

CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

Name(s)

Daniel A. Kruger

Project Number

J0312

Project Title

Got Trash? II

Abstract

Objectives/Goals

My project title is Got Trash? II. My purpose in doing this project was to see if there is more plate waste now or three years ago. I decided to do this experiment, because three years ago, when I did my science project on plate waste, our cafeteria was serving more food with less healthy items. Two years ago our cafeteria made menu changes that reduced the amount of food served and added healthier items. I was curious to see if students were throwing away more or less food with these changes. My hypothesis is that there is now more platewaste.

Methods/Materials

Equipment: Small scale that weighs in ounces, large scale that weighs in pounds

Everyday,I would weigh a sample tray being served and record the weight. Next I would write down the menu for the school lunch being served that day. After lunch I would go to the cafeteria and use the scale that measures in pounds to weigh the now full trash cans. I also wrote a survey that asked students what they liked and disliked about the cafeteria menus.

Results

Year 2006: 2300 lbs. waste, 264 oz. tray weight, 1984 students served 11 days.

Year 2008: 1513 lbs. waste, 285 oz. tray weight, 2517 students served 15 days.

Year 2006: 2300 lbs/11days = 209 lbs. avg. daily waste, 264 oz/11 days=24 oz. avg. daily weight of tray,

1984 students/11 days = 180 avg. of students served

Year 2008: 1513 lbs/15 days=101.87 lbs. avg. daily waste, 285 oz/15 days=19 oz avg. daily weight of

tray, 2517 students/15 days =168 avg. of students served

2006:180 avg. students served X 24 oz. avg. tray weight = 4320 oz/16 = 270 lbs.

270 avg. lbs. served - 209 avg. lbs. waste = 61 avg. lbs. eaten/day

2008: 168 avg. students served X 19 oz. avg. tray weight = 3192 oz/16 = 200 lbs

200 avg. lbs. served - 102 avg. lbs. waste - 98 avg. lbs eaten/day

Conclusions/Discussion

My hypothesis was that there is more plate waste now than three years ago. I thought that there would be more plate waste, because the lunches now include healthier foods. My data showed that my hypothesis was wrong. There was less plate waste, yet the students thought they were eating less according to surveys. If I were to do this experiment again, I would test more days.

I would summarize my results as follows: The cafeteria is serving less food per student. The cafeteria is serving healthier food. The students are eating more, but the majority of them do not think so.

Summary Statement

My project is about how much cafeteria food is wasted at my school.

Help Received

My mother helped type the report.