
Waste Management in Campus Dining---Reformatting “RecycleMania” at Central Michigan University

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Abstract

Effective waste management is crucial for organizations to implement sustainability practices. In this paper, we focus on reviewing and improving the sustainability practices (more specifically those in waste management) of Central Michigan University (CMU) Campus Dining, particularly the participation in the RecycleMania Tournament where schools across the United States and Canada compete on waste minimization. Using the data collected from CMU and other universities, we look at ways in which improvements can be made to better encourage universities like CMU to improve their waste management plans and implement new practices for diverting wastes from landfills. At the end of the essay, possible challenges and ways of overcoming these challenges are also discussed.

Key words: Waste management; RecycleMania Tournament; Sustainability; Michigan



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INTRODUCTION

Waste management poses an enormous challenge to organizations, cities, and countries as the solid waste generation has soared in the past few decades. Hazard waste management, lab waste management and municipal solid waste management have drawn much attention to both researchers and the practitioners. Among the municipal solid waste management, food waste management is still at an early development stage. There is a large room for improvement in organizations. Our paper studies on waste management in campus dining at CMU by reviewing the ways of waste management at CMU and other universities' campus dining, and providing measures that could be taken to boost universities' participation in the food waste management. We conclude the paper with potential challenges and possible solutions.

CMU Waste Management within Campus Dining

Campus Dining at Central Michigan University (CMU) is an on-campus service comprised of four different residential dining halls (Fresh Food Company, Merrill Residential Restaurant, Robinson Residential Restaurant, and RFOC - Real Food on Campus) as well as several other locations to purchase food and beverages conveniently placed around CMU's campus (Burrito Bowl, C3 Express, Down Under Food Court, Einstein Bros Bagels, HP Café, Java City Coffee House, The Market, Northside Market, P.O.D. Market, P.O.D. Express, Starbucks, Tidbits, and Trackside). Occupying such a large portion of campus and serving on-campus students, off-campus students, and faculty alike, it was noticed long ago that a sustainability plan was needed to be devised and implemented in order to lessen the impact that their services had, and would continue to have, as more and more students and faculty members continued to utilize each of their locations.

CMU's Campus Dining uses Green Thread as their sustainability platform. Through this platform, Campus Dining states that, "We are passionately focused on reducing the environmental impact within our operations. We continuously improve our own practices, while offering expertise and practical solutions" (Central Michigan University Campus Dining, 2017). As part of this Green Thread platform, Campus Dining focuses on several areas including: sustainable foods, where they purchase local, organic, and sustainably certified foods; responsible procurement, where environmentally sensitive purchasing decisions are made; energy and water conservation through reduction, technical solutions, and renewable energy; education and awareness to customers; and also waste management, which is the area in which this project has been focused on (Central Michigan University Campus Dining, 2017). While many

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sustainability efforts have been made in all of these areas by Campus Dining, we will be taking a closer look at advances that have been made in the area of waste management as well as ways in which the company can make further improvements in this sector.

With over 18,000 students and faculty members on Central Michigan University's campus, Campus Dining is able to reach a large percentage of this population which can mean vast amounts of waste if everything is left unchecked. To combat the amount of wastes produced by their services, the company dedicated an entire section of its sustainability plan to waste management.

On the Campus Dish website, which CMU's Campus Dining utilizes to relay all information about its services including locations, menus, hours of operations, etc. (2017), the company goes into great detail about its entire sustainability plan with examples for each area that it works on. In the "Waste Management" section of this page, we can see various efforts that are being made in order to limit the amount of waste leaving its facilities and going into landfills. As part of the waste management plan, one of the things mentioned is the implementation of meal plans and FLEX (a form of electronic payment) to reduce paper waste through ecommerce (Central Michigan University Campus Dining, 2017). The waste management plan also includes much to do with recycling. Some of its locations where coffee is served, there are bins in which customers can recycle coffee jackets that are placed around the cups to keep from burning their hands. Campus Dining also makes efforts to recycle cardboard, office paper, register receipts, batteries, light bulbs, Styrofoam, shrink wrap, toners, and printer cartridges while also placing recycling bins at all of their locations for customers to recycle newspaper, magazines, glass, plastic, and aluminum (Central Michigan University Campus Dining, 2017).

Another major component of Campus Dining's waste management plan is the reduction and elimination of food wastes. These efforts have been going on for quite some time, and new ways of dealing with food waste have been implemented in the past years. In 2010, the company started composting the wastes that it could from one dining hall, and after much success in the amount of trash they were keeping out of landfills, they expanded the practice to all its other locations in 2012 (Central Michigan University Campus Dining, 2017). There are now also zero waste programs in all four of the dining halls on campus in which efforts are made eliminate any sort of waste going to landfills. Campus Dining also competes in a nationwide competition known as RecycleMania which is a competition to see which schools across the United States and Canada are able to recycle the most, and produce the least amount of waste being sent to landfills (Central Michigan University Campus Dining, 2017).

Waste Management at Other Universities

Central Michigan University's Campus Dining's sustainability efforts in the realm of waste management can be compared to those of dining facilities at other universities in Michigan. For example, we will look at an equally competitive Michigan State University (MSU), who seems to be doing similar projects, as well as some things different, and also Grand Valley State University (GVSU), whose sustainability plan for waste management is not as elaborate as that of CMU. By looking at where dining facilities at other university are excelling, and also where they are lacking, we can conclude which methods and practices may work for CMU's Campus Dining, and also which practices should be avoided.

Michigan State University's Culinary Services has a comparable waste management plan to that of CMU's Campus Dining. While many of their practices may not be the same, they share the same goal of reducing wastes and keeping garbage out of our landfills that do not need to be there. In the section of MSU's Culinary Services website (2014), they state that they support "assist[ing] with closing the food loop and be[ing] cognizant of how food waste ties into energy," "support[ing] efforts to reduce food waste, reduce food cost, review portion control, increase education and other tactics," "review[ing] cost impacts of controlling food waste," and "implement[ing] and monitor[ing] trayless dining at The Vista at Shaw, Heritage Commons at Landon and The Edge at Akers; encourage[ing] trayless in other venues" (Michigan State University Culinary Services, 2014).

The waste management plan for MSU Culinary Services also has an educational component known as "Clean Plates at State" with the goal of reducing the amount of food waste produced by each customer (Michigan State University Culinary Services, 2014). One major part of this educational component is the

use of scales to weigh each customer's plate in order for them to see just how much food they are taking. This number can then be compared to how much food remains on their plate once they have finished. This comparison is used to teach customers about portion sizes, and to take smaller amounts of food at the beginning, and only taking more once they have finished what is on their plate and know that they are hungry enough to go take some more (Michigan State University Culinary Services, 2014).

MSU Culinary Services implement other strategies as well as part of their waste management plan. Some of these strategies are educational, such as is the "Clean Plates at State," which include posting tips for reducing food waste, such as the ones that can be found on their website. These tips include: "Having regularly scheduled meals can reduce unnecessary eating and food waste; Check the menu online before you arrive; Explore the menu options before you fill your plate; Ask for a sample; If you are not sure, ask for the ingredients; Take smaller portions and go back for seconds; After each meal, ask yourself why you have leftover food and consider making different decisions next time; Challenge yourself to trayless at least once per week in the dining halls that aren't trayless already" (Michigan State University Culinary Services, 2014). By following all of these tips, customers learn about controlling their portion sizes, which effectively helps them to eat healthier and also waste less food, creating less food waste for the facility. Another method used by Culinary Services mentioned in the tips for reducing food waste is trayless dining. With this method used at various locations on MSU's campus, customers take less food from the start due to the lack of a tray to pile more food onto. According to the website, "The Vista at Shaw, Heritage Commons at Landon and The Edge at Akers are designed to be trayless dining halls. Going trayless helps reduce the amount of food that is taken. It also supports energy and water conservation" (Michigan State University Culinary Services, 2014).

One of the last major components of MSU Culinary Services waste management plan is waste diversion. This is where the wastes that do get produced are used elsewhere rather than them being sent to a landfill. Included on the "Waste Diversion" page of their website (2014), Culinary Services displays several ways in which its pre and post-consumer wastes are used. Some pre and post-consumer wastes are sent to the campus's anaerobic digester, which converts food and farm wastes to energy. Pre-consumer wastes such as clippings and such that are left over from preparing meals are used for compost, which is used in the Student Organic Farm and Bailey GREENHOUSE and Urban Farm. One other method of waste diversion is donating foods that can still be consumed, but can no longer be served, to the Greater Lansing Food Bank and MSU Student Food Bank (Michigan State University Culinary Services, 2014).

Moving on to another university in Michigan, we will take a look at Grand Valley State University Campus Dining. While this company is making sustainability efforts in the realm of waste management, their plan is not as elaborate as those of MSU Culinary Services and CMU Campus Dining. GVSU Campus Dining features many of the same practices to reduce food wastes as the other two universities, as well as a few practices that are not mentioned in the waste management plans of MSU Culinary Services and CMU Campus Dining.

Some of the practices done by GVSU Campus Dining seem to be pretty universal when looking at any other company that has a plan for waste management. One of the things that is done is recycling, with waste sorting station for customers to recycle various items from paper to aluminum, and also for staff in the kitchen to recycle metal, plastic, and glass (Grand Valley State University Campus Dining, 2016). Much of the sorted wastes are able to go to composting, which is another practice that Campus Dining has adopted. Along with food waste, they have begun using compostable trash bags in their facilities as well as supplying compostable take-out bags for customers, which allows for even less waste to be sent to landfills (Grand Valley State University Campus Dining, 2016).

There are several other practices that GVSU has in common with MSU and CMU. Some of these practices include, participating in the RecycleMania program, created its own zero waste program which is implemented at football games and other athletic events, and the elimination of the use of trays in the dining halls as MSU has done in a few of its locations (Grand Valley State University Campus Dining, 2016). As part of the zero waste program at GVSU, customers are able to request zero waste meals in

which there will be no waste remaining once the meal has been consumed, sending absolutely no waste to a landfill from that meal.

Grand Valley State University Campus Dining also implements other various strategies as well in order to produce less wastes through its operations, all listed on the “Sustainability” page of their website (2016). One of these practices is the offer of \$1.00 coffee refills to customers reusing coffee cups rather than getting a new one for each visit. The remaining strategies that they discuss are implemented throughout their own operations, not necessarily on the customer side of things. These strategies include: using low emission fluorescent lights in their coolers, using flex-fuel vehicles for food deliveries, using eco-friendly cleaning products, only purchasing 100% recycled office paper, and using digital menu boards in their locations rather than printing menus each day (Grand Valley State University Campus Dining, 2016).

RecycleMania Tournament

The RecycleMania Tournament, which is competed in by Central Michigan University as well as the other two universities in Michigan that have been discussed, is “a friendly competition and benchmarking tool for college and university recycling programs to promote waste reduction activities to their campus communities” (RecycleMania Tournament, 2017). RecycleMania will be the main focus as we explore ways to expand and reformat the tournament to encourage CMU, as well as other universities to more effectively minimize waste at their institutions.

The RecycleMania Tournament is an eight-week program that is put on each spring semester (this year being from Feb. 4 – Apr. 1, 2017) where over 300 schools across the United States and Canada compete to see which can recycle the most. Throughout the tournament, schools must report “the amount of recycling and trash collected each week and are in turn ranked in various categories based on who recycles the most on a per capita basis, as well as which schools have the best recycling rate as a percentage of total waste and which schools generate the least amount of combined trash and recycling” (RecycleMania Tournament, 2017). By reporting these numbers, each school is able to see how their waste management program compares to those of other schools across the US and Canada.

Just as with any tournament, RecycleMania has rules set into place that each participating school must follow, which are all listed on their website under the page titled “Rules” (2017). The tournament is open to institutions of higher education, which would mean any college or university, and is geared toward those colleges and universities in the US and Canada, even though secondary institutions in other countries are also allowed to participate. “RecycleMania offers different levels of participation. Depending on a school's goals and its ability to track and report weight data, they can participate in any or all levels” (RecycleMania Tournament, 2017). The main level of participation within the program is the eight-week program which has been mentioned. “Schools report weight of recyclables and other materials each week and are featured in regularly updated rankings throughout February and March. Schools are ranked and national winners designated for the Diversion and Per Capita Classic categories” (RecycleMania Tournament, 2017). There are also other levels of participation in the tournament in which schools are only required to report one time at the end of the tournament. These one-time reporting categories include GameDay Basketball where participating schools report recycling and waste diversion at the end of a home game, the “E-cycleMania” where schools report the amount of scrap electronics collected at the end of a one month period, the “Race to Zero Waste” Building Competition where efforts to reduce, reuse, and recover the greatest amounts of waste from a specific building are reported, and also the Campus Engagement Case Study Competition where schools are judged on “a campaign to engage a campus audience on a targeted waste minimization goal” (RecycleMania Tournament, 2017).

Figure 1 about here

Figure 2 about here

Problems within the RecycleMania Tournament

By looking at the rules of the RecycleMania Tournament and the way that it is set up, we can identify several problems which could defer schools from participating, or not provide participating school with a proper incentive to continue to develop their waste management plans. These problems can be found in the regions to which the tournament is geared, being just the United States and Canada, the limited ability of school to participate who do not have the proper technology to weigh and report their recycling and waste diversion, and the award being won at the end of the competition, and the fact the competition only runs for eight weeks of a 32-week academic year.

The RecycleMania Tournament is geared toward school in the United States and Canada. This seems like a great thing, being that so many school are able to participate and compare themselves to much of the rest of the continent. However, this is also limiting schools by them only competing against the strategies of these two countries. There are plenty of other countries in the world, such as many European countries who are far ahead of us in sustainable development. By having school in the United States and Canada compete against school who are doing much better, it encourages they themselves to do much better in order to remain as competitive in waste management as they had been when it was only the two countries competing. There are also many countries who are far behind us who could benefit from being a part of this tournament, being introduced to new ideas in waste management.

The next problem that can be identified can actually discourage schools from participating in the tournament all together. In most of the categories of the tournament, including the "classic" category of the eight-week competition, participating schools must weigh the materials that they have recycled and waste that has been diverted from landfills in order to report that data so they can be ranked against other participating schools. For schools who do not have the funding for this technology to weigh their recycling and waste diversion and to report that data, they are unable to participate, which could also hinder their efforts at developing their own waste management plans. These schools are at a disadvantage seeing as they have no way to participate in a "free" competition, and also are unable to lessen the environmental impact of their campus as other school can who can afford this technology.

Another problem that can be found with the RecycleMania Tournament is the lack of incentive for participating schools to win. Currently, the winning school receives a trophy made from recycled materials which they are able to host on their campus until the results of the next tournament are finalized (RecycleMania Tournament, 2017). A traveling trophy isn't the best way to encourage schools to put more and more into their waste management programs. Bragging rights are nice, however, that does not help schools to continue improving on upon the plans that they already have in place. Also, having simply a trophy as a prize for winning the competition, there are some schools that may not see the benefit in competing in such a competition.

The final problem identified which could be worked on is the fact that the RecycleMania Tournament only runs for an eight-week period while the academic year is typically 32 weeks long. Schools only measure and report the amount of materials being recycled and the amount of waste being diverted during the period of the tournament. With the tournament taking up such a small portion of the school year, it leaves potential for many school to only be more sustainable during the tournament so that they can compete for the trophy and bragging rights. There is nothing to stop them from straying away from the practices that are put into place during the competition for the remaining 24 weeks of the academic year when recycling and waste diversion isn't needing to be weighed and reported for the RecycleMania Tournament. A longer period of time in which the schools are being evaluated would be more beneficial to the environment and to the schools in question.

Expansion and Reformation of the RecycleMania Tournament

We will now explore different ways in which the identified problems can be improved or corrected to encourage Central Michigan University Campus Dining and the rest of the participating schools in the RecycleMania tournament to improve upon their waste management programs. The first solution that we will look at is expanding the program to include countries outside of the United States and Canada in

order to make the tournament more competitive and more beneficial to schools around the globe. The second solution we will look into is making it possible for more schools to be able to participate in the competition, even those within the United States and Canada, who currently do not have the means to compete. The next solutions will include creating a more valuable reward to the winning school in order to give more incentive to participate in the program, and expanding the time in which the tournament is conducted.

As previously discussed, the fact that the RecycleMania Tournament currently only has schools participating within the United States and Canada can greatly hinder the progress being made to each school's waste management program as well as prevent schools in underdeveloped countries have a constructive way to better implement sustainable waste management plans at their institutions and within their countries in general. The rules of the tournament indicate that schools outside of the US and Canada are more than welcome to participate, however, no schools outside of this region are doing so. This leads one to believe that other countries are not being made aware of the RecycleMania Tournament. If other countries are truly welcome to participate in this tournament and compete for being the best school at recycling, then it should be advertised to schools in other countries, starting in Europe to help make already participating schools need to work harder to remain competitive against schools in other countries who are far ahead, and also to countries south of the United States in order to help pull in schools who are behind the already participating schools. By expanding the tournament to these extra countries, it would be effectively making schools in the United States and Canada need to work harder to remain competitive as well as encourage the implementation of waste management plans at secondary universities in underdeveloped countries and expose them to new strategies that can help them to be as equally competitive in the competition.

Exploring ways in which it can be made possible for more schools to participate in the program, particularly those that lack funding for the technology necessary to compete, we can look into providing grants for these schools to purchase the necessary equipment so that they can report the necessary data and also be able to look at their progress as they start competing in the competition. To prevent schools from collecting the grant who do not financially need it in order to purchase the necessary equipment to participate in RecycleMania, an application process would be undergone in which the applicant institution would express interest in the tournament by providing an in-depth description of their current waste management plan and how being able to participate in the tournament would help to improve its waste management plan, as well as expressing the institutions financial need for the grant to purchase said technology. Being a grant, recipients would not need to repay the financial help. The repayment could be found in the positive impact that is being made on the environment as each recipient of the grant is able to use the information collected from the new equipment to participate in the RecycleMania Tournament to continuously improve its established waste management plan, increasing the amount of materials being recycled and the amount of trash being diverted away from landfills.

The next solution that we will look at will give every participating school a better incentive to be more competitive in the tournament and continuously find new ways to improve upon their waste management plan that they have established at their institution. As previously discussed, the only award currently being offered to winning schools in each category of the RecycleMania Tournament is a trophy made from recycled materials and bragging rights for the feat that they have accomplished. The proposed solution to this problem is a prize of monetary value that can be used by the winning school to help grow the waste management plan at their institution. According to Mark J. Epstein in his book *Making Sustainability Work*, he discusses how "many companies have programs that provide awards to employees for exemplary sustainability performance" (Epstein, *Making Sustainability Work*, 2008). The same concept can be applied to this tournament to encourage a stronger participation effort from more schools, and also the participation of more schools in general in the competition. Just as some companies reward employees for exemplary sustainability efforts, the RecycleMania Tournament can reward colleges and universities for the same thing. The larger the tournament grows and the more outside support it gets, the larger the prizes can be.

The final solution that we will look at is extending the time-period of the tournament from the eight-week period in the spring semester of the academic year to include the entire academic year. By the tournament only lasting eight weeks out the academic year, we are leaving a large portion of time free for colleges and universities to slack in the work that is being done in their waste management programs. For the tournament, participating institutions are required to report weekly weights of recycled materials and waste diverted from landfills. Outside of this time-frame, institutions do not have the same incentive to keep up the efforts that were made during the tournament. By requiring participating institutions to report data each week for the entirety of the academic year, they are able to get a much more accurate representation of the sustainability efforts being put forth and the motivation to do well year-round is present as anyone interested in viewing the progress of each participant has access to the information of how they are doing in regards to their waste management efforts. All participants would be required to be transparent with the goings-on in their waste management programs and that alone is motivation to do well as to look good for anyone viewing the information being reported for the RecycleMania tournament. Epstein also discusses in his book the importance of this type of reporting. He states that “with appropriate sustainability structures and processes, organizations can enhance corporate image and win the trust and loyalty of those outside the organization: customers, shareholders, suppliers, and others they depend on to conduct business” (Epstein, *Making Sustainability Work*, 2008). This can be very beneficial in terms of colleges and universities as potential students are able to see sustainability efforts of institutions that they are considering for their higher education and can use the collected data in order to make their decisions if they wish to choose an institution that prioritizes sustainable development. This information can also be used by alumni and other donors to the college or university in deciding what to donate money to. If they are able to see that institutions are doing well in the area of waste management, they may be more likely to donate to continue the progress that is being made. Extending the time frame in which the RecycleMania Tournament is conducted can help institutions to be more transparent with their waste management efforts, which can lead to positive financial externalities as well as higher enrollment of incoming students.

As we have discussed, the RecycleMania Tournament has several areas in which improvements and revisions can be made. By expanding the range of institutions participating in the tournament, helping to make more schools able to participate, providing a larger incentive for participating institutions to put forth a stronger effort, and expanding the time-frame in which the tournament is conducted, the tournament would be effectively making the tournament much more competitive and encouraging more institutions to improve their waste management programs. Both the participants and the environment would benefit from the suggested changes to the tournament.

How Central Michigan University Campus Dining Can Become More Competitive in Revised RecycleMania Tournament

Campus Dining at Central Michigan University has already put forth much effort in previous years to improve its waste management program. However, there is much more that can be done to make it more competitive in the RecycleMania Tournament, and much more that needs to be done in order to have any chance coming out on top with the suggested changes to the tournament. The improvements that we can immediately begin to implement include building on strategies that are already put in place as well as looking at what has worked for other institutions and implementing similar practices.

In regards to what is already being done in CMU Campus Dining, improvements can continue to be made in the leadership of each of the locations on campus. By having managers that are passionate about sustainability and desire to address environmental issues, it is much easier to get the entire staff on board with a sustainability plan. Just as having a professor that is passionate about the subject they teach makes a class much more enjoyable and easier to learn, having a manager that is passionate about recycling and diverting waste from landfills makes staff members more passionate themselves about these practices and more willing to implement the strategies that are in place and getting them excited about the work that they are doing to make their environment a much better place.

Some practices that Central Michigan University Campus Dining can adopt from other institutions is the idea of trayless dining as is done at some locations at Michigan State University and Grand Valley State University and also the practices of holding zero waste athletic events as GVSU has implemented. Both of these practices can make great contributions to the zero waste efforts already in place at CMU. By implementing the practices of trayless dining in some of its locations, Campus Dining would effectively be reducing the amount of food being taken by customers, and also reducing the amount of food waste left over as there would no longer be more food being taken than can be consumed by each customer. Adopting the practice of zero waste athletic events would also do wonders for the amount of food waste being generated by the institution. At events such as football and basketball games in which large numbers of students, faculty members, alumni, etc. are in attendance, implementing zero waste practices can divert a large amount of waste from ending up in landfills. There is often a large amount of trash left behind following such events, and this can be avoided, or perhaps lessened, if zero waste practices are implemented.

Another practice that can be adopted from Michigan State University Culinary Services is the donation of foods that are no longer able to be served in their own facility, but can still be consumed through the distribution of other facilities such as local food banks. Currently, this food waste is being composted. However, if the practice of donating this type of food waste to local food banks was adopted, Campus Dining would be becoming more sustainable in a social aspect as well as an environmental aspect. These are just a few of the many practices that can be adopted from other institutions are improved upon to be more effective in waste management.

Possible Impediments and Solutions

As with any plan, the proposed revisions made to the RecycleMania Tournament are not fool proof. There are things that can go wrong, or obstacles that would need to be overcome with any of the proposed solutions to the problems that have been identified. Expanding the reach of the tournament could lead to issues with an overwhelming amount of data being submitted and the need for a new program to deal with said information. The ability to supply grants to schools who wish to compete in the tournament but do not have the means to purchase the necessary equipment can be greatly limited by lack of funding and lack of interest by outside donors. The same problem can be had with the ability to award a prize of monetary value to the winning school of the tournament. These problems would each need to be considered, and solutions to preventative action be taken place to make the proposed revisions possible.

By expanding the reach of the tournament to include other countries and potentially hundreds more institutions, there would be an overwhelming amount of data being submitted each week, especially considering that the length of the competition would also be extended to include all 32 weeks of the academic year rather than just the eight-week period that the tournament currently runs. To accommodate this influx of data being submitted, a new program would likely need to be created in order to keep the information organized, and be able to handle the amount of data being submitted. Problems such as crashed system could arise, but by taking preventative action and formulating a new information program before the revisions to the tournament are made, they can be easily avoided.

The other major problem that can arise from the proposed changes to the RecycleMania Tournament is the funding to supply grants to schools who need financial aid in purchasing the equipment necessary for the tournament, and also for the prize that would be awarded each year to the winning schools of each category. Funding would need to come from outside donors such as non-profit organizations or government grants that are in support of what the tournament is trying to accomplish with its participants. If the interest is not there for the organizations needed to supply the required funding for the grants and awards that the tournament would provide, the revisions to the tournament would be difficult, if not impossible, to be made. Prior planning and proposals would have to be made to secure the proper funding for the Tournament before the changes to RecycleMania could be made. However, if everything is done properly and the correct amount of planning has gone into it before the changes are implemented, the new and improved RecycleMania Tournament could be a huge success, reaching more

institutions across the globe than ever before and getting more and more people on board with recycling and waste diversion practices to minimize the impact that higher education insitutions can have on our planet.

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		Regular Season Week (Cumulative)							
Year		1	2	3	4	5	6	7	8
Diversion <i>weekly recycling rate (%)</i>	2017	39.42%	36.97%	35.32%	34.71%	33.56%	34.80%	38.45%	38.10%
	2016	35.57%	37.39%	35.23%	36.81%	34.04%	32.47%	32.89%	34.11%
Per Capita Classic <i>lbs/person</i>	2017	0.87	1.65	2.48	3.29	3.82	4.76	7.14	8.14
	2016	0.83	1.79	2.59	4.04	4.45	5.04	5.99	7.67
Total Recycling <i>Lbs</i>	2017	43,840	84,300	125,350	167,700	183,120	221,360	301,560	344,020
	2016	37,990	79,650	110,570	157,670	169,350	196,666	240,576	290,216
Waste Minimization <i>lbs/person</i>	2017	4.46	9.15	14.24	19.39	21.89	25.52	31.47	36.23
	2016	4.35	8.68	12.79	17.46	20.28	24.69	29.81	34.69
Paper <i>lbs/person</i>	2017	0.37	0.62	0.9	1.07	1.3	1.77	3.61	3.87
	2016	0.3	0.66	0.91	1.94	2.12	2.35	2.72	3.69
Corrugated Cardboard <i>lbs/person</i>	2017	0.34	0.71	1.09	1.54	1.74	2.08	2.51	3.05
	2016	0.43	0.9	1.35	1.65	1.82	2.12	2.5	2.92
Bottles & Cans <i>lbs/person</i>	2017	0	0	0	0	0	0	0	0
	2016	0	0	0	0	0	0	0	0
Food Organics <i>lbs/person</i>	2017	0.89	1.74	2.55	3.44	3.53	4.12	4.96	5.67
	2016	0.72	1.46	1.92	2.39	2.45	2.97	3.81	4.16

Fig. 1. Weekly results of Central Michigan University RecycleMania Tournament, 2016-2017. Graph from RecycleMania, Scoreboard, Participating Schools, (RecycleMania Tournament, 2017).

Cumulative Recyclables Per Capita					
Universities	2013	2014	2015	2016	2017
Central Michigan University	8.076	7.454	8.167	7.67	8.137
Michigan State University	18.149	14.956	15.434	14.171	15.2
Grand Valley State University	8.033	7.373	5.974	7.136	6.547
Western Michigan University	N/A	8.235	6.972	5.24	N/A

Fig. 2. Cumulative recyclables per capita results for various universities in Michigan, 2013-2017. Graph from data from RecycleMania, Past Results, (RecycleMania Tournament, 2017).