

## **Abstract**

For our junior year writing course, we were given an assignment to write a proposal to fix something on campus. As students passionate about sustainability, our group elected to improve an aspect of campus we thought could boost our universities impressive green reputation. We all realized receipt printing is a large and wasteful process at UMass Amherst while both large scale stores such as Home Depot and smaller venues in downtown Amherst were able to implement an e-receipt system which saves money and resources. Although this proposal started as a class project, our group found through our research that this idea had true potential because it was economically and environmentally efficient. The school spends about \$60,000 per year on these receipts and upwards of 10,000 receipts are printed per day on purchases usually totaling less than \$10. This is problematic because the paper these receipts come on are not compostable or recyclable and can contain BPA, a harmful toxin which can enter the bloodstream dermally. We took our project a step further and met with the UMass Amherst IT team and the retail dining services director, Mr. Van Sullivan, to discuss the implementation of our proposal. They read our proposal and heard our case and it is now officially on their list of sustainable things to improve within the next 5 years on campus.

## **Essay**

At the start of our project, we had a feeling we could really make a difference on campus by eliminating receipts so we wanted to take extra care to insure the accuracy of our data. We met with the STEM librarian Ms. Naka Ishii about the best way to research our topic and she appointed several useful resources amongst which were found through the UMass Libraries website. She also consulted us on the uses and dangers of Google Scholar which was a popular search engine we all used prior to writing this proposal. Ensuring that our data was peer reviewed was important to us, so we navigated through the UMass Libraries search engines using their database option. We discovered the Web of Science database and used it to conduct literature reviews on peer reviewed toxicology journals for information on BPA accumulation in the body through receipt paper. We also used the PubMed database and UMA worldcat search engine to find journals. We always checked the "peer reviewed" box and ensured our data was from the last 15 years, since date retrieved is very important to APA style. Ms. Naka Ishii suggested we look for keywords such as "receipt landfills", "receipt paper", "BPA receipt paper", and "receipt paper costs" to get started on some preliminary research. A valuable resource that Ms. Ishii advised that we use was the references found at the end of journal articles. Since these articles were published for data we were interested in, many of the references used in the sources contained information on similar studies. We needed some data from the press and we thoroughly checked the accuracy of the data presented in articles such as those from *The Huffington Post*. We were also advised by her on the best way to write APA citations and to refrain from the automatic generating websites.

We obtained data for our proposal by communicating directly with UMass Auxiliary Services. We searched the UMass web page and contacted UMass Dining sustainability director, Ms. Althea Mortensen, and told her about our project. Ms. Mortensen thought our project was a great idea and recommended we meet with her boss, Mr. Van Sullivan, the interim director of Retail Dining. Mr. Sullivan supplied us with a detailed list documenting the annual amount of receipt papers printed by the school, in addition to the brand name of the paper and the thermal nature of it. Our group member Kyle Grasso, has taken extensive courses in mathematics and calculated the price of these receipts printed based on the number printed each year. The results were astounding. We found the university spends about \$60,000 annually on receipt paper and printers and moving to an E-Receipt system would eliminate this cost as well as the amount of UMass Amherst receipts put into landfills each year.

To determine the feasibility of the project, our group sought out to see if any other large scale universities had attempted to eliminate receipts. We found that the University of Wisconsin Madison, a school of 30,000+ students, has become receipt-optional. We have called them many times to determine how they implemented this and gave their contact information to Mr. Sullivan and the UMass IT team to see if they could replicate Wisconsin's E-Receipt system. On the UMass registers, there is no option to "not print a receipt", so when cashiers ask if you want a receipt and you reply "no" the receipt still prints. Even changing this option on the register system could save thousands of receipts daily for those not wishing to have their receipts printed.

The Dining Services managers agreed that the receipts were wasting a lot of money and used the estimates found in our proposal to value the potential savings of a receipt optional system. Although three members of our group are seniors, we wanted to ensure that the legacy of our project is not forgotten, so Taryn, the one undergraduate junior, will continue pushing these efforts in her senior year and is making it a focus of her sustainability fellowship opportunity she received this semester with Ezra Small, who is the Campus Sustainability Manager. She will be working directly with him as well as with a team of other sustainability-focused individuals to bring about this change on campus.