Examination of Paper Cup Usage and the Future of the Reusable Mug Program

Introduction

Over the past several years, Williams Dining Services has made the conscious effort to improve the efficiency of their dining halls and taken steps to be a more sustainable institution. For the 2010-2011 school year, dining services discontinued two dining halls, Dodd and Greylock, in order to decrease cost and waste. The three remaining dining hall, Whitmans’, Driscoll, and Mission, all participate in a composting program which allows students to compost excess food, used napkins, and paper cups as opposed to adding them to the trash collection. Dining services also currently has three sustainability initiatives in place that offer reusable bags, containers, and mugs to all students. The goal of these programs is to cut down excess waste created by the former to-go options and to promote an atmosphere of sustainable behavior throughout the campus. In an effort to increase convenience, these options are either free, or require a small deposit that ties directly to the students’ term bill in order to streamline the process and prevent any reluctance for use associated with a transactional cost. In theory, these options should drastically reduce the amount of waste produced by dining services; however, the reusable mug program in particular is still in its infancy, and only offered in Driscoll dining hall, and requires more planning and development until it can be an effective, sustainable measure throughout the campus.

Observations and Survey Data
After frequenting the dining halls for three years, one trend in particular stood out. Patrons sitting down for a meal will more than often use the paper cups for hot drinks as opposed to the plastic mugs. Paper cups are solely intended for taking a beverage to-go while the plastic mugs can be washed and reused, with no waste generated. This year Driscoll dining hall made the decision to be entirely paperless, removing all paper cups, and replaced them with a reusable mug program. To further examine and validate this observation, I conducted a survey of a portion of the student body. I hoped to explore what options people choose for their hot beverages, the number of students participating in both the reusable container and mug programs offered in Paresky and Driscoll respectively, and if students supported the removal of paper cups in Paresky or the campus as a whole. Of 100 responses, an overwhelming 85 students said that when eating at the dining halls they would use paper cups for hot beverages, 64 students for to-go food, and 41 for ice cream. Additionally, only 31 answered that they have or plan to use the reusable mug program in Driscoll, and similarly, 32 students said that they supported the complete removal of paper cups in all dining halls. The last section of the survey allowed for comments on the reusable cup program which received a wide range of responses varying from, “KEEP THE CUPS” to “It’s a great program! Please keep it up and honestly there is only one right opinion on this issue and those who dissent aren’t really thinking about the consequences.”

The results from the survey support my belief that the vast majority of students opt for paper cups when eating at the dining halls. In addition, the data also suggests that paper cups usages has grown past hot drinks and now are used as to-go containers for cereal, ice cream, and other food items. Also, the relatively low number of users of the
sustainable cup program and general supporters of the removal of paper cups leads me an unfortunate combination of two conclusions: there are outstanding problems with the reusable mug program, and Williams students have formed an unnecessary infatuation with paper cups.

**Solutions: Composting and Reduction Campaign**

In the 2012-2013 school year, Williams College purchased 408,000 paper cups that totals to $29,602.72, not to mention the waste generated. Williams even spends extra money to purchase the more expensive compostable cups in an effort to be more sustainable. Other than a small band around the bottom of the cup, there are no indications that the cups are compostable which leads to the majority of cups to be thrown away in the trash instead of the proper composting units. The Sustainability Office needs to focus some of their efforts on effective measures to reduce the use of paper cups and increase the amount placed in the proper disposal. Williams should launch a campaign to raise awareness about paper cup use. They can place signs near the cups in the dining halls and additional postings by the composting areas. Like with the napkins, this will remind students as they are clearing their plates, to put cups into the composting bins with their food instead of throwing them in the trash. From our discussion of environmental psychology, we learned that displays featuring percentages (over 75% being the most effective threshold) have the strongest effect on a reader’s behavior. Therefore an effective message would read as, “Sustainability is an important aspect of life at Williams. Over 78% of students compost paper cups, please help the environment and continue this trend!” Additionally, Williams can add composting receptacles to other areas on campus. In the libraries and other academic buildings, there
are usually three separate bins: one for trash, paper, and recycling. The addition of a composting bin would not only increase the amount of paper cups disposed of properly, but also would increase the amount of compost generated as students would now be able to compost food at a location away from the dining halls.

While this would improve the situation, the only sustainable solution would be for wide-scale reduction of paper cup usage and hopefully a complete removal. Williams should, again, begin with a posting (similar to the one mentioned above) around the cup stations encouraging students to reduce their cup usage by using the plastic cups or bringing their own reusable mugs. Currently in both Mission dining hall and Whitmans’, the paper cups are the nearest container to the coffee and tea stations making them the most convenient options. Instead, they should be replaced by the plastic mugs and moved to a much less convenient location, forcing students to seek them out when they truly need them, as opposed to making them the immediate first choice. On a more radical approach, Dining Services could even have paper cups behind the counter, in the workspaces of the kitchen. This would require students to ask for cups making them harder to obtain and saved for actually to-go situations. Likewise, they may consider restricting the times for which paper cups are available. For example, paper cups could be used during breakfast, when students often take a hot beverage on the way to class, and at dinner, when students take a coffee or tea to the library for studying.

Consequently, any limitations placed on paper cups will also reduce the amount used improperly for items such as cereal and ice cream. In the end, all improvements have the ultimate goal of complete removal of paper cups from all dining halls. This is by no means an easy task. Williams must work to continually engrain the notion of a
sustainable lifestyle into its students. The current reusable mug program in Driscoll is a step in the right direction; however there are several areas to improve upon in order to break the strong hold that paper cups have taken over the campus.

**Reusable Mug Program**

In 2013, Driscoll dining hall made the decision to go entirely paperless and launched their reusable mug program. They purchased 500 reusable mugs for $1,500 ($3 per mug), in hopes that students would carry these mugs around campus instead of using paper cups. For a $2 fee that goes to directly to the term bill, students can rent these mugs and later deposit them for cleaning at Driscoll or either of the libraries. The first of its kind, this program inherently eliminates all paper cup usage in Driscoll; however, it has still been met with problems and complaints in regards to wider use throughout campus. First, the design of the cups is problematic. The mug has a large plastic handle on the side that prevents it from fitting into the side pocket on most backpacks. In addition, the tops are not firmly attached and could possible spill if left to move freely inside a bag. The cups generally feel flimsy and fairly cheap—in my personal experience, I have already cracked my mug and my top always feels loose and unstable. One student commenting on the quality writing, “I use them like I do with paper cups so that when I’m somewhere not near a proper disposal system, I throw it away.” The current method of checking cups out supposedly ties the cups to each student’s term bill. Unfortunately, Driscoll has reported that they are struggling to keep track of the cups, and many are not being returned. Similarly, many have complained about the lack of convenient return locations or forgetting that they need to bring their mug every trip to Driscoll especially after an athletic practice when they would not necessarily travel with
their mugs. To examine ways of improving the reusable mug program, let’s first look at the methods employed by other institutions—for example, Western Michigan University.

**Western Michigan Example**

In 2001 at Western Michigan University, students for an environmental science class proposed the idea of beginning an EcoMug program on their campus. Looking for a way to reduce the $32,000 per year spent on foam and paper cups, WMU approved the proposal and began selling 15 oz dual wall, recyclable, stainless steel mugs at the student store and other dining locations. For the first several years, the program was ineffective because a lack of campaigning and inconvenient structuring. As a result in 2009, the WMU administration passed a resolution that committed over $35,000 to the program. The program distributed an EcoMug to every incoming first year student, including transfers. The hope was to build a foundation with first year students participating in sustainable behavior that would reverberate throughout the entire campus. Each mug is tied to the students’ ID card and can be washed free of charge at any dining location. In addition, WMU has guaranteed a lifetime warranty on the mugs so that, for any reason, if they cups are damaged, the university will replace them for free to prevent them from being disposed of improperly and to continue to encourage their use. In the greater community of WMU all local cafes and many chain businesses accept the EcoMugs and have added the benefit of a reduced price for beverages while using them.

The future is still unclear about the long-term success for the EcoMug program at Western Michigan. However, in the years of its implementation, the university has been able to cut down on paper and foam cup costs and noticed a decrease in their generated waste especially since the 2009 initiative. While exact figures are yet to be determined,
Matthew Hollander from the Office of Sustainability writes in a report submitted to aashe.org,

One thing we’ve learned is that people still love free stuff, and free stuff…doesn’t necessarily have to be bad from a sustainability perspective. Another is that sometimes you really do have to shoot first and ask questions later. We can’t yet say for sure the extent to which our free mugs are reducing WMU’s solid waste, carbon footprint, and other sustainability measurements…. But, while we are figuring this out…at least we know that nearly 5,000 students a year are being encourage and stimulated to think—and act—a little bit more deeply about sustainability.

Hollander makes strong points that we should incorporate into our process of approaching sustainability at Williams. The first of which involves the uncertainty around these programs and how sometimes we must implement them before fully knowing the outcome. Simply put, Williams currently purchase over 400,000 paper cups per year. Cost aside, any program that they implement will reduce this number no matter the varying degrees of success. For the upcoming 2013-2014 school year, dining services plans to end the use of paper cups entirely in favor of a campus wide reusable mug program. In terms of cost difference, WMU was able to give away over 6000 EcoMugs to first-year students and stock the student store for roughly $35,000. The entire student body of Williams is close to one-third that of WMU first year class which translates to (not including a reduced scaling of extra mugs purchased) $11,666.67, or is nearly half of the allotted budget for paper cups alone. However, this decision, while slashing costs and waste, only affects how students act and not how what they believe or choose to do. A focused campaign in which Williams aims to incorporate strong, sustainable behavior as early as possible will be most effective for the long run at Williams and for the future of its graduates.
Suggestions for Future Plans

While this project will immediately succeed in eliminating our reliance on paper cups which will eliminate all associated costs and wastes, Williams needs to ensure that the program is implemented effectively and does not drastically alter the daily lifestyles on campus. In order to do so, the project must be made simple and convenient for students. According to my survey, a complete switch from paper cups would not be well received by the student body. Williams’ students thrive on structure and routine and this is currently met with the simplicity of the paper cups. Like the WMU program, Williams should launch their program by handing out mugs to all incoming first year students and make free mugs available to all upperclassmen if they choose. In doing so, they will begin with a solid foundation of first years that are accustomed to using mugs in everyday life. Additionally, a general reduction of paper cups will also sway older students to begin to accept the turnover. By adding to the mug community every year with the first-year class, Williams will hopefully see an ultimate switch to reusable mugs instead of paper cups. One advantage that Williams has over WMU is that it has a much smaller student body with many less moving parts, which means it must convince far fewer students to make the sustainable choice.

As for the mug design, Williams should copy the exact mugs used by WMU. The design of the current mugs has been one of the biggest complaints: making the mugs more transportable and higher quality will increase continually usage and a campus-wide program would mean that all dining locations would accept mugs for cleaning. One addition that could be made to the WMU plan would be to purchase extra mugs to be on hand in the dining halls, so students not officially signed up for the program could join
immediately (with the simple swipe of their card) and that there would be faster replacements offered for mugs needing cleaning.

Two venues that are large contributor to paper cup usage are EcoCafé and Goodrich Café—two breakfast locations that use hundreds of paper cups a day by serving coffee, hot chocolate, and teas. The unique part about these two cafes is that they operate on an “a la carte” style in which students receive an equivalent dollar value for their swipe with which to purchase items from the menu. This adds the unique option of providing benefits for reusable mug usage. These cafes can add benefits in the form of discounted prices or free size upgrades (Goodrich has a similar program already in place) for the usage of a reusable mug. Likewise, Williams may even expand this to dining halls in the form of a point system. Once students reach a certain point level they could receive gifts like an extra meal or a dollar value removed from their term bill. On the other hand, Williams can impose penalties once the program has taken full effect such as charging for paper cups. These benefits would over time expand to the greater Williams community and incorporate commercial locations such as Tunnel City and Dunkin’ Donuts. In 2010 the University of Florida began a similar incentive in which they offered a 25 cent discount when students brought their own coffee mugs which led to saving over 23,000 paper cups over the course of the year. This shows that a little incentive have a great impact and knowing the frequency of hot beverage consumption, each student removed from the paper cup market will have vast repercussions.

Conclusion

As a leading institution of higher education, Williams should aim to not only encourage sustainable behavior for its students while at Williams, but also strive to
promote sustainable attitudes that will carry over even after graduation and become fixtures in the lives of its graduates. Given the current healthy state of the Williams endowment, they are by no means gripping to cut cost in any way. While yes, paper cups have become an issue in terms of waste production and increased carbon emissions; the issue has become largely symbolic. Most Williams students have become too comfortable with the resources we have. Not to say that we have we have grown to thrive in lavish lifestyles, but rather an excess use of resources has become a daily routine. This places further emphasis on the importance of the Zilkha Center and the Sustainability Office in the efforts to change Williams into a more sustainable environment. Students do not take paper cups instead of mugs or use incandescent light bulbs instead of fluorescent ones because they hate the environment—they do so because it is convenient and easy. The Sustainability Office must continue to implement programs and initiatives that remove and shift this convenience onto green, sustainable products. The reality is, that no amount of research, surveying, or behavioral psychology will tell us exactly how the Williams community will react to these programs. Despite the criticisms, Dining Services decision to remove all paper cups next year is a good thing. Regardless of the complaints, they are still removing over 400,000 cups from the community and making a positive impact. While the plan will require sacrifices and adjustments, it will ultimately force students to question their daily behavior and reexamine their practices towards a more sustainable lifestyle.
References


Acknowledgements

Special thanks to Diane Noyes-Tovani and Chris Abaysinghe from dining services for providing the necessary data involving paper cups that made this project possible. Also to Professor David Dethier and Stephanie Boyd for their guidance and direction throughout the process.