CLEAN IT UP!

TRASH ISSUES AT ASU

ASU 121

The overflow of trash has been a problem for dorm students at ASU. An increased time spent in dorms has resulted in more trash being collected by students in their respective dorm rooms. To combat this, ASU should implement a policy that would allow for students to dispense of their trash quickly and efficiently. One such method would be a trash chute. By building a trash chute on each dorm floor, students would be able to discard this trash without having to walk over to an already overfilled garbage bin. When coming into contact with the overfilled garbage, students are exposed to harmful bacteria from the sitting trash. This sitting trash provides an array of problems including rodents, bacteria, and garbage flying away. By enabling and implementing strong policy, the living standard for dorm students can become cleaner and more efficient.

Due to the Covid-19 pandemic, students are spending more time in their dorm rooms. Classes have transitioned to online learning, and restrictions have kept students indoors. This, on top of an already large trash problem at ASU, has resulted in a massive overflow of trash in the main garbage bins. The sitting trash can bring bacteria and rodents in contact with students. The harmful effects that come from letting the garbage collect over time are well documented. Elaine Nolasco, a researcher at the University of Brasília, completed a study on the University of Faculdade to determine the amount of waste created on campus. Elaine explains in her academic journal the complications that arise from different types of trash as they spread bacteria amongst each other. Nolasco states, “The results showed that the campus generates 148 kg of waste/day, whereas the per capita generation is 92 g/day. The production of hazardous waste is related to campus laboratories which manage it under a specific program. The campus restaurant is the place that generates the most waste, of which organic waste is the most representative. When categorizing the waste generated on campus, the authors found that the majority are recyclables

at 67% of the total. This category includes material composed of cardboard, paper and plastic, all able to be recycled in the Federal District (Nolasco).” This quote highlights the excessive amounts of waste generated, as well as the type of waste generated. Nolasco points out that much of the waste is in combination between different programs at the university.

The Nolasco study highlights terms like “Solid waste” and how such categories are created to avoid the added costs of separate garbage bins. Oftentimes these garbage bins needed different types of collection trucks which greatly added to the costs. Universities and other large campuses are able to categorize most of their waste as “Solid waste” rather than hold different collection sites. Many campuses refrain from having garbage collection routes reach more collection sites due to high running costs. Evan Bollier, a professor at Eckerd College, explains the ongoing process of waste mitigation. “Many universities rely mostly on recycling as a way to deal with sustainable waste management; however, source reduction is also important. An end-of-year collection may not be feasible or recommended for every college or university campus. But analyzing campus solid waste management and finding appropriate solutions is a key element in our sustainable future. (Bollier).” This quote shows the clear incentive for Universities and other large campuses to implement the necessary waste and recycling management standards for staff and students. Bollier highlights the “Trash to Treasure Program” as the main proponent for Eckerd College reaching their recycling and waste reduction goals. Bollier states, “ The sale diverted trash from the landfill and generated funding for future environmental initiatives at the college. Over the last six years, Eckerd diverted an average of 9.3 tons of waste from landfills per year and generated an average of $14,250 in annual revenue. All of the revenue goes to the college’s Office of Sustainability to support environmental initiatives and to continue to provide jobs for students. The program provides students with cheaper

alternatives to brand-new dorm supplies as well as internships for some students every summer. (Bollier).” The clear benefits as stated by Professor Bollier demonstrates a clear need for positive change, as well as the incentive for strong policy to be enacted at ASU.

Programs across America have tested forms of waste management solutions. Universities and other sizable campuses have tried methods form third-party agencies which can immensely help with making campus a cleaner, safer, more efficient environment. Programs like the “Trash to Treasure” program have helped in mitigating waste on campus, as well as saving time for students and faculty. The “Trash to Treasure” program and others have mainly become more feasible due to the work of the Post-Landfill Action Network. Evan Boller, illustrates in his article the benefits that came from allowing third-party programs to control waste mitigation on college campuses. Boller writes, “Begun in academic year 2013-2014, this end-of-year waste mitigation program is operated by the Office of Sustainability where the sustainability director works with student volunteers and interns. The program has grown and expanded every year since, employing up to six student interns, and peaking at approximately 12 tons of trash diverted from the landfill in 2018 (Boller).” This quote serves as evidence that sustainability and waste diversion programs have been successful in the past. Included in his article, is a study performed at Eckerd College by Professor Boller. The study consisted of a two-scale system similar to a trash chute which allowed for trash collection to be “clear, clean and precise (Boller).” From its inception, this program has been replicated in many campuses, as well as serving as a model program since 2014. Boller claims, “The Eckerd process was planned as a two-sale system and has continued using this model since 2014.” By replicating a similar waste management program at ASU, campus life can become safer and more efficient for students and faculty.

A clean, smart waste management system is a desirable feat for colleges and universities to achieve. Being some of the largest producers of solid waste, these institutions are obligated to provide new innovative solutions to limit their waste. As campuses strive to become more "smart" and technologically advanced, their methods of trash disposal must also improve. Currently, students empty out their dorm room trash cans by walking their own trash all the way outside their dorm building to finally throw their trash onto an already overflowing garbage bin. By doing this, every student in the dorm will have to come into contact with the same garbage bin. This poses an obvious health issue due to the ongoing pandemic as well as the bacteria-infested trash spreading germs and disease. Aniqa Bano, from the Department of Information Technology, The University of Haripur, states in her peer-reviewed article the harmful effects of keeping a traditional trash management system during times of significant population increase and pushes for modernization across the board. Bano states, "To keep the environment green and clean, monitoring and disposing of waste is very important these days. Improper disposal and poor monitoring of collected waste and waste bins can cause serious damage to human lives. This waste can spread various life-threatening diseases that in turn harm the lives of a whole city and country as well (Bano)." This shows a direct reason as to why the monitoring and disposing of the waste is important, as well as why a traditional waste management system can cause harm to the environment as well as students. By proving the harmful effects of sitting trash, it is evident that action must be taken to improve the living conditions of students by modernizing the waste management system at Arizona State University.

As institutions of higher education, colleges and universities are the main proponents of new ideas, innovation, and research. To keep up with the growing population numbers as well as

maintain a model environment, universities like ASU must implement strategies to manage solid waste on campus and in dorms. Campus planners in universities across the United States are constantly looking for new solutions to apply to their respective campuses. Waste management policies and further research on garbage has been greatly encouraged by many universities. Lauren Wisbrock, a professor in the Biology department at Loyola University Chicago, conducted a study on universities across the world to find out which ones lead the future research in finding and putting solutions into practice. Wisbrock concludes, "The apparent similarity between trash signatures at the University of Idaho and the University of Louisville illustrates the pressing need for future research on campus trash: not solely for its pedagogical applications but also for the information it can yield on the effectiveness of waste management policies when they are observed in practice." Wisbrock shows how campus planners at each university takes into account the change in human behavior to predict what programs the university should enact and provide for their students. Many of these programs involved concrete waste management systems that revolved around the students being able to get rid of their trash collected in dorms, rather than trash that they need to throw away while walking on campus. This leads to systems that can provide students with cleaning their dorm room trash efficiently. A trash chute system such as the one proposed will give students the opportunity to discard their trash without having to come into contact with potentially harmful bacteria.

In tall residential structures such as the residence halls on campus, waste disposal can be a test for occupants. Yet, with trash chutes and trash valet as alternatives, the trash problem can be consummated. A waste chute or trash chute makes an assortment of trash and junk disposal speedy and bother free. It comprises a vertical cylinder that stores all the trash in a solitary area and numerous passage focuses to permit the removal of trash at different focuses. It is typically

introduced in residential structures and ranges various floors so that individuals at various levels can dispose of their waste. Trash chutes are convenient, clean and cost effective. Trash chutes have trash passage focuses at numerous levels. In this way, it is helpful for occupants living on various levels to drop trash according to their comfort. Trash chutes show up clean since they don't have trash bins put outside. Additionally, garbage chutes are typically introduced in independent, committed spaces. This implies cleaner and better environmental factors. The expense of introducing a garbage chute is low since it is done at the hour of development. Furthermore, if existing support representatives are prepared to oversee waste chutes, it can reduce down the expense much further.

Another viable option for the trash problem is a trash valet program. Trash valet is a service that picks up your trash for you at your door. This service is usually offered by the landlords or supervisors of the residence. In our case, it would be offered as one of the amenities that comes with living in the dorms. It expects inhabitants to put the garbage bins given to them outside their dorms at a planned time each day. Later a representative gathers the junk and disposes of it. Trash valet programs are convenient, clean, environmentally conscious and a value addition. Residents do not need to leave their dorms when getting rid of trash. All they have to do is place the garbage outside of their door. Since the trash will be cleared promptly, it will not heap up and smell in units. Since the trash is thrown away utilizing hands, it is simpler to recycle. With the trash valet as an extra help like valet parking for example, the university can use this as a selling point to get more students into the dorms. Due to the chute allowing for students to throw away trash more often, the trash is inherently cleaner since bacteria has not had enough time to build. This will result in less bacteria spread between trash and students, making the campus safer for students.

The overflow of trash has been a problem at ASU for a long time now. Not only in the dorms, but around campus. The majority of ASU students have claimed that they think the overflow of trash is a problem on campus. Not only is it a problem, it is a major problem.

As stated above, there are many bad effects that overflowing trash can have on not only the environment, but the health of ASU students. These effects are how litter damages the environment and how sitting trash can affect it even more negatively. It can also lead to a build up of harmful bacteria that could eventually have a bad effect on the health of students. Another problem is the rodents, and other animals and insects that can get into the trash and spread diseases. All of these have more of an effect personally on students, and staff, than we think.

That is why we want to implement the trash chute, and figure out a way of ASU turning into more of a low waste campus. By making source reduction, a more efficient way for students to use less packaging or alternatives, to in change, make less trash. If we do this, ASU will be a more clean, environmentally friendly campus. In turn that will not only be beneficial to students and faculty personally, but it will also help the environment.

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