Is a Plastic Straw Ban Possible at Ohio State?

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Abstract

For this project, I surveyed students at The Ohio State University on their opinions on single use plastics, specifically plastic straws. Data gathered included information about how students found out about the detrimental effects of straws, and if they would be open to various straw alternatives. Many students were open to straw alternatives, especially if they were to be a resource provided by Ohio State. I decided to research this topic here to improve our sustainability and have less waste production here at OSU. From my results, I believe that OSU is capable of making strides to reduce single use plastics, according to the interests of students that I surveyed.

Introduction

Single use plastics are a large source of the floating trash found in the ocean. Beaches are largely homes for plastic debris and is a threat to marine life populations (Costa). While straws are only a small part in the plastic found in the ocean, they seem to be an item that Americans could consume fewer of these single use plastics (Figgener). Some cities such as Seattle and San Francisco have already made movements to ban plastic straws and plastic non-reusable utensils (Figgener). Straws most commonly harm sea turtles, penguins, and fish. Plastics can also be found in the stomachs of large aquatic creatures. Christine Figgener, a marine life scientist, found a straw coming out of a turtle's nostril off of the coast of Costa Rica. She took a video of her and her partner pulling out the straw, which has become the face of the banning single use plastics movement.

Plastic debris can often be attributed to tourists in coastal areas, but there is no statistical difference between populated areas and unpopulated areas as far as the amount of debris gathered (Sul). The trash found in marine life habitats does not necessarily come from only coastal cities (Tibbetts). The plastics found on beaches and in coastal habitats come from either littering or trash that blows away or does not stay in dumps (Tibbetts).

I became interested in this topic after seeing pictures of turtles with straws in turtles' nostrils and turtles with plastic drink circles around their shells. I found my starting information on Twitter and my research stemmed from the media I had seen. As a student at Ohio State and an employee of Ohio State dining services, I believe that there are more sustainable practices the university could adopt to reduce our overall carbon footprint and total waste.

My hypothesis is that almost all students would know that plastic straws were a problem, but not many had done anything to reduce their consumption. I surveyed their preferences and their judgements on how important they felt reduction of single use plastics at Ohio State is to our community.

Methods

On November 1st, I surveyed Ohio State students at the Ohio Union on their opinions and knowledge of use of plastic straws. I gave the survey to students passing by on my iPad and laptop. I received 108 responses. The questions I asked were:

1. Are you aware that straws are harmful to wildlife populations in the ocean?
2. If yes, how did you learn that straws play a large part in floating ocean trash?
3. Would you be interested in Ohio State offering other options than plastic straws?
4. Please identify which alternative straw options you would be interested in.
5. If a drink were to cost between 20-50 cents more because of the slightly more expensive straw option, would you still purchase the drink?
6. If Ohio State gave all students reusable straws like they did with MyCips, would you use it?
7. How do you feel about a straw ban across the entire country?

Figure #1

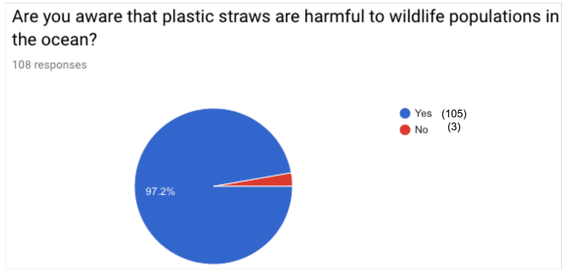
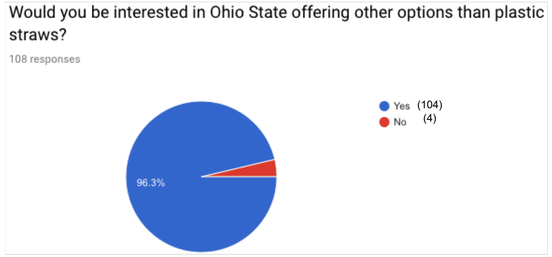


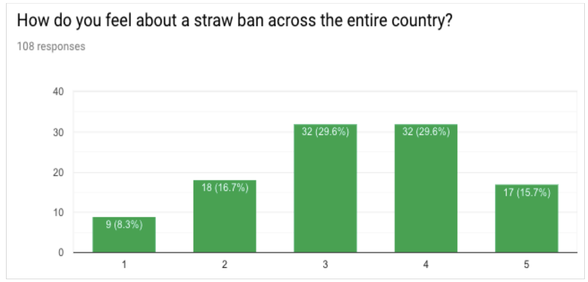
Figure #2



Results

In Figure 1, we see that 105 out of 108 (97.2%) people were previously aware that plastic straws are harmful to wildlife populations in the ocean. When asked how students learned of the negative effects of single use plastics, 64.8% of students answered they learned this information from some type of media. The second most popular answer was that students learned at school. When asked if they would be interested in Ohio State offering other options than plastic straws, 96.3% said yes. Students were then given a list of alternative straw options: metal straws, glass straws, compostable straws, bamboo straws, or sippy lids. The most commonly selected answer was compostable straws, at 57.4%. Some of the alternative straw options have a higher cost to restaurants and retailers. Students were asked if they would still purchase a drink if it cost between $.20-.50 more, would they still buy the drink. Over a third of students (36.1%) said no, the higher cost would deter them from purchasing a beverage. When students were presented with the option of Ohio State providing reusable straws in a similar way of the MyCup initiative, 58.3% responded yes, 25.9% responded maybe, and 15.7% responded no. The final question inquired whether students felt that a straw ban across the entire country was necessary. On average, students answered 3.3 out of 5 when ranking importance of a straw ban. Responses of a 3 and 4 out of 5 both received 32 votes.

Figure #3



Conclusions

Based on the rankings of importance of straw reduction measures, the data shows that the majority of students believe some type of straw reduction measures should be taken, given that the average answer is a 3.3 out of 5. Based on the results of my survey, I conclude that most students are somewhat environmentally aware of the harm single use plastics can cause. This makes me optimistic for the future of reducing plastic use at Ohio State. I hypothesized that Twitter was a very common source of receiving information and gaining knowledge about straws based on the News feature and the universal commonness of the use of the social media app. I was correct in my hypothesis Twitter was a very common source of information. My hypothesis of believing that most students would be interested in knowing more options and being provided with alternative straw options was also correct. The question of whether students would still buy drinks even if the drink cost more had interesting results. I have concluded that the motivating factor for wanting a plastic straw depends on the easy access and price of the drink without a straw.

When giving this survey again, I would like to sample a much larger group of Ohio State students. Another add-in I would like to add is surveying students from a larger variant of majors to track if any trends occur in responses based on majors of students. I would also like to find the price tipping point where students felt was too high for a more sustainable straw option by giving prices in increments of $.10.

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