



2018

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Nicole Comeau

*University of Massachusetts Amherst*

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Comeau, Nicole, "A Proposal to UMass Amherst for an Electronic Time Reporting System" (2018). *Student Showcase*. 24.  
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# **A Proposal to UMass Amherst for an Electronic Time Reporting System**

**By Nicole Comeau**

**Green Office Fellow**

**Sustainable UMass**

**Fall 2018**

## Abstract

This proposal to UMass Amherst is for all campus offices to switch their employee time reporting operations to a universal electronic system in the interest of reducing paper and saving time. Waste reduction, including paper consumption, is a top priority for the administration and the campus, as it is for college campuses across the nation. As a Green Office Fellow in the Green Office Program within Sustainable UMass at UMass Amherst I conducted an electronic survey for my fellowship project during the Fall 2018 semester. This survey asked campus offices for information about their time reporting operations. The results and analysis are further explained below.

## Introduction

Waste reduction is a common initiative across many academic environments and some universities, such as UMass Amherst, have a sustainability priority to be a zero waste campus (Chancellor's Sustainability Advisory Council, 2017). Zero waste can be defined as sending nothing to landfills through reconfiguring the system in a way that reflects the cycle of nature where all resources are put back into the system (Kellogg, 2018). One way that schools are working to achieve this goal is through becoming a paperless campus achieved by reducing unnecessary paper use. With advances in technology, there are growing opportunities for reducing paper in the future. The University of Washington, Seattle Admissions Office switched to a paperless digital admissions process for most prospective students in 2015, with plans to expand it to all prospective students in the coming years. The modernization project eliminated the need to print 32,000 application packets during the application cycle for fall 2016 admissions, dramatically reducing paper use and waste generation (Toman, 2016). In July 2017, Seattle University (SU) moved over to an electronic procurement system called ProcureSU. The new system automates purchasing, receiving, and payment processing on campus and has contributed to greening the SU campus (Cieters, 2018). Mandatory receipt printing at campus dining locations was eliminated in 2015 at the University of Wisconsin-Madison. This policy change made printed receipts optional and decreased receipt paper usage by 88% within seven months of implementation (Sakai, 2016). At Providence College two studies were conducted to determine if printing exams double-sided and arranging multiple choice answers in a more condensed, two-by-two columns and rows format would affect student performance. It was

determined that printing exams with an effort to reduce paper through either of these methods have no effect on student performance and would help to reduce paper and save money (O'Connor, 2014). Planning processes including grant applications and curriculum proposals were moved to an online platform called SharePoint at Johnson County Community College. This change made processes more efficient and eliminated the need to print paper copies for editing and review purposes (Urbanski, 2016). In academic environments unnecessary paper use has significant environmental and economic impacts but many schools are taking creative steps to reduce these impacts. I chose this project because for UMass Amherst and its 7,000+ workers, converting to a universal online time and attendance reporting system could provide another resource-saving opportunity and assist UMass in becoming a zero waste campus (University of Massachusetts Amherst Office of Institutional Research, 2018).

## Materials & Methods

The idea for writing a proposal to UMass to switch all time and attendance reporting to a universal online system was inspired by a waste and recycling credit on the Green Office Program checklist. Green Offices can receive this credit if they have incorporated electronic timesheets or financial reports rather than paper. While completing walkthroughs of Green Offices on campus, it became apparent that offices have various methods of time reporting.

Collecting more solidified data about time reporting methods on campus was completed through a Qualtrics survey which I created and sent to 99 Green Office Eco-Leaders at UMass. The survey questions can be seen in Appendix A. Eco-Leaders were also encouraged to forward the survey to other offices that may not be a part of the Green Office Program in order to reach a larger audience. A total of 49 offices on campus responded to the survey. 44 of these respondents stated that they were the Eco-Leader for their office and 5 of these respondents stated that they were not the Eco-Leader.

Developing the survey and analyzing the responses was assisted by other Sustainable UMass Fellows as well as my fellowship faculty sponsor and supervisors. Each of these people provided feedback for my survey as well as guidance in the creation process.

## Results

Overall, the Qualtrics survey generated a total of 49 complete responses from offices all over the UMass Amherst campus. Although this does not account for every campus office, it is a representation of the hundreds of offices at UMass Amherst. Survey responses varied significantly touching on both printed paper timesheets and electronic time reporting systems as well as offices who use both methods for time reporting. A complete list of survey respondents by office name is shown in Figure 1 below.

**Figure 1: List of Campus Offices at UMass Amherst that Completed the Survey on Time Reporting**

Berthiaume Center for Entrepreneurship	Biochemistry & Molecular Biology	Biology Department	Campus Design and Copy	Campus Recreation
Cashin Service Desk	Center For Agriculture, Food and the Environment	Center for Research on Families	Central Career Services	Central Heating Plant
CNS Department of Administration and Finance	CNS Office of Advancement	College of Engineering Dean's Office	College of Social and Behavioral Sciences Dean's Office	Commonwealth Honors College
Crabtree Residential Service Desk	Dean of Students Office	Dean's Office of the Graduate School	Department of Environmental Conservation	Department of History
Design and Construction Management	Dickinson Residential Service Desk	Digital Scholarship Center	Financial Aid Services	Hospitality and Tourism Management Department
Humanities and Fine Arts Dean's Office	Information Resources Management	Interlibrary Loan	Isenberg Marketing and Communications	Isenberg School of Management Dean's Office
Isenberg Undergraduate Programs Office	Library Access Services	Library Technology Services	Off Campus Student Life and Community Engagement	Office of Annual Giving
Office of the Bursar	Ombuds Office	Philosophy Department	Research Services, Library	Residential Life
Residential Life Student Services	Resource Economics	Scholarly Communication Office	Student Affairs and Campus Life	Student Government Association
Student Legal Services Office	UMass Center At Springfield	Umass Police Department	Undergraduate Admissions	

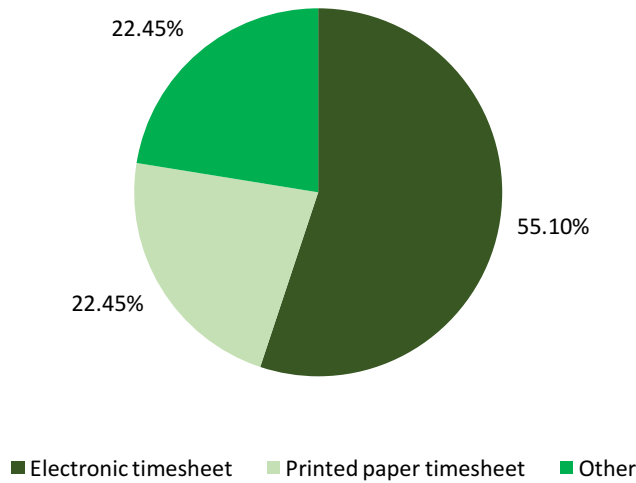
55.10% of respondents, or 27 office representatives, selected that employees in their offices used an electronic timesheet when reporting hours worked. 22.45% of respondents, or 11 office representatives, selected that employees use a printed paper timesheet to report their hours worked. Based on survey responses and factoring in that survey respondents estimated or were unsure, the results indicate that more than 95 employees from these offices are required to print paper timesheets each week. In addition, 22.45% of respondents, or 11 office representatives, selected “Other” for the method of time reporting in their office. Six of these offices stated that they collect employee time in both a printed and electronic format. For example the Office of Annual Giving, which has a high volume of student workers, indicated that their full time employees submit time electronically but their hourly student workers report time via paper. Campus offices that stated they use paper in their time reporting operations are listed in Figure 2 below.

**Figure 2: List of Campus Offices at UMass Amherst that Use Paper in their Time Reporting Operations**

Biology Department	Cashin Service Desk	Center For Agriculture, Food and the Environment	CNS Office of Advancement	College of Engineering Dean's Office
Crabtree Residential Service Desk	Dean's Office of the Graduate School	Department of Environmental Conservation	Department of History	Dickinson Residential Service Desk
Hospitality and Tourism Management Department	Humanities and Fine Arts Dean's Office	Office of Annual Giving	Philosophy Department	Residential Life
Resource Economics	Undergraduate Admissions			

Survey results for Question 5, “In your office how do employees report their time/hours worked?” are shown in Figure 3 below.

*Figure 3: Employee Time Reporting Methods in Campus Offices at UMass Amherst*



Survey respondents were also asked to state the benefits or incentives that they already receive from using an electronic timesheet or that they feel they would receive from switching to an electronic timesheet. Offices that already use electronic timesheets say that they are easier, save time, are more accessible as employees can report time from anywhere, do not require paper signatures needed for approval, more efficient, convenient, less cumbersome, resourceful as employees can refer back to old reports and store information, and that they help to save paper. Offices that use printed paper timesheets or another method say that switching to an electronic timesheet would allow employees to save time, provide more accessibility to time reporting, make processes more efficient, and use less paper. The Humanities and Fine Arts Dean’s Office uses printed paper timesheets and stated, “If everyone switched to an electronic time reporting system, we would save paper and people could submit their own time.” The Office of Annual Giving uses both electronic and printed paper timesheets in their office and said that they feel their office would benefit from switching to only electronic time reporting because it would make their office greener and be more efficient.

If survey respondents chose that they currently use electronic timesheets in their office, they were asked to indicate the name or type of electronic system that their office employees use to report their time worked. Current systems or programs that are used on the UMass Amherst campus include HR Direct, Kronos, PeopleSoft, Tririga Billing, TimeTracker, Qualtrics, Google Sheets, Google Forms, Microsoft Word, and Microsoft Excel. This data tells us that there are at least ten different methods for time reporting on one campus.

Beyond this data, other survey questions had inconclusive and variable responses therefore there is insufficient data to state any further results. For example, multiple respondents answered Question 6, “On average, how many pieces of 8.5 x 11 inch paper does each employee in your office print each week for time reporting?” and Question 13, “How many employees in your office are required to print these pieces of paper in order to report their time worked?” with the same answer, 25. This would mean that in one office, 25 employees each print 25 pieces of paper each week in order to report their time. It can be reasonably assumed that each employee does not print 25 pieces of paper a week for time reporting and that both questions would not generate the same exact answers, therefore these answers are assumed to be inaccurate and that the question was misunderstood. This happened for many of the survey questions causing erroneous data and results.

## Discussion

The survey had many questions that allowed open ended answers from survey respondents. Although this response format was helpful for further explanation of time reporting operations and did not constrain respondents to predefined answers, the open ended answers led to inconsistent and varied results. This created too many different answers making the data confusing and difficult to analyze in a systematic way. In order to pursue this research further, response choices and formats would need to be more clearly defined allowing for more accurate and consistent data about time reporting operations in campus offices at UMass Amherst.

The results of this survey and feedback received directly from campus offices at UMass Amherst provide information to help make a positive change on campus for more sustainable operations. From the survey results it can be concluded that switching all time reporting operations to



completely electronic would save paper that more than 95 employees, from only 11 campus offices, are required to print in order to report their time each week. With over hundreds of offices at UMass Amherst, switching all time reporting operations to completely electronic could reduce a lot of unnecessary paper usage. In addition, responses from various offices that utilize different time reporting operations provide insight into the incentives and benefits from using electronic time reporting. Each of these reasons, generated directly from campus offices, provide further persuasion for UMass Amherst to meet the needs of its employees and implement campus-wide electronic time reporting. This switch would make the campus more sustainable and help achieve UMass Amherst's sustainability priority to be a zero waste campus.

The next steps for UMass Amherst is to choose one universal electronic time reporting system that all campus offices are required to use. With at least ten different methods currently used on campus this is extremely inefficient and requires a larger learning curve for each office. The UMass Amherst Office of Human Resources should survey the campus offices about the current electronic time reporting methods in use and determine which method is the most favorable and ideal for employees. A complete campus rollout of one chosen solution should be completed simultaneously. With one universal system, the university can assist each office with training and troubleshooting and will only be required to understand and use one system. However, recognizing that there are many different labor unions on campus, one solution may not be feasible and therefore, more than one system may be necessary depending on the various labor union contracts. In addition, UMass has an advantage to switch all time reporting to completely electronic as many campus offices are already in the process of transitioning and there are various systems already used on campus that be used for electronic time reporting.

Many survey respondents felt that a universal electronic time reporting system would be the most efficient and sustainable choice for UMass Amherst. For example, when survey respondents were asked to provide any additional information or knowledge that they felt would be beneficial to this proposal, the Residential Life Student Services office representative said, "I strongly encourage working with the UMass HRD system to upgrade if possible, to get the capability for time to be swiped in at a time clock that reports to the main payroll program. If not whatever system gets implicated that it be used across the campus to avoid having several different

systems.” Survey respondents also felt that student employees should use the same time reporting operation that full time employees use. In conclusion, I propose that UMass Amherst determine the most ideal electronic time reporting solution and require that all campus offices and employees use this system in an effort to reduce paper and help meet UMass Amherst’s sustainability priority to be a zero waste campus.

## References

- Chancellor's Sustainability Advisory Council. (2017, December 14). CSAC Sustainability Integration Project: Discussion with Extended CLC. Retrieved November 23, 2018, from [https://www.umass.edu/sustainability/sites/default/files/csac\\_susty\\_priorities\\_presentation\\_clc\\_and\\_deans\\_2017.12.14.pdf](https://www.umass.edu/sustainability/sites/default/files/csac_susty_priorities_presentation_clc_and_deans_2017.12.14.pdf)
- Cieters, Y. (2018, March 2). IN-26: Innovation C: E-Procurement. Retrieved November 23, 2018, from <https://stars.aashe.org/institutions/seattle-university-wa/report/2018-03-02/IN/innovation/IN-26/>
- Kellogg, K. (2018). What is Zero Waste? Retrieved November 23, 2018, from <https://www.goingzerowaste.com/zero-waste-1/>
- O'Connor, K. J. (2014). Going Green and Using Less Paper to Print Exams: Student Performance, Completion Time, and Preference. *Teaching of Psychology*, 41(2), 155–157. <https://doi.org/10.1177/0098628314530349>
- Sakai, J. (2016, June 10). UW–Madison Receipt Reduction Project. Retrieved November 23, 2018, from <https://hub.aashe.org/browse/casestudy/15184/UW-Madison-Receipt-Reduction-Project>
- Toman, C. (2016, June 11). UW Admissions Modernization and Paper Reduction. Retrieved November 23, 2018, from <https://hub.aashe.org/browse/casestudy/15209/UW-Admissions-Modernization-and-Paper-Reduction>
- University of Massachusetts Amherst Office of Institutional Research. (2018). UMass Amherst At a Glance 2018-2019. Retrieved December 12, 2018, from [https://www.umass.edu/oir/sites/default/files/publications/glance/FS\\_gla\\_01.pdf](https://www.umass.edu/oir/sites/default/files/publications/glance/FS_gla_01.pdf)
- Urbanski, M. (2016, February 26). Migrating Paper Processes into SharePoint. Retrieved November 23, 2018, from <https://hub.aashe.org/browse/presentation/11765/migrating-paper-processes-into-sharepoint>

# Time Reporting Operations in Green Offices

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## Start of Block: Default Question Block

**Intro** This survey is being conducted by Nicole Comeau, a Green Office Fellow in the Green Office Program within Sustainable UMass at UMass Amherst for her fellowship project during the Fall 2018 semester.

She will be writing a proposal to UMass Amherst for all campus offices to switch their employee time reporting operations to electronic systems in the interest of reducing paper. Waste reduction, including paper consumption, is a top priority for the administration and the campus.

Whether your office currently uses paper methods or an electronic system, your responses are all helpful for this proposal. Thank you in advance for your time and effort!

**Expected time for this survey:** 10-15 minutes

**Confidentiality:** Your survey answers will be viewed by the Green Office Fellow conducting this survey and used as data in the proposal. All office names and email addresses will remain anonymous and will not be used in the proposal in any way. Email addresses will only be used for the Green Office Fellow conducting this survey to contact survey respondents for further clarification or explanation on survey answers if necessary. This will benefit the understanding of answers for the proposal.

**Participation:** Your participation in this survey is voluntary. You may refuse to take part in the research or exit the survey at any time without penalty.

**Questions:** If you have any questions about this survey, you can contact [umassgreenoffice@gmail.com](mailto:umassgreenoffice@gmail.com)

Clicking on the “Agree” button indicates that:

- You have read the above information
- You voluntarily agree to participate
- You are 18 years of age or older

Agree

Disagree

*Skip To: End of Survey If This survey is being conducted by Nicole Comeau, a Green Office Fellow in the Green Office Progra... = Disagree*

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Q2 What is the official name of your office?

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Q3 Are you the Eco-Leader for your Green Office?

Yes

No



Q4 What is your email address?

*Your email address will not be used in the proposal in any way. The only purpose it will serve is to be contacted for further clarification or explanation on survey answers if necessary. This will benefit the understanding of answers for the proposal.*

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Q5 In your office, how do employees report their time/hours worked?

Printed paper timesheet

Electronic timesheet

Other \_\_\_\_\_

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*Display This Question:*

*If In your office, how do employees report their time/hours worked? = Printed paper timesheet*



Q6 *You selected that employees in your office report their time worked via printed paper, if this is incorrect please go back to the previous question and change your answer.*

On average, how many pieces of 8.5 x 11 inch paper does each employee in your office print each week for time reporting?

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*Display This Question:*

*If You selected that employees in your office report their time worked via printed paper, if this is incorrect please go back to the previous question and change your answer. On average, how ma... Text Response Is Displayed*

Q13 How many employees in your office are required to print these pieces of paper in order to report their time worked?

- Please write the number of employees here: \_\_\_\_\_
- I do not know

*Display This Question:*

*If In your office, how do employees report their time/hours worked? = Electronic timesheet*

Q7 You selected that employees in your office report their time worked via an electronic timesheet, if this is incorrect please go back to the previous question and change your answer.

What is the name or type of the electronic system that your office employees use to report their time worked? Popular examples of electronic systems include, Google Sheets, TimeTracker, etc.

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*Display This Question:*

*If In your office, how do employees report their time/hours worked? = Other*

Q8 You selected that employees in your office do **not** report their time via printed paper sheets or an electronic system, if this is incorrect please go back to the previous questions and change your answer.

Please describe the method that your office uses for employees to report their time worked.

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*Display This Question:*  
*If In your office, how do employees report their time/hours worked? = Electronic timesheet*

Q11 What incentives or benefits, if any, are there from reporting time using an electronic system?

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*Display This Question:*  
*If In your office, how do employees report their time/hours worked? = Electronic timesheet*

Q15 Are there any incentives or reasons that you feel your office would benefit from switching to an electronic time reporting system?

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Q13 What do you **like** about the current time reporting system you use?

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Q14 What do you **dislike** about the current time reporting system you use?

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Q9 If you have any additional information or knowledge that your feel would be beneficial to this proposal for UMass Amherst to switch all time reporting systems to electronic, please provide them here.

Any and all comments are greatly appreciated!

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End of Block: Default Question Block

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