Introduction
In an effort to help make Villanova a greener campus, our research group is pursuing a change from Styrofoam to reusable takeout containers. Currently, the University mainly uses Styrofoam containers, which are neither recyclable or reusable, creating a significant amount of waste and a significant annual cost. The University is striving to become a sustainable campus, but dining services has taken a step backwards in recent years. Villanova abandoned using a compostable container program due to high costs and a lack of student involvement. In its place, the University reverted to Styrofoam containers. It is our hypothesis that reusable containers would save the university costs.

Methods
• Obtained records from Dining Services of the University’s Styrofoam container purchases
• Used two days of receipt logs from Café Nova and the Donahue Market to estimate how many containers are used in an average week
• Sent out an eight-question survey over Facebook and email about students’ take-out habits
• One hundred results from the survey were compared against another research project about the previous compostable take-out container program
• Researched a variety of reusable containers to find an alternative
• Compared cost of the alternative containers to current costs

Results
• 51% of students buy takeout at least 3 times a week (Figure 1)
• Cost per semester $5,826 for 75,800 9’x9’x3” Styrofoam containers
• 459 orders of late night over 2 days
• 1,964 orders from Café Nova over two days

• Most frequented takeout locations: Café Nova (47%) Donahue Market (35%) (Figure 2)
• 82% believe a reusable container program would be feasible.
• 48% said they would be less likely to order takeout if they had to return the container

• 89% of students eat their takeout where they order it at least some of the time (Figure 3)
• 85% of students were unaware of the previous compostable container program
• Only 5% knew it was discontinued because of high costs.

Discussion
• Fall of 2015 Villanova University spent over $5,800 on 75,800 large Styrofoam containers – totalling $11,600 per year
• Survey shows that students purchase the most take-out from Café Nova and Donahue Market
• Over two days there are 1,964 take-out purchases at Café Nova and 459 late night purchases from Donahue Market
• Ozzi system is an easy alternative to Styrofoam containers on campus
• Villanova could run a trial of the Ozzi system by renting one for the Donahue Market because the containers would not likely travel off of South Campus
• The reusable containers would likely remain in Donahue because 89% of students reported that they eat where they purchased their take-out at least some of the time (Figure 3)

Scenario 1: The Donahue Market
Estimates of Total cost after 6 years: Buying Styrofoam containers annually VS buying 1 Ozzi system and 1,000 reusable containers

Scenario 2: Entire Campus
Estimates of Total Cost after 5 years: Buying Styrofoam containers annually vs buying 4 Ozzi systems and 5,000 reusable containers

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https://www.researchgate.net/publication/272261063_Café_Nova_Spât_Late_Night_St._Mary’s_Late_Night_Bel_Aire

Figure 1: Number of Take-out purchases
Figure 2: Frequency of the responses given by Villanova students to the question, “where do you purchase the most take-out on campus?”
Figure 3: Frequency of responses from Villanova students when they where asked how often they eat at the location in which they purchased their take-out food.

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