

# CALIFORNIA

## Section 1: School Demographics

### School Name

R. I. Meyerholz Elementary School

### Principal's name

Drew Coleman

### School Address

6990 Melvin Dr. San Jose, CA 95129-2858

6990 Melvin Dr

California San Jose

United States

[Map It](#)

### Number of students (total enrollment)

773

### Lowest grade

0

### Highest grade

5

### This school is:

- A public school

Please explain:

### Number of students by grade level

Elementary or lower	Middle grades	High or upper school
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773

0

0

### Number (or percent) of students eligible for free or reduced lunch

Free lunch	Reduced lunch	Neither free nor reduced lunch
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2%

2%

96%

## **Section 2: Background about school lunch**

**How many students buy lunch in the school's cafeteria?**

31 to 50 percent

**How many minutes do students have to eat lunch?**

45

**Are students allowed to eat lunch in rooms/buildings other than the cafeteria?**

Yes

**Are students allowed to leave campus for lunch?**

No

Which students are allowed to leave campus for lunch?

**Are there any times during the school year when breakfast or lunch is free to all students?**

No

Please explain:

**Who controls the portions and servings students receive?**

Meals are prepackaged, students and staff do not affect portions or servings received

Please explain:

**Does the school serve set meals (e.g. chicken nuggets with potatoes and carrots) or can students choose what they want from the menu?**

The students can pick which sides they would like, if any

Please explain:

**Are fruits/vegetables required with every meal?**

Yes, fruits/vegetables are included in the price

**In your teams' opinion, are students content with the meal options at school?**

Neutral

Please explain:

We did an oral survey and found that most students liked the food on some days, while they did not like it on others. We concluded that students are sometimes content with the meal options.

**What type of utensils do students use to eat?**

Disposable utensils, such as traditional plastic

Please explain:

**What type of plates/trays are used to serve the food?**

Compostable paper plates or trays (specifically labeled or marketed as compostable)

Please explain:

### **Section 3: Food waste activities at the school**

**Does the school use any of the following waste reduction activities?**

- Procedures put in place to reduce food loss to expiration
- Recess occurs before lunchtime

Please explain:

**Has the school performed a food waste audit previously?**

No, the school has discussed an audit but decided not to move forward

Please explain:

**Which of the following generates the majority of food waste at your school?**

Student food waste

Please explain:

**On average, do you think food waste is an issue at your school?**

Yes, very important

### **Section 4: School Waste Data Form**

**School name**

R. I. Meyerholz Elementary School

**Date of audit**

03/23/2017

**Students in attendance on day of audit**

738

**Numbers of lunches served on day of audit**

293

**Menu served on day of audit**

Sweet & Sour Chicken

or

Chana Masala (V)

Brown Rice

Cucumber Coins

Assorted Fruit

**Waste type: Unopened food**

<b>A: Type of food</b>	<b>B: Number of items</b>	<b>C: Weight of empty bin</b>	<b>D: Total weight</b>	<b>E: Net weight (Total - Empty)</b>
Fruit Sides	94	2 Pounds	13 Pounds	11 Pounds
Vegetable Sides	66	2 Pounds	9.5 Pounds	7.5 Pounds
Milk cartons	50	2 Pounds	3 Pounds	1 Pounds
Chana Masala	6	2 Pounds	2.5 Pounds	.5 Pounds
Sweet & Sour Chicken	4	2 Pounds	2.5 Pounds	.5 Pounds

**Total net weight of unopened food**

20.5

**Notes regarding unopened food**

Very few main dishes were left unopened

**Waste type: Food waste**

<b>A: Bin/Bag Number</b>	<b>B: Weight of empty bin</b>	<b>C: Total weight</b>	<b>D: Net weight (Total - Empty)</b>	<b>E: Picture taken of the bin? (Y/N)</b>	<b>F: Percent full</b>
1	9	65	56	N	83
2	9	56	47	N	62
3	9	51	42	N	53

**Total net weight of food waste**

145

**Waste type: Liquid waste**

<b>A: Bin/Bag Number</b>	<b>B: Weight of empty bin</b>	<b>C: Total weight</b>	<b>D: Net weight (Total - Empty)</b>	<b>E: Picture taken of the bin? (Y/N)</b>	<b>F: Percent full</b>
1	9	62	53	N	20
2	9	78	71	N	27

**Total net weight of liquid waste**

124

**Waste type: Recycling**

<b>A: Bin/Bag Number</b>	<b>B: Weight of empty bin</b>	<b>C: Total weight</b>	<b>D: Net weight (Total - Empty)</b>	<b>E: Picture taken of the bin? (Y/N)</b>	<b>F: Percent full</b>
1	9	18	9	Y	65
2	9	20	11	N	74

**Total net weight of recycling**  
20

**Waste type: Other (Landfill)**

<b>A: Bin/Bag Number</b>	<b>B: Weight of empty bin</b>	<b>C: Total weight</b>	<b>D: Net weight (Total - Empty)</b>	<b>E: Picture taken of the bin? (Y/N)</b>	<b>F: Percent full</b>
1	9	73	64	Y	63
2	9	87	78	Y	74

**Total net weight of other wastes (landfill)**  
160

**Notes regarding food, recycling, and other (landfill) wastes**

Other wastes were mostly food packaging from lunches that were not school lunches.

**Describe the process you used to establish clear guidelines for students to follow to sort their food waste.**

We sent out an email to all the teachers asking them to explain the procedures to their students. We also located the bins in the center of the school to attract the most students. and clearly marked signs so that they could see where to deposit their trash.

**Upload photos**

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**Would your team be interested in being part of the food waste panel at Nationals?**

No

## **Section 5: Critical Thinking**

**Based on your observations during the food waste audit, make three recommendations to your School Board to reduce food waste.**

One way to reduce trash in the school board would be offering smaller portions of food. A majority of the trash collected from the food waste bin was partially consumed meals. In particular, we discovered that an astonishing amount of fruits were thrown away whole and untouched. For every two pounds of food waste, we found at least three were partially eaten or unscathed. As elementary schoolers eat less, it would be beneficial to offer smaller portions in light of reducing food waste.

Another way to reduce food waste would be implementing compost bins. Currently, Meyerholz only offers recycling bins, trash cans, and special bins for bottles and cans. Implementing compost bins would be beneficial for saving money, resources, and improving soil fertility. A nearby middle school, Miller high school, already utilizes this process. They have their own garden for composting and growing vegetables, which can then be recycled in the cafeteria. Composting overall extends the life of landfills, reduces carbon dioxide emissions, and the total food waste output. Our team found that about 38 percent of the food waste consisted of organic compostable material. If all the organic material were composted, the total food waste output would be reduced drastically.

From our data, we also found that about eight percent of food waste originated from outside sources. Numerous articles of Panda Express, Chipotle, McDonald's, and other food articles were found in the trash. Not only does this create unnecessary waste, but a majority of this waste is also non-compostable plastics. Advising parents to make food from home or buy school lunches can help to reduce carbon dioxide emissions and also reduce the amount of non-compostable waste as a whole.

**Justify a school's role in teaching children about food waste and the impact food waste has on school budgets, the environment, and hunger in the community.**

It is easy to see why food waste is overlooked. According to statistics from the National Institute of Health, the US loses about 1.2 billion dollars from school lunch annually. A preponderance of this is due to the lack of awareness from students.

While adults are less inclined to change their food habits, students are young and adaptable. Thus, it is vital to educate kids on the importance of food awareness,

Organizations such as Free The Children have already increased food waste awareness, generating 70 kilograms of food for the homeless. They have also set up five food banks and have “made a lasting positive impact on schools, with over 90 percent of teachers stating that the scheme has increased enthusiasm for learning and improved behaviour among students” (Miers).

Schools should also initiate active efforts such as these likewise to Free The Children's food awareness drive. With elevated cognizance, food waste can be reduced drastically.

Schools are a place of learning. The cafeteria should be too!

**The US Environmental Protection Agency has set a goal to reduce food waste by 50% by the year 2030. Based upon your experience conducting this food waste audit, will the US meet this goal? Explain why or why not.**

Yes, at our current pace, we will be able to successfully reduce food waste by 50%. Based on our research, in the United States, food waste is currently extremely high. In addition, in our audit, we found extremely high amounts of food waste. Combatting this food waste would be relatively easy, with something as simple as composting. But, as we learned while studying Life Smarts, the most effective means of reducing waste is source reduction. If the United States can successfully reduce the source of food waste, buying food that is not necessary, then it can easily reduce food waste by 50%.

**Detail two or three findings or observations that surprised you. Describe how conducting this food waste audit has impacted you and your team, and the way you think about food in America.**

The amount of trash that was garnered in an elementary school was surprising. Given that Meyerholz Elementary was a relatively small school, if this trend were to be present for a larger population, the trash generated would be even more alarming. Upon further consideration, the conditions that Meyerholz Elementary clearly pointed towards high food waste. The lunches at Meyerholz were relatively small to begin with as well. With a small prepackaged lunch that included a side in a plastic bag and included a cardboard tray, there were sources of waste. With a lack of food waste programs to eliminate the food waste the students created, this too made food waste easier to pile up.

This changed the way our group viewed food waste because we didn't expect this magnitude to be correlated with a elementary school. Meyerholz Elementary, while it may not be the prime example since they didn't have many waste eliminating programs, this population was relatively didn't waste a lot of food. The California Lifesmarts team was aware that there were many places in the world that suffer from extreme food waste problems. If an average elementary school suffered from this much food waste, imagine what other communities could create. Because of the impact this had on our team, the Lynbrook Lifesmarts team conducted even more research on the food waste issue.

From our research, the team learned that many, even in America, suffered from the lack of food.

Furthermore, many farms and orchards that produce such as peaches and apples have to go through a rigorous process where they are graded from A - F depending on their shape and looks. A B grade peach would sell for significantly less than a grade A peach. Thus, many farmers just decide to let the B and lower grade food rot in their orchard. Furthermore, expiration dates also create problems for society. Many expiration dates are inconsistent and are often false. For example, milk is often given a random expiration date. Because many are unable to finish the foods by the expiration date, it causes this to thus waste the food. Food goes to waste and countless people in America fail to get enough food for their families. Thanks to the food waste audit at Meyerholz Elementary, we were able to be more immersed into this global issue.

**What is one obstacle your team faced during the audit and how did you work to resolve it? If the issue went unresolved, what steps would you take to reevaluate your approach?**

One obstacle our team faced was getting the school more involved in our audit. Given that we performed our food waste audit at an elementary school, the students were a lot less inclined to participate in audit. Furthermore, since the students didn't really care about the issue, they would be rebellious and often do the exact opposite of what we asked.

We approached this issue by first viewing the situation from an elementary student's' perspective. Clearly a food waste audit wasn't in their interest, and furthermore, since we were high school students, we understood that we were somewhat intimidating. Additionally, the prime focus on these

elementary students were to quickly go play, so we needed to come up with a process that allowed the students to quickly help us in an efficient manner. Thus we took additional steps in order to accommodate for the students' needs. We asked teachers to help out with the audit. We did this because we knew that students trusted their teachers and would be a lot more inclined to follow the leaders. Furthermore, to add an additional layer of incentive, we gave awards to students for behaving and for following our rules. To make the process efficient, the Lifesmarts team organized the trash cans in a pattern where it was obvious where which waste went where. Furthermore, the team quickly created student friendly logos that students could easily identify as recycling, food, and plastics waste. This allowed the process to be exponentially faster and made it much easier for both parties to participate.

Because we were able to create and effectively develop a solution in the small amount of time given, it expedited the process and allowed us to achieve success. The steps taken were not only effective, but it allowed both parties to reach a good ending. This project not only helped us learn about this global issue, but allowed us to develop crucial critical thinking skills that we will need in the future.

## **Bonus Question**

**Should all schools be required to do food waste audits on a regular basis? Why or why not?**

**Support your answer.**

When first hearing that we (the California Lifesmarts Team) needed to perform a food audit, the team wasn't as enthusiastic as they could have been. But after evaluating all the data that was collected in the food audit, not only has the team become more immersed into this global issue, we now advocate that all schools require to do food waste audits.

Looking at it from a logical perspective, making frequent food audits a requirement would make sense. Schools, no matter the grade level, encompass a large population base. Thousands of students follow their own schedules and face their own problems, so if a school was able to effectively raise food waste awareness and successfully eliminate food waste, it would create substantial effects for their community. But food auditing is not exciting. Just like we were at the beginning of this project, many people would be uninterested in participating in a food waste audit. Not only is it unattractive, but just thinking about it would make people want to sleep. Furthermore, with the lack of incentives, many would overlook the importance of this program.

Thus, in order for schools to be more inclined to participate in such a program, they need to learn about this global issue and its countless effects. For example, they need to learn about why food waste is bad in the first place. Not only is it cost effective, but it damages the environment as well. As food waste piles up in food waste plants, the food decomposes into Carbon Monoxide because oxygen is unable to reach the decomposing food. Carbon Monoxide is not only poisonous, but it also contributes as a greenhouse gas, thus contributing to global warming.

If students and teachers were to be more knowledgeable in this issue, they would be more inclined to participate in these routine food audits. Thanks to Lifesmarts, the California Lifesmarts team was able to be more aware of the surrounding issues that affect the world we live in.