Memorandum

To: John Pepi

From: Natalie Starr, DSM

Re: Task 7: Evaluate Quality, Message and Audience Penetration of UMass Information Efforts – Focus Group Summary and Results

Date: October 30, 2019

Background

To better understand University of Massachusetts’ (UMass) students’ perceptions, behavior/use and understanding of the campus waste management infrastructure (e.g. trash, recycling and composting) including how and where they get information on how to properly manage their waste and how well they understand this information, a focus group methodology was applied. Focus groups are used to gather information that is difficult to obtain through traditional surveys and help researchers to understand a population’s perceptions about a particular issue or system, even if these perceptions may be inconsistent with facts.

Introduction

DSM Environmental Services (DSM) conducted two separate focus groups on Wednesday, September 25 in a University of Massachusetts (UMass) Campus Center Conference Room. One meeting was held for students who reside on campus (at 6:30 p.m.) and a second at 4 p.m. for off campus, full-time students.

Students were randomly selected for the focus groups after weeding through responses to an email solicitation put out by UMass to 1,600 representative, random students. A $25 gift certificate to the University Store was used as an incentive to encourage students to respond to the email and sign up for a focus group.

From those that responded, a final list of students was selected to represent all four classes (freshman through senior), a range of dormitories on campus, and a range of major areas of study. A question about disclosing participation in sustainability initiatives was included in the solicitation to ensure that respondents were not selected based on their interest in waste management. Students did know from reading the entire email solicitation that they would be asked to provide their ideas and opinions about the handling of trash and recyclables on campus and that the Focus Group was part of a larger Campus Waste System Study.

The final list of potential participants totaled 28 off campus and 33 on campus students for the two focus groups. DSM initially e-mailed 18 on campus and 18 off campus students from this list asking they confirm their participation at the specified data and time. As confirmation responses came in, DSM
tracked the number of confirmed participants for each group. When selected students did not confirm participation, DSM went back to the final list to reach out to additional students from each group. The goal was to ensure that there were enough students confirmed in each focus group to be representative of UMass as a whole, and that at between 12 and 15 students attended each focus group.

As of Wednesday morning, DSM had confirmation from 18 on campus and 14 off campus students and ultimately a total of 17 on campus and 11 off campus students participated in the two sessions.

Upon arrival at the meeting, students were asked to complete a short, written survey and fill out a name tag. Next, the focus group purpose and guidelines were explained to students as well as the note taking process. Students were informed that no names would be used in note taking, but that they would be assigned a number that was associated with their seated position at the table. The assigned number was then used internally by DSM to associate the completed pre-focus group survey responses with comments made at the meeting. The written survey results are summarized in Table 1. Note that the combined results are weighted based on a total of 28 participants.

<table>
<thead>
<tr>
<th>Summary</th>
<th>On Campus (%)</th>
<th>Off Campus (%)</th>
<th>Combined (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>53%</td>
<td>9%</td>
<td>36%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>24%</td>
<td>36%</td>
<td>29%</td>
</tr>
<tr>
<td>Junior</td>
<td>24%</td>
<td>14%</td>
<td>19%</td>
</tr>
<tr>
<td>Senior</td>
<td>55%</td>
<td>55%</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Meal Plan</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>100%</td>
<td>27%</td>
<td>71%</td>
</tr>
<tr>
<td>No</td>
<td>0%</td>
<td>73%</td>
<td>29%</td>
</tr>
<tr>
<td><strong>Meals at UMass</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sit Down</td>
<td>82%</td>
<td>67%</td>
<td>76%</td>
</tr>
<tr>
<td>To Go</td>
<td>18%</td>
<td>33%</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Habits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycling Mostly</td>
<td>94%</td>
<td>100%</td>
<td>96%</td>
</tr>
<tr>
<td>Recycle Sometimes</td>
<td>6%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Separate Food Waste Mostly</td>
<td>53%</td>
<td>73%</td>
<td>61%</td>
</tr>
<tr>
<td>Separate Food Waste Sometimes</td>
<td>41%</td>
<td>27%</td>
<td>36%</td>
</tr>
<tr>
<td>Never Separate Food Waste</td>
<td>6%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Prior or Current Involvement in Sustainability Initiatives</strong></td>
<td>29%</td>
<td>9%</td>
<td>21%</td>
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<tr>
<td><strong>Preferred Dining Hall</strong></td>
<td></td>
<td></td>
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<tr>
<td>Franklin</td>
<td>25%</td>
<td>45%</td>
<td>33%</td>
</tr>
<tr>
<td>Berkshire</td>
<td>29%</td>
<td>9%</td>
<td>21%</td>
</tr>
<tr>
<td>Worcester</td>
<td>20%</td>
<td>18%</td>
<td>19%</td>
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<tr>
<td>Hampshire</td>
<td>20%</td>
<td>9%</td>
<td>15%</td>
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<tr>
<td>Hampden</td>
<td>6%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Blue Wall</td>
<td>18%</td>
<td>7%</td>
<td>7%</td>
</tr>
</tbody>
</table>
During each focus group specific questions were asked about students use and understanding of the campus waste management system, including why they participate in recycling and separate material for composting and what keeps them and other students from participating fully or at all. The results of this discussion are summarized under each of the topics listed below.

**Current Management of Trash and Recycling**

_Students were asked “How do you currently manage your trash, recyclables and food waste on campus? How do your roommates, friends and colleagues behave with respect to trash, recycling and food waste?”_

**On Campus Students**

While all but one student reported in the pre-survey that they recycle most of the time and roughly 50% reported separating food waste most of the time, they clearly experience some challenges with full participation. And they say that their fellow students and friends have trouble with what to recycle and some are wishful recyclers, or don’t recycle at all (they see recycling in the trash often). And two of the students were skeptical about whether UMass actually recycles the material that has been separated.

On Campus students try to recycle, however, they are overall unsure of the system. They don’t see many compost bins around campus or in their dorms, so they put compostable materials in the trash. They make decisions as to where to put materials based on convenience and accessibility. On Campus students did not feel that they were taught about the system.

**Off Campus Students**

The off campus students expressed that they usually recycle and separate food waste but only if containers (for recycling and compost) are next to the trash and are easy to find. While three students said they would carry recycling and food waste with them until they found a container, they also said that most students would put everything in the trash bin, if there are no recycling and/or composting bins next to it, and the location of the nearest recycling or compost bin is not within sight distance. The off campus students expressed that compost bins are often hard to find on campus and they do not want to carry food waste around with them so compostable (whether food or packaging) are often disposed when they are not eating in a dining hall.

While they eat the majority of their meals purchased on a meal plan in a DCS (not to-go), there is some lack of knowledge about the recyclability and compost ability of the to-go containers and packaging. While students genuinely would prefer to separate recycling and food waste, they will only do so if it is convenient.

**Why Students Recycle and Compost**

_Students were asked to describe their motivations for recycling and for separating food waste for composting._

**On Campus Students**
Many of the on campus students recycle out of habit. They did it at home and there is family pressure to do so. In general, climate change may not be as big a motivator for everyone as other environmental issues.

There is some doubt among students about whether the materials separated are actually getting recycled. This is in contrast to separated food waste where students seem to understand that composting is immediate and therefore more real, although not all of the students are in the habit of separating food waste.

Overall, most of the students say they do care for the planet, and are concerned about the future, waste and limited environmental reservoirs. They understand climate change is occurring and they think they can’t control it. But not all of them make connections easily with the impact of recycling or composting with that outcome even though they see that for the most part, they are willing to do what small things they can to preserve the environment, and combat pollution and climate change.

In general they say that where available, food waste composting is easy and the least one can do but that UMass needs more bins. They also say that some students don’t understand food waste and compostable separation.

Finally social media and environmental images can motivate their behavior or scare them, but they are unsure if this is the best motivator.

**Off Campus Students**

Overall, the off campus students (most of whom have been on campus for a year or two) seem to be motivated to recycle primarily because in many cases it is easy to do so (the container is next to the trash container). They also say that environmental issues such as global warming, climate change, and plastic pollution drive them to have better habits. For one student, environmental justice issues were a primary driver. For others, in most cases it is relatively easy to do so, so there is no reason not to separate.

**Why Student Don’t Always Recycle or Compost, and Why Their Peers May Not Participate**

**On Campus Students**

In the residence halls, the trash container is the first one you see in the trash room (making it easier to throw things away). Along the same vain, students generally use the container that is the most convenient when they are in a rush and often that is the trash containers (whether in the dorm or in other study areas). In the end, items don’t get recycled.

Some students may not recycle because of the odor (the trash is collected everyday but the recycling less often). Friends will put recycling in the trash (in the dorm) if the recycling container is full, and some won’t recycle if there is trash visible in the recycling bin.

As for composting, with some degree of uncertainly, some students don’t separate at all.
In some dining halls (such as Franklin), they see trash bins but not compost (or recycling) bins, so they may put everything in the trash. (Some of the students didn’t realize that the food service employees were separating food waste from their trays in the kitchens after students returned their durables.).

When considering separating (trash from recycling or composting), the plastic packaging says it is recyclable or compostable, but they are not certain if this is true. Uncertainty leads to placing items in the trash.

One student said some larger grab and go containers don’t fit in the compost bin so they are put in trash.

And finally, there is some confusion about single stream and what this means, as well as what is included. Is the unacceptable material being sorted out?

There is also some confusion about what to do with the following materials: to go packaging, pizza boxes, all plastics, chip bags, and cups including the world centric cups.

Finally, the media coverage on recycling getting disposed may lead to a lack of faith in the system and keep some students from separating.

They need to have the 3 bin system everywhere including more access in large buildings as well as adding bins to the bus stops.

Overall there is some uncertainty about the UMass system.

**Off Campus Students**

In contrast, most off campus students believe that if compost and recycling containers are available and well-marked most students will use them fully. However they don’t think there are enough containers on the grounds and outside the dining halls for this to happen. And they sometimes see trash containers overflowing (on the grounds) so they believe students are forced to use the recycling containers for trash.

They also notice there isn’t consistency with container colors and accepted items across campus. One student mentioned that not all of the recycling containers they see are blue and not all of them are single stream. This can lead to confusion about what is accepted in the overall program.

As far as food waste separation goes, the main issue is a lack of composting containers and to some degree, education. They believe that students will use compost bins if they are convenient and readily available. More education about what composting is may help to push it into being a habit on campus.

**Where Students Get Information about How to Recycle and Compost**

**On Campus**

They don’t get their information on recycling or composting from UMass, with the exception of the signs on the bins themselves and the posters in the trash rooms. Both the signs and the posters are really helpful. If they have the time to pay attention, the signs on the containers clearly tell them what to put in each container. The Blue Wall has excellent signage on the containers.
For some of them, the labelling on the packaging helps them figure out what to do with the waste.

But in general they don’t go to a UMass website to get recycling or composting information. One student mentioned that if they were to use the internet to find information, they would use Google instead of going to a UMass website.

Off Campus
A number of off campus students do not believe they get information from UMass about how to recycle or compost except for what is posted on the containers themselves. They think they came to UMass with background knowledge of trash, recycling, and composting and they look at the packaging numbers and bin graphics to tell them what goes where.

Since most of the off campus students in the focus group had already been on campus for more than a year (most living in a residence hall), their knowledge may have grown over time from being at UMass. One student said the RA educated her about single stream. Others remembered the posters in the dorm trash bins. And several said they recognized blue bins being associated with recycling.

In general, the off campus students’ prior knowledge about recycling and composting likely came partially from their earlier experiences at UMass but they get their information about what to separate where from the bins they encounter throughout campus including the graphics used on the bins.

Best Methods to Reach Students With Information

On Campus Students
Students could use more posters in some of the trash rooms. And they could use a poster with information on recycling and composting in their dorm rooms (especially on the containers themselves). They have a recycling and trash container but no information in the room on how to use it so sometimes roommates (and other students) don’t know what to do.

Students said there could be an increased online presence such as an App or a way to scan the package and get a direct answer of whether the packaging was recyclable or compostable. More information on the packaging itself could be helpful.

And one student mentioned putting information on the UMass main page.

There also should be increased signage on every collection bin.

As far as getting students to actually separate, any outreach information used might emphasize the positive vs. negative impacts of recycling, and try to incentivize this behavior in some way (such as some way to pay them to recycle, or have prizes or contests).

There should be transparency (as to where material is going) and some way to create a sense of community pride in participating. Perhaps the use of some statistics specific to UMass about the benefits from student actions. The use of imaging such as pictures of what happens when you don’t recycle (landfills piling up, plastics in waterways), or something to emphasize the environmental impact from not recycling might work.
**Off Campus**

Some students find that the QR codes (scannable codes) are helpful but not readily available at the bins or signs. This could be a good way to get better information. Well signed and designed containers go a long way to helping students understand the system.

One student mentioned that the Reddit accounts might be used to reach students. Another student thought placing a physical barrier to make students think before throwing materials in the trash might work, while another student said that a comprehensive list of what is and isn’t acceptable (for recycling and composting) might be put on a web page.

**Students Perceptions on Methods to Increase Participation and Diversion**

**On Campus**

Students need to have better access to recycling (and composting) with bins included with every trash can.

If they are to separate food waste, they need more accessible compost containers. And they need to know where material is going. It might be helpful to have DIY plate clearing in the dining halls so that students can learn by practice.

It might be helpful to have a bottle return (Coinstar) or redemption center on campus to provide an economic incentive for students to return containers.

Another motivator might be to stress the idea of clean air, clean water, and a clean environment as an outcome from recycling and composting contrasting to WTE ash from incineration of trash (as an outcome from not separating).

Signs also need to be clear on all bins.

You also might add information on the students’ main news page when they log into the UMass online portal system. Students said that information about the waste, recycling, and compost programs could be listed on this page especially since the school touts their sustainability programs.

There is concern that alcohol containers not getting recycled in the dorms because students try to hide them in the trash to not get caught. Could there be a rule that if it’s just beer cans you can’t get in trouble? It was suggested to put a lid on recycling bins so you didn’t see alcohol containers right away.

**Off Campus Students**

Off campus students would like to see more information about the UMass programs, their benefits (such as some statistics), and transparency about what is being done with the materials separated.

They also think that more collection bins (recycling and composting in certain places like the Blue Wall and SOM) and uniformity in bins would make it much easier to know what to separate where.

Finally food waste doesn’t have to be generated. In many cases, portion sizes are too large and food waste generation could be avoided.
The three bin systems are absolutely the most convenient. Also the cut outs (or restrictive openings) clearly help to put the right materials in the right bin. One student mentioned that the trash cutoff was too small for a large compostable clamshell forcing reconsideration of putting this in the trash. Another student mentioned that you might make the trash container smaller in some locations to stress the use of the recycling and composting containers (but not in locations where other types of trash are generated in large quantities).

Off campus students also expressed a need for either more or larger outside trash and recycling bins on campus due to their perception that cross contamination occurs due to overflowing trash bins (so people use the recycling bin for trash) or overflowing recycling bins (causing students to use the trash bin for recycling).

Finally, more consistent bins across campus such as all blue would enable students to associate blue with single stream recycling and ensure that all buildings have these bins. This includes access to outside bins, bins at bus stops and areas where off campus students would need to recycle, compost, or put items in trash.

And there was interest in having UMass stress the impacts of waste on the planet - some students thought that instilling guilt or fear about the consequences of not helping would work while others thought it had to remain positive.

Conclusions

Assuming that the 28 students that participated in the two focus groups are representative of the student body at UMass, the following conclusions might be drawn from their responses.

- Most students would fully participate if they understand how to separate materials and if it is easy for them to do so.
- One of the most important factors would be the use of a consistently signed, three bin (trash, recycling and compost) system of containers throughout campus.
- The graphic shapes on the containers themselves are really helpful as to what goes in each, particularly for the composting and the compostable packaging.
- Students believe there are not enough composting bins on campus if UMass wants everyone to separate food and other compostable materials. At minimum, composting bins need to be located on the first floor of every building, and the first floor of every dorm.
- There is a need for communicating to students where materials are going (recyclables and organics) and what is ultimately done with them. This transparency would be really helpful in motivating students to separate and confirming that the bad news (about recycling) elsewhere does not mean that UMass materials are disposed. This also provides an opportunity to downplay any student fears and rumors that what they sort for recycling is routinely thrown away by UMass.
- There is also a need for some statistics on participation and how students’ good habits impact UMass and the environment (simple facts and data would make participation more tangible to students).
• While students generally connect with climate change, there is not a specific connection between recycling or composting and climate change. Making this connection might help to get all students to participate.

• UMass is known to most students as a sustainability focused campus. It is possible that taking this message to the next step with the benefits of student action may resonate well with most students.

• Some students believe that UMass should attend to the prevention of overflowing bins by adjusting bin size and servicing schedules to avoid users cross contaminating containers.

• UMass needs to clarify that the chasing arrows symbol on any product and/or associated resin numbers on plastic products/packaging is not the primary or sufficient method for determining acceptability in the UMass program.