

Preferable Lunch Statistics Project

By: Tice Jenkins



Agenda

- **Introduction** (what was my topic and hypothesis)
- **Data Collection** (how and from whom did I collect data from)
- **Graphs/Summaries** (differences in the grade levels and schools answers)
- **Discussion/Conclusion** (interesting thoughts and what I understood)

Introduction

Question

12th Graders: “Of the three options you have for lunch (school, home, or out to eat) what lunch is the best option in your opinion?”

9th-11th Graders: “Of the two options you have for lunch (school or home) what lunch is the best option in your opinion?”

My hypothesis...

was that giving 12th graders an extra option (3) compared to the rest of the high school (2) it wouldn't make a big impact on my data due to other side factors like convenience, money, and time management.



Why I chose this topic?

- Overall curiosity
- Never have gone out to eat during school lunch



Data Collection (Proportions)

- 9th Grade
 - $55/167 = .33$
 - $.33 \times 25 = 8.25$ (8)
- 10th Grade
 - $41/167 = .25$
 - $.25 \times 25 = 6.25$ (6)
- 11th Grade
 - $31/167 = .19$
 - $.19 \times 25 = 4.75$ (5)
- 12th Grade
 - $40/167 = .24$
 - $.24 \times 25 = 6$ (6)

Data Collection (Assigned Number Range)

- 9th Grade
 - RandInt (1,55,20)
- 10th Grade
 - RandInt (1,41,20)
- 11th Grade
 - RandInt (1,31,20)
- 12th Grade
 - RandInt (1,40,20)

Data Collection (Obtaining Random Samples)

- From the random number generator I took the first numbers according to the proportion of the test samples in their class
- If numbers were repeated, cross out and go to the next number



Data Collection

(Collection Method)



When I asked my test samples, I asked them in various ways through snapchat, iMessages, or in person.



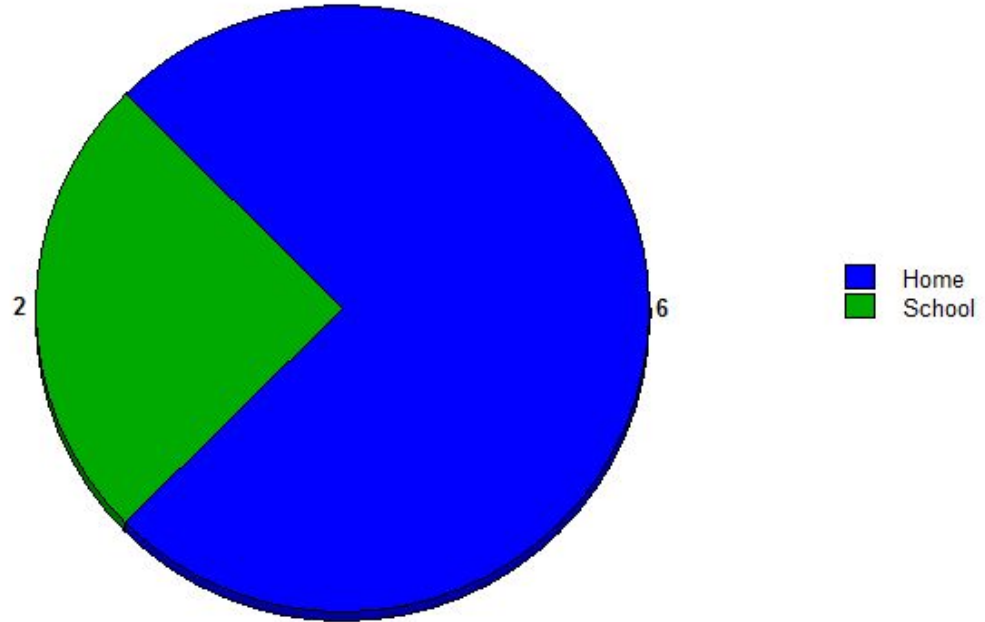
Raw Data

9th Graders

Out of the 8 asked...

| Home | School |
|---------|---------|
| 6 (75%) | 2 (25%) |

Lincoln Lutheran 9th Grade Preferability of Lunch



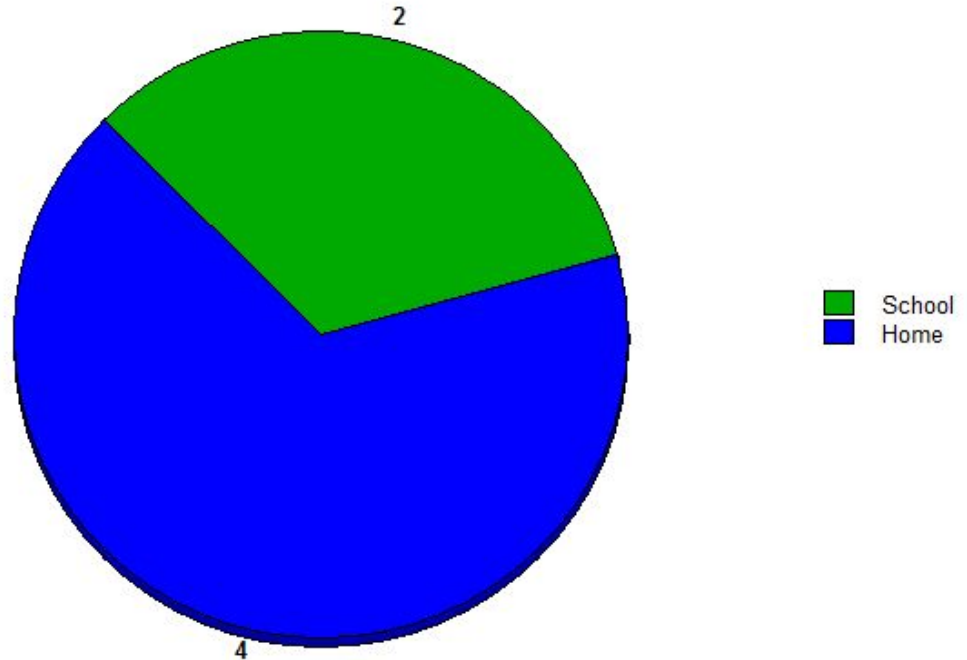
Raw Data

10th Graders

Out of the 6 asked...

| Home | School |
|---------|---------|
| 4 (67%) | 2 (33%) |

Lincoln Lutheran 10th Grade Preferability of Lunch



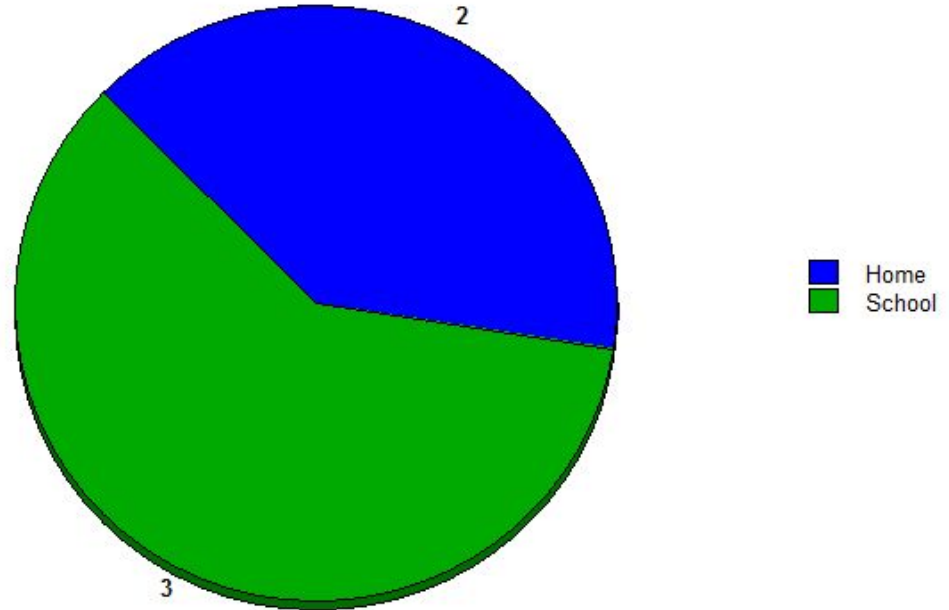
Raw Data

11th Graders

Out of the 5 asked...

| Home | School |
|---------|---------|
| 2 (40%) | 3 (60%) |

Lincoln Lutheran 11th Grade Preferability of Lunch



Raw Data

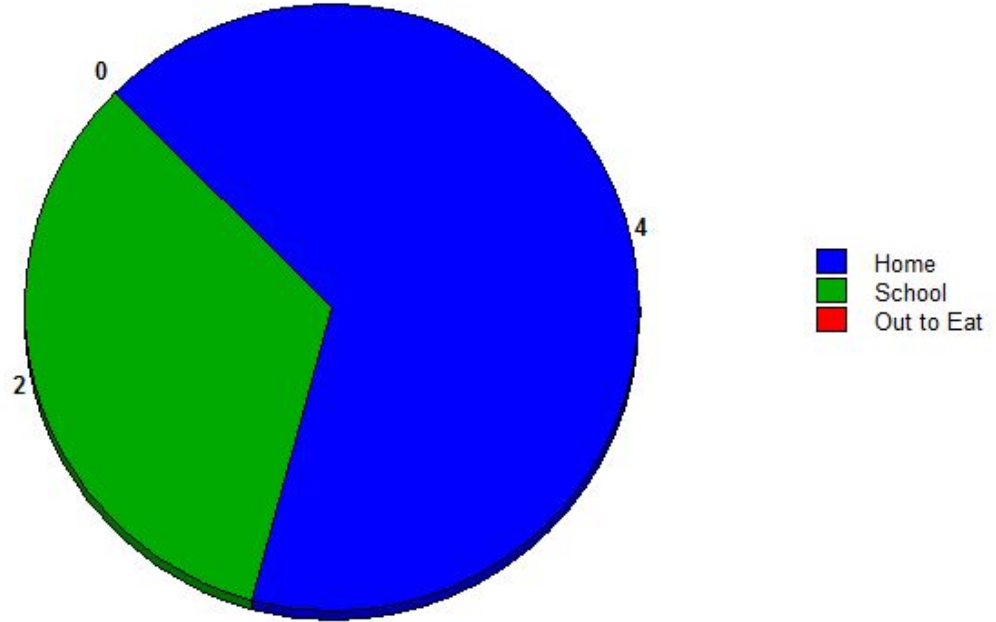
12th Graders

Out of the 6 asked...

| Home | School | Out to Eat |
|---------|---------|------------|
| 4 (67%) | 2 (33%) | 0 (0%) |



Lincoln Lutheran 12th Grade Preferability of Lunch



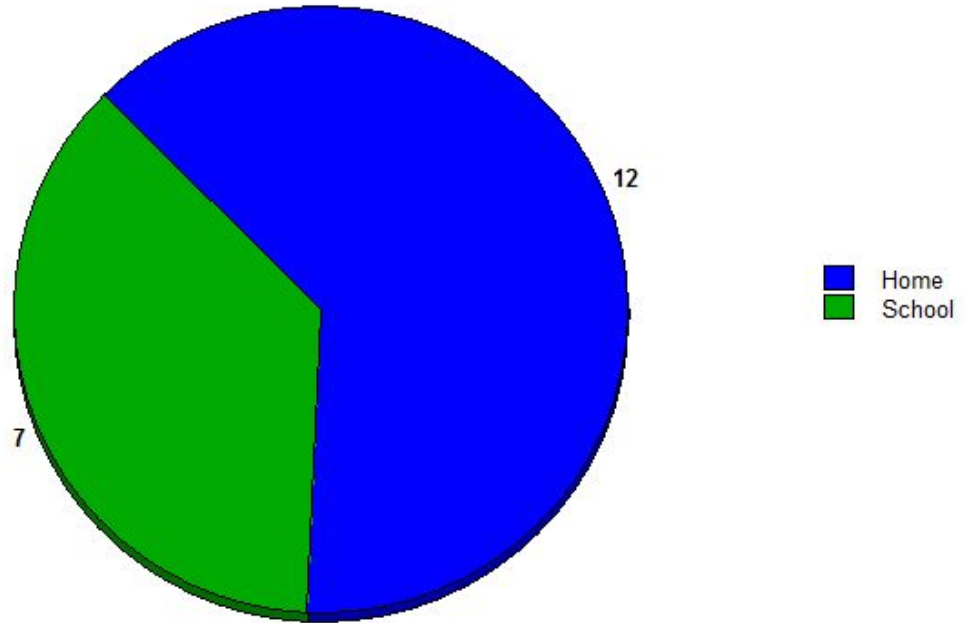
Raw Data

9th - 11th Graders

Out of the 19 asked...

| Home | School |
|----------|---------|
| 12 (63%) | 7 (37%) |

Lincoln Lutheran 9th-11th Grade Preferability of Lunch



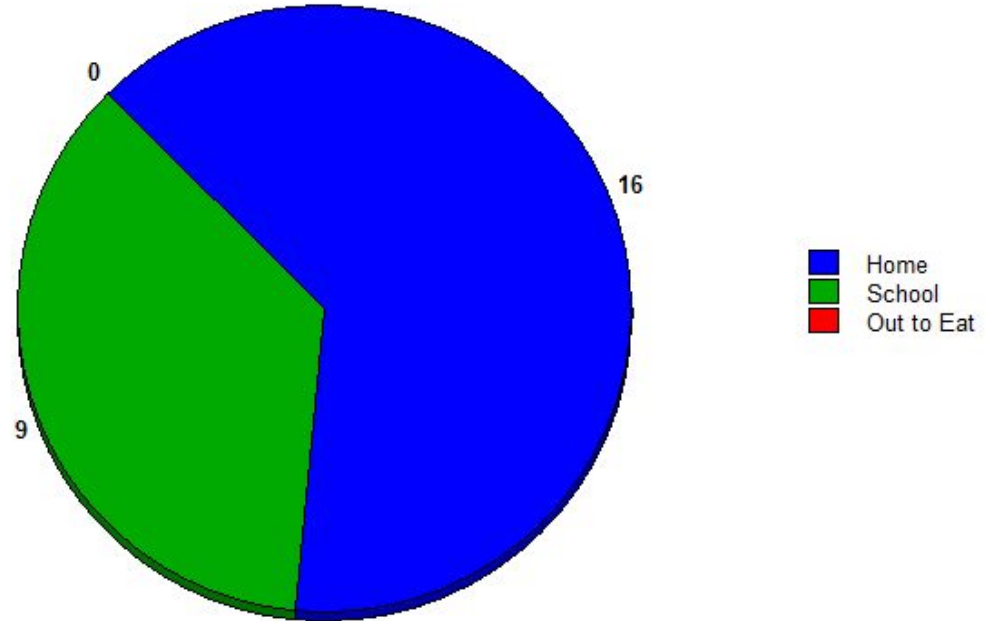
Raw Data

9th - 12th Graders

Out of the 25 asked...

| Home | School | Out to Eat |
|----------|---------|------------|
| 16 (64%) | 9 (36%) | 0 (0%) |

Lincoln Lutheran 9th-12th Grade Preferability of Lunch



Summary

- 9th - 11th Grade
 - Home (12) 63%
 - School (7) 37%
- 9th - 12th Grade
 - Home (16) 64%
 - School (9) 36%
 - Go Out to Eat (0) 0%



Conclusion

- In conclusion, the 12th graders (seniors) did not significantly affect the data of the rest of the high school (9th-11th graders). The percentages barely changed therefore my hypothesis was correct.
- I believe that when I asked my subjects the questions they took in consideration of...
 - 'What's more convenient?'
 - 'What's the healthiest option?'
 - 'How much money can I spend?'

Discussion

- The thing that I thought I could have been better at is the way I asked my subjects. It wasn't very consistent and me asking someone face to face could have been a lot more intimidating than sending a text or a survey.
- I feel like I could have done a more specific study instead of so broad. I didn't interchange the idea about side factors with my question.
- There are definitely a lot of follow up research questions that could follow this question to be of why the subjects chose what they chose.

Questions?