip to Starbucks to study, because I knew if I stayed at home, I would crawl right back into bed. So I proudly presented my personal, 24oz tumbler to them for some delicious ice water. I don't think they were too pleased that I was taking up space in their store and didn't pay for anything.

Breakfast	Spinach-Pineapple-Banana Smoothie Recipe 2 tablespoons Hill Country Fare Creamy Peanut Butter 1 slice of whole-wheat bread, toasted
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Majority of my day was spent running around west campus with class at 8am, class at 9:35am, a presentation in NUTR 301 at 11:10am, reviewing an old exam in Wehner, another presentation in NUTR 203 at 12:20am, and a meeting with my boss at 1pm. Finally, I was able to go home for just enough time to throw together lunch, only to bolt out the door again for class at 2:20pm. I was expecting to be extremely hungry all morning, but I think because I was so busy my hunger didn't hit me until I got home and made lunch. Thank goodness today was my off-day for training or I might not have made it through the day.

Lunch	½ of a banana, sliced 2 tablespoons Hill Country Fare Creamy Peanut Butter 1.5 cups of HEB "Boil-in-a-Bag" Long Grain Brown Rice 1 tablespoon of Soy Sauce (chosen condiment #1)
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The rest of my evening was more back-to-back commitments. After class, I had promised my co-worker I would go take over her shift so she could study for an exam and after work (with more tempting food), I was meeting my study abroad group at Chuy's (with tempting queso and margaritas). I (grudgingly) held up my promise to myself that I wouldn't let this project affect

my social activities. This rendezvous with my friends from Italy was the hardest of them all, as I had to plug my nose on all the delicious smells that were coming from the kitchen, which was conveniently located right next to our table. It was an absolute struggle to avoid getting something. Obviously, the second I got home, I sprinted to the kitchen to calm my rumbling stomach.

Dinner	1.25 cups of Chicken Tortilla Soup 2 slices of whole-wheat bread, toasted
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The rest of the night was spent doing homework and prepping fruit salad for an event that Aggies Move was hosting the following day. I would be lying if I said that this was almost as tempting as the Chuy's. Due to my lack of fruit in my diet, I was craving the apples and grapes and clementines that were used in the salad. But I withheld and went to bed as soon as I could.

Day Four: TGIF (Friday, October 10)

Have I mentioned how exhausting it is to have an alarm go off at 5:00am every morning? Off to work I went after the usual breakfast. I was getting extremely tired of this breakfast since I'm so used to getting a variety of foods at work. I had to duck out of work early today since Aggies Move started at 8:00am.

Breakfast	Spinach-Pineapple-Banana Smoothie Recipe 2 tablespoons Hill Country Fare Creamy Peanut Butter 1 slice of whole-wheat bread, toasted
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Aggies Move kept me busy enough to forget about being hungry, but the moment it ended, hunger hit my hard. Luckily, I had packed a small container of peanut butter to munch on while I headed to Los Cucos to meet a high school friend who had questions about switching majors. Again with the Mexican food... SO TEMPTING. It also made for an extremely awkward encounter with my friend from high school because she was uncomfortable eating by herself. I should have suggested coffee.

First Lunch	2 tablespoons Hill Country Fare Creamy Peanut Butter
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Upon arrival home, I went to a quick 3-mile run and soon fell asleep for 3 hours due to exhaustion. It was a much-needed nap after an incredibly long week. When I woke up, I finished off the rest of my lunch and spent the remainder of the afternoon working on homework and hanging out with friends and neighbors.

Second Lunch	2 cup of HEB "Boil-in-a-Bag" Long Grain Brown Rice 1 tablespoon of Soy Sauce (chosen condiment #1)
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While everyone else ordered pizzas and pizza rolls, I went home and reheated soup and toasted bread. I had to keep telling myself that there was only one day left and Sunday would be a binge day of all the foods I've missed out on. Not only did I miss out on pizza, but also the crew went

out to Northgate. I offered to be DD because I knew if I wasn't, I would most definitely order something at the bars.

Dinner	1.25 cups of Chicken Tortilla Soup 2 slices of whole-wheat bread, toasted
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Day Five: BTHO Ole Miss! (Saturday, October 11)

Ahhhhh, Fightin' Texas Aggie gamedays. Saturdays in the fall are my favorite time of year. Full of tailgating, grilling, overly priced concession stand food... all of which I couldn't eat today. Breakfast was the usual. I wasn't overly hungry when I woke up - *after 5am* - so I just ate a smoothie right when I woke up and saved my peanut butter toast for 2 hours later when I wanted to bored-eat while studying.

Breakfast	Spinach-Pineapple-Banana Smoothie Recipe 2 tablespoons Hill Country Fare Creamy Peanut Butter 1 slice of whole-wheat bread, toasted
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The beginning of the day wasn't very exciting... mainly just studying and preparing for exams the following week. I got hungry around 11:00am and made lunch (minus the usual peanut butter).

Lunch	2 cup of HEB "Boil-in-a-Bag" Long Grain Brown Rice 1 tablespoon of Soy Sauce (chosen condiment #1) 2 tablespoons Hill Country Fare Creamy Peanut Butter
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But then the tricky part came... trying to balance my food the rest of the day despite going to tailgates before the game and maintaining fullness throughout the game. What was I going to do?! That's a really long time without eating... I ate dinner as close to departure time as possible and packed the 2 tablespoons I didn't consume during lunch as well as the largest water bottle I could find to keep my stomach full.

Dinner	1.25 cups of Chicken Tortilla Soup 2 slices of whole-wheat bread, toasted
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If I thought avoiding eating Chuy's was the hardest part of this project, I was wrong. It was not consuming my abnormally large popcorn bucket that I normally get at every home football

game. It was not eating the delicious BBQ that all the tailgates offered me, and eating peanut butter off of a spoon instead. It was not eating from around 3:00pm until after getting home from the game around 10:00pm. This was the one time that I left a football early, and I couldn't be happier that I did. I went to bed the second I got home from being SO hungry. I could not wait to wake up the next morning and make a trip to Starbucks for a Venti cappuccino and bagel, and cookie, and any other snack foods I could find. I had completed it though. While it wasn't easy all the time, I was able to stay strong for 5 days and not give in to any food temptations.

After the Fact

After completing this project, my eyes are now open to a whole new way of meal planning and preparation. While this project was extremely challenging, it wasn't much different than my normal diet as far as recipes and meal prep are concerned. After buying all the groceries, I spent a few hours in the kitchen prepping all my food for the next five days, which is my normal routine on Sundays. However, I do enjoy eating out once or twice a week, consuming free foods at work, and snacking almost endlessly throughout the day.

Throughout this project, I realized how much of a struggle it could be to make it through the day. Knowing I had a rough week ahead, I tried to ration out my food in the beginning, which only made me exhausted. I craved my normal snacks and my daily Starbucks runs. While this was manageable to complete for a five-day period, I think a month, year, or several years would be incredibly difficult. I used to be very narrow-minded about food stamps and SNAP before this course, but after learning about (and living like) SNAP users do, I can tell it truly is a concern for the US government and I understand why the poverty levels are so incredibly low. However, if there was one overarching lesson that I learned from this project, it's don't take anything for granted – including your education. Learn as much as you can while you have access to incredible resources and use those resources and your knowledge to make a difference in the environment. I had never considered community nutrition as a long-term profession, but the idea is growing on me rapidly and I have never wanted so badly to help others.

Nutrient Analysis (3 PAGES)

Actual Nutrient Intake Compared to EER for Calories and DRI for Nutrients

Actual Dietary Intake Compared to DRI Goals and DGA Recommendations

When purchasing my groceries for the five days, I thought that I had a pretty balanced diet. The only concerns I had were fruit consumption and dairy consumption, which ended up being two of my lowest categories in comparison with the DRI. When looking at my comparison, I realized that my diet was not at all balanced, even though I would still consider it a “healthy” diet. I didn’t meet several of my recommendations including:

Dietary Fiber, Vitamin B12, Vitamin C, Vitamin D, Vitamin E, Folate, Thiamin, Choline, Calcium, and Potassium.

If I could have consumed more milk products by not being lactose intolerant, I could have increased calcium, vitamin D, and vitamin B12. One thing lacking in my diet was a variety of fruit, which could contribute to my potassium and vitamin C. Another major food group that wasn’t consumed was eggs, which are prominent sources of choline and vitamin B12.

I am unsure why my dietary fiber, folate, and thiamin were so low since I consumed adequate amounts of whole wheat bread and rice, but I could have also added corn to my diet to consume more. I am also unsure of my inadequate vitamin E consumption due to the vast amounts of peanut butter I consumed, but I could have added more nuts to my diet such as almonds and sunflower seeds.

Overall, I felt that while several of my vitamins were inadequate to the recommended amounts, in actuality they weren’t abnormally low with some of them falling short by only 0.1mg.

One primary food that I should have looked into consuming more of was eggs. This would have supplied several more vitamins and protein, in which I could have gotten rid of the chicken in the soup and replaced it with corn and possibly added another fruit to consume. With the chicken

breasts costing \$4.55, I could have spent that money on half a dozen eggs (~\$1.19), corn (~\$1.34), and spend the remaining money (~\$2.02) on more fresh fruit such as oranges (~3 oranges) to fix my vitamin C deficiency.

	Average Intake	DRI	DGA
Protein	90 grams	46 grams	46 grams
Carbohydrate	166 grams	130 grams	130 grams
Total Fiber	22 grams	25 grams	28 grams
Saturated Fat	7%	<10%	<10%
Cholesterol	116 mg	<300mg	<300mg
Vitamin A	776 mcg RAE	700 mcg RAE	700mcg RAE
Vitamin B6	2.4 mg	1.3 mg	1.3 mg
Vitamin B12	1.7 mcg	2.4 mcg	2.4 mcg
Vitamin C	62 mg	75 mg	75 mg
Vitamin D	3 mcg	15 mcg	15 mcg
Vitamin E	10 mg	15 mg AT	15 mg AT
Vitamin K	564 mcg	90 mcg	90 mcg
Folate	287 mcg	400 mcg	400 mcg
Thiamin	1 mg	1.1 mg	1.1 mg
Riboflavin	1.3 mg	1.1 mg	1.1 mg
Niacin	38 mg	14 mg	14 mg
Choline	287 mg	425 mg	425 mg
Calcium	659 mg	1,000 mg	1,000 mg
Potassium	2426 mg	4,700 mg	4,700 mg
Sodium	1942 mg	<2,300 mg	<2,300 mg
Copper	1439 mcg	900 mcg	900 mcg
Iron	9 mg	18 mg	18 mg
Magnesium	487 mg	310 mg	310 mg
Phosphorus	1311 mg	700 mg	700 mg
Selenium	114 mcg	55 mcg	55 mcg
Zinc	9 mg	8 mg	8 mg

In the comparison between DRIs and DGAs, there was only one category that differed, which was dietary fiber. Either way, I still fell short of the recommended amount, in addition to all the other deficiencies that were present.

Barriers Faced

Barriers, other than financial resources, included:

Time spent planning and prepping. While this may be an easy task to complete as a student, some participants of SNAP may not be able to spend all afternoon grocery shopping and then preparing meals to eat throughout the week. Having to factor in budget added a shocking amount of time that I spent in the grocery store, as well as making sure I had all the proper utensils at home to prep them and store them, which are all an added cost.

Temptation and stressful times. This was one of the hardest parts of this project. The world is constantly offering new flavors and products that are extremely tempting to buy into, even though they may not be the healthiest choice. This week was especially stressful for me, and all I wanted to do was grab for the bag of chocolate and a pint of ice cream. Users of SNAP benefits are often unable to buy these “comfort” foods.

Meeting the DRIs and DRAs. Going into the project, I felt I had a pretty good understanding of my diet in order to comply with the recommended amounts of nutrients. I was extremely mistaken, as a major in nutrition! Most people probably don’t even understand what their DRIs and DRAs are, much less worried about trying to meet them. I had to look up several of the vitamins and minerals I was deficient in to find good sources of these foods. The general public might not have access to these resources to find which foods are best to consume.