

Sustainability Support For Residences During Move Out

Catherine Chiaravalloti (1008103259), Jin Ming Hu (1007790400), Julia Posteraro (1008082067), Zhaopeng Zhang (1008273930)

1.0 Introduction

Institutions worldwide accommodate students and faculty members with a place to reside. At the University of Toronto, across all three campuses roughly 10 000 students and growing experience on campus living.¹ On average, these students generally produce 600 pounds of waste throughout their stay, with the move out period contributing to a large sum of this number.² At the University of Toronto St. George Campus, the move out process varies between residences but generally occurs with little direction especially regarding waste management, skipping over vital sustainability practices. Hence, Sustainability Support For Residences During Move Out's primary goal is to support residents on the UofT St. George Campus during move out to promote sustainable waste reduction and sorting methods. The project attempts to redirect the large influx of unnecessary material, clothing, furniture, and electronic waste to avenues where it can be reused and repurposed.



Figure 1: New College Residence (45 Willcocks Street, Toronto), proposed pilot for the project.

¹ Ann Perry, “‘Welcome Home’: U of T’s on-Campus Housing Offers More than a Place to Live,” University of Toronto, October 5, 2023, <https://www.utoronto.ca/news/welcome-home-u-t-s-campus-housing-offers-more-place-live#:~:text=care%20of%20me.%E2%80%9D-,Naveed%20is%20one%20of%20more%20than%2010%2C300%20students%20living%20in,university's%20first%20year%20residence%20guarantee.>

² Emily Phally, “It’s High Time That We Emphasize More Sustainable College Move-Ins,” Daily Trojan, August 31, 2023, <https://dailytrojan.com/2023/08/31/move-in-out-waste/>.

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1.1 Scope

The scope of this project encapsulates the implementation and development of a move out plan to be tested and piloted at the New College 45 Residence. With a gap in knowledge and communication to residents on effective waste management strategies during move out, the client requires the development of easily accessible resources for residents on sustainable move out strategies in addition to creating a comprehensive move-out plan for future use in residences.

1.2 Overall Goals

This project aims to facilitate a reduction and diversion of waste generated during residence move out. As such, the project's overall goal is to create the piloting process, to redirect mainly material, clothing, and furniture waste to places where it can be repurposed, as well as to reduce waste through new sustainable sorting methods. Through this, the project hopes to contribute to the normalization of sustainable practices in residences. To achieve these goals, we ask: how can the current move out system at the New College 45 residence be adapted to streamline a fully sustainable waste sorting and reduction move out plan? Also, how can we communicate the importance of waste diversion to residents to gain support and participation?

1.3 Specific Objectives

To achieve the scope and goals of the project, communication tactics, resident packages, and waste sorting procedures will all be included in a proposal for a move out plan. The proposal will comprise a new move out plan that focuses on waste reduction and sustainability within residences. Further, any equipment such as donation bins and anything else required to implement the project will be included in the proposal for implementation by the client. The move out plan is a comprehensive set of policies, rules, details, and communication tools—to be tested at the New College 45 residence—for the client to implement in the following term. It is at the client's discretion to implement the pilot plan in other residences following the completion of the capstone project.

2.0 Methodology

This section describes how and why we got our data. To provide a basis of knowledge for the proposal while answering the research questions, an extensive research process that included a literature review, student survey, and inquiry email was developed. The main purpose of the literature review was to understand what other institutions were practicing regarding move out. As such, a digital analysis of how other Canadian institutions—University of British Columbia, University of Toronto Mississauga and Scarborough, University of Waterloo, and University of Ottawa—conduct move-out, provided a foundation of understanding on the move out process, allowing for a comparison between the institutions to be made. The neighbouring University of Toronto campuses and the University of British Columbia's move out conditions revealed missing critical aspects to a successful move out. UBC has a much more developed move out system than UofT St. George; many of UBC's methods can be adapted to the New College Residence to streamline a sustainable move out. UofT's neighbouring campuses have similar

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conditions, with much more developed move out systems than the St. George campus. Further, scholarly sources on sustainability and effective waste strategies were evaluated to understand waste issues and concerns of conducting a sustainable move out plan. Both first and secondary sources from the University of Toronto Libraries website and Google Scholar were gathered to create a comprehensive literature review in which a comparison could be made to each other and the project. First-hand knowledge of universities' move out plans was obtained through direct navigation of their websites as well as by inquiries to the schools. This provided a basis of knowledge on current move out systems. Once the data was collected and analyzed, a comparison was made to see where scholars used similar methods or had differing ideas. These comparisons exposed which concepts are prevalent in a successful sustainable model as well as which concepts tend to fail.

To further our understanding, the next form of research involves collecting direct knowledge from current and past residents—allowing us to compare the research to firsthand experiences from residents. The student survey aimed to hear the voices of the students who experienced on-campus living. This methodology was a hands-on approach tailored to gather specific information pertaining to UofT St. George residences to understand what students need to achieve a successful and sustainable move-out. Therefore, to create a survey that targeted the required audiences, the question—are you a UofT St. George student who is currently or has previously lived in an on-campus residence?—aided in streamlining and filtering any unwanted results gathered in the survey. The survey was developed using Google Forms and was shared with the clients for approval before being distributed. Once the survey was approved, it was shared on social media platforms such as Instagram, Facebook, and Twitter, as well as sent to the Sustainability Office to ensure a vast number of students would interact with the survey. The survey was open for a week, after which the information was analyzed. This hands-on approach supports the project's foundation by filling in missing information from the initial research. As such, the student survey answers the first research question as it reveals the true nature of UofT's move out system.

After thoroughly reviewing these results, the perspective of staff involved in the process was still needed. To do so, inquiry emails tailored to the UofT St. George residence coordinators were developed, outlining personalized questions about specific roles and processes within move out. The email asked basic questions such as: who oversees the move out process, what is your role in the process, and are there places for large items to be donated? These questions provided a basis of understanding and allowed for a comparison between the faculty's response and that of the student's understanding. In sending the email to all residences on the St. George campus, a contrast and analysis is made between the processes at the residences. In seeing what elements are similar and different, an inference on which processes are working and which need improvement is made. In addition, an observation on which procedures are worth replicating at New College is also made. However, the response from many of the contacted staff was underwhelming. Many individuals politely declined and did not provide any further information

or research. To overcome this issue, a follow-up email further describing the nature of the course and the project's purpose resulted in New College and Woodsworth responding with answers to our inquiries. The information obtained allowed for an analysis of what students have experienced versus what the staff or institution claims about the process.

3.0 Data and Analysis

This section describes the data collected and the most important findings. The data collected is to be analyzed through a series of lenses and filtered for key terms and ideas that are prevalent across the data. As such, the literature review analyzed which methods were successful for replication and integration to our proposal. On the other hand, the student survey and the inquiry email complement the data of the literature review, allowing for a comparison of what sustainable practices look like.

3.1 Main Findings

3.1.1 Literature Review

To create a diverse plan, research into other institutions' policies and waste practices creates a solid foundation of knowledge for the project's foundation. Scholarly journals on the approaches to creating a sustainable university, common waste segregation practices to achieve sustainability, and how to engage citizens in waste collection were examined with care. Each of the following paragraphs describes a theme found in the literature review that aided in the creation of the proposal.

The idea of a sustainable campus is important in understanding how to achieve a sustainability model on a wide scale. In the literature review, a model for achieving sustainability within universities was discovered. The journal presents a sustainability model for university institutions offering “a structured framework for visualizing and achieving a sustainable university system.”³ The model is based on the foundation that university institutions are missing “a clear orientation on exactly what a sustainable university should be.”⁴ The model presented articulates the organizational structure of a sustainable university through four diverse phases—developing a sustainability vision for the university, developing a mission statement, creating policies, targets, and objectives within a sustainability committee, and implementing sustainability strategies. This journal provides insights useful in developing a sustainable move out model for the University of Toronto St. George Campus. Using the four-phase model, at UofT, a clear sustainability vision and definition must be made to the overall UofT community and specific to each campus. Currently, there is a large disconnect in the move out process between the three campuses. UofT Scarborough has a more developed move out system compared to UofT St. George. As such, clear goals should be defined before developing the

³ Luis Velazquez, Nora Munguia, Alberto Platt, and Jorge Taddei, “Sustainable University: What Can Be the Matter?” *Journal of Cleaner Production* 14, no. 9 (2006): 810.

⁴ Luis Velazquez, Nora Munguia, Alberto Platt, and Jorge Taddei, “Sustainable University: What Can Be the Matter?” *Journal of Cleaner Production* 14, no. 9 (2006): 810.

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mission statement which will convey the motivation of these goals. As of now, UofT features sustainability offices across all three campuses. However, this faculty is somewhat separated from the greater community at UofT. These offices should be utilized to achieve sustainability goals in the move out project. The University of Toronto does feature a sustainability committee, however, relating to move out, a new team of residents and dons should be implemented with specific goals of sustainability. As demonstrated, this four-phase model streamlines the move out process as the four phases develop a defined and inclusive project. As a last step in the model, sustainability requires continuous improvement—referred to as plan-do-check-act. In terms of our piloting plan, this step creates a system that normalizes sustainability as well as provides a place for improvement.

Another prevalent theme is why improper waste removal occurs and how to achieve healthier practices. In our research, we found three categories of sustainable intervention strategies—information exchange, incentives, and infrastructure improvements. Information exchange refers to verbal and written forms of communication.⁵ In regards to the move out plan, various forms of communication are essential to communicating with residents at New College. Many residents tend to skip over information-heavy emails and graphics. As such, a variety of communication forms, such as posters, infographics, and emails are needed to reach the larger community of residents. In addition, including incentives in the proposal could encourage residents to be more mindful during move out. However, as this comes with an added cost, it is not within the project's scope. As such, it is at the client's discretion to include incentives if they deem it necessary. The inclusion of donation bins and a tagging system fits the infrastructure improvement category. Combining the different interventions emphasized in the article leads to a reliable system that can increase the success of sustainable move out. Further, community engagement is a critical factor in promoting a sustainable campus as well as achieving normalized practices as it is the community that makes a sustainable campus possible. In our findings, the government of Spain implemented sustainable practices into everyday routine in Europe which inherently became a normal practice. If university campuses follow a similar notion of teaching sustainable practices within a routine, the community will naturally conform to proper sustainable practices.

3.1.2 Student Survey

The student survey was the starting point for gaining current and former residents' opinions and experiences on the move out process. The survey's goal was to paint a broad picture of what the move out process is generally like for residents while also gaining specific information and insights into the waste produced during this time. The findings revealed many concerns from residents during the move out process. Many residents claimed to feel stressed during the move out process [figure 2]. In many cases, this was a result of unclear instructions on the entirety of

⁵ Tanwi Trushna, Kavya Krishnan, Rachana Soni, Surya Singh, Madhanraj Kalyanasundaram, Kristi Sidney Annerstedt, Ashish Pathak, et al, "Interventions to Promote Household Waste Segregation: A Systematic Review," *Heliyon* 10, no. 2 (2024): e24332–e24332.

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the process. Those who were unclear on the process would have preferred more support from dons in preparation for move out [refer to appendix A]. Regarding sustainable practices, the survey exposed the degree to which residents were unclear on proper sustainability practices regarding waste. This uncertainty is possibly a display of different residence practices, demonstrating that the move out process is different for every resident hall. Even though many residents were unclear on sustainable practices, about 80% of participants revealed they would consider donating unwanted items [figure 3]. Figure 4 reveals which items residents tend to leave behind and would consider donating.

Do you or did you feel unsure/ lost with the move out process?

18 responses

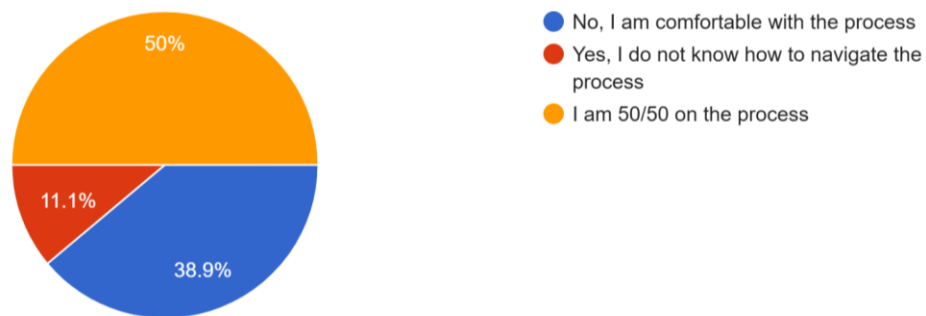


Figure 2: Results from the student survey.

Would you consider donating or repurposing any of the belongings you would otherwise discard during move out?

18 responses

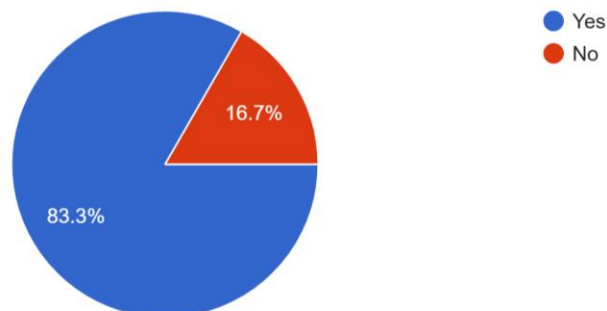


Figure 3: Results from the student survey regarding donation.

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What belongings are you most likely to leave behind during the move out process? (If any) If you are a previous resident student, what items (if any) did you leave behind?

18 responses

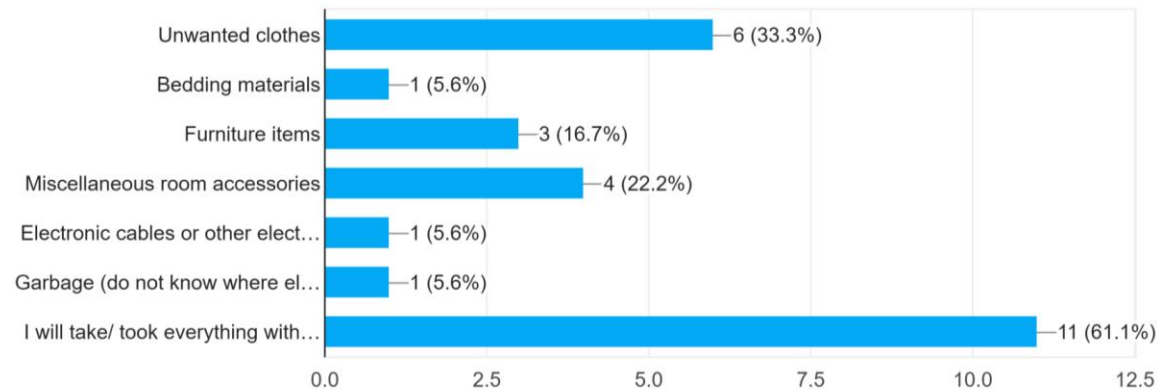


Figure 4: Student's answers to what items are left behind.

3.1.3 Inquiry Emails

To complement the data collected from the literature review and the student survey, inquiry emails were sent to all thirteen UofT St. George residences. The purpose of the emails was to gain a basic understanding of the move out procedure's structure. Based on the responses, there seems to be a differing standpoint on move out. New College claims to have no formal move out process. Their only guideline for students is to leave within their defined timeframe after their last exam and to return their key to their front desk. On the other hand, Woodsworth College claims the residence office organizes move out. It is telling that one residence claims there is no process while the other has a team dedicated to moving out. Further, both residences stated that clothing is the main form of waste left behind. The representative from New College said they recommend that students donate to local shelters but they do not have any bins to accommodate the donations. When asked if they felt the process was well staffed, Woodsworth said yes while New College said this is not applicable as they do not have a formal move out process.

3.2 Conclusions from findings

From our initial literature review, we have found that the four-phase sustainability model helps to streamline and filter the move-out process and that for a successful project, it requires continuous improvement. Further, by combining different waste strategies, communication methods, and reward incentives, the move out process can be improved in terms of community involvement and waste management. The feedback gained from the student survey revealed the extent to which students feel 'lost' or stressed during the move out process. As a result, this leads to an increase in waste generation as students are unsure of the procedures. The inquiry email provided the most shocking information. The fact that New College does not have a move out process is potentially why there is so much waste produced. Combining the methods described in the literature review with that of the student's experiences, we can make recommendations specific to the particular residence to tackle waste management.

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3.3 Gaps in Research

After completing the project's initial findings, there are still unanswered questions. For instance, the move out window's timeline varies for each resident, so how can we alter the move out guide to be effective for all students? This gap poses a challenge of when the process should be implemented. This issue can be mitigated by creating a proposed timeline for the entirety of the move out system that would only vary in its final steps for each resident [figure 5].

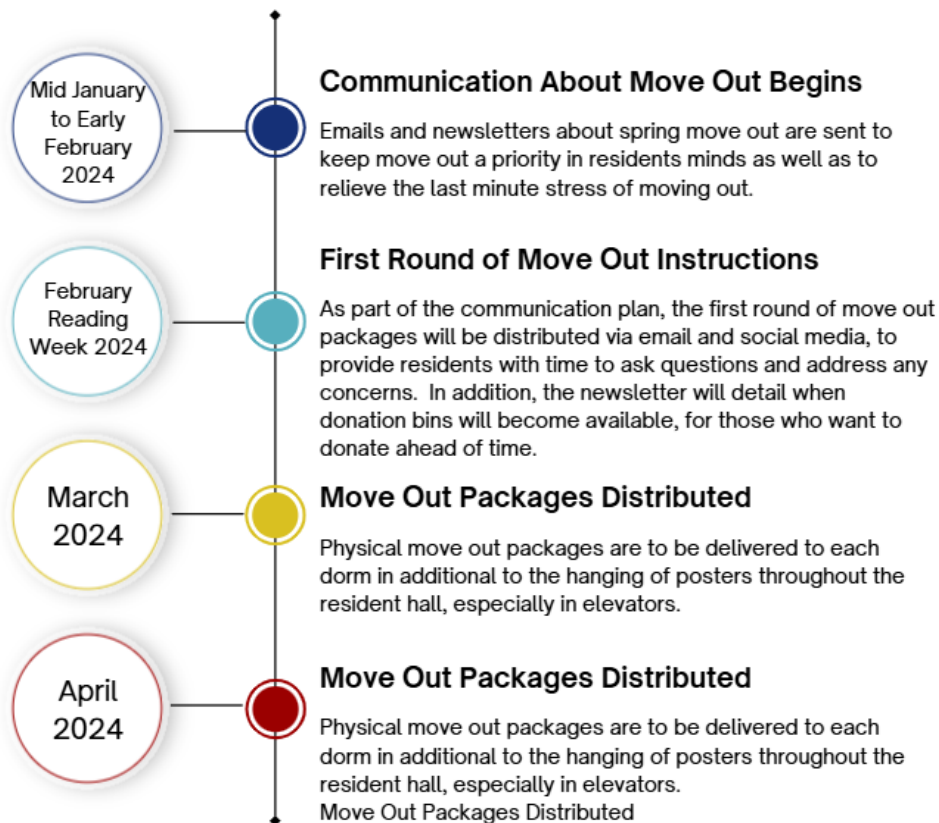


Figure 5: A proposed timeline for the implementation of the move out process.

Further, the cost associated with the project is not within the scope of our proposal and is therefore an unknown factor in the project's success. However, a mock-up of cost considerations was created based on our research findings and from talking to residences to gather an understanding of what the residences are willing to contribute to the project [refer to Appendix D]. Further, a list of items needed for the implementation of the project is also included in the proposal. As such, allowing the client to determine and make inferences about the extra costs needed to fulfill the project.

4.0 Recommendations

To simplify the move out process, based on our findings, having specific roles or jobs dedicated to move out positions will help to streamline the process. As such, perhaps having work-study positions related to monitoring move out can help to ensure the process is being followed.⁶ Further, these positions can include time slots for residents to book if they need assistance during move out. This will remove the issue of having someone on hand for the entirety of the month of move out. To further describe the proposal, the move out plan consists of a full communication plan implemented 1-2 months ahead of move out to inform residents as well as to make waste reduction during move out a priority instead of an afterthought.⁷ Detailed care packages that include a tagging system and a detailed checklist will be delivered to residents prior to the move out period.⁸ Simple but informative posters will be posted on bulletin boards, in and around elevators, on entrance doors, and on the back of bathroom stalls. In addition to emailing, these various communication methods will ensure all residents are aware of when move out is occurring and what they need to do.⁹ Further, a donation and tagging system will be introduced to reduce waste. In the tagging system, a sticker will be provided in each resident's care package. The sticker should be placed on any large-scale or bulky item that the resident wants to leave behind. This ensures a staff member is aware that this item should be donated, reducing waste. Further, donation bins will be placed next to the elevator on every floor for easy access for residents.¹⁰ In terms of general waste, during the moving period, due to time constraints, people tend to consolidate more items, which is a great challenge to the capacity of the infrastructure. We have observed that by adding garbage cans or recycling bins to elevators and exits, we can increase convenience and encourage students to separate their waste and recycle more efficiently.¹¹ The detailed care packages also include an infographic on which bins garbage belongs in [figure 6].

⁶ Luis Velazquez, Nora Munguia, Alberto Platt, and Jorge Taddei, "Sustainable University: What Can Be the Matter?" *Journal of Cleaner Production* 14, no. 9 (2006).

⁷ Luis Velazquez, Nora Munguia, Alberto Platt, and Jorge Taddei, "Sustainable University: What Can Be the Matter?" *Journal of Cleaner Production* 14, no. 9 (2006).

⁸ "Moving Out," Moving Out | Student Housing & Residence Life, Accessed September 25, 2024, <https://www.utoronto.ca/residences/moving-out>.

⁹ Tanwi Trushna, Kavya Krishnan, Rachana Soni, Surya Singh, Madhanraj Kalyanasundaram, Kristi Sidney Annerstedt, Ashish Pathak, et al, "Interventions to Promote Household Waste Segregation: A Systematic Review," *Heliyon* 10, no. 2 (2024): e24332–e24332.

¹⁰ The University of British Columbia, "Mindful Move Out," Mindful Moveout, Accessed September 30, 2024. <https://vancouver.housing.ubc.ca/residence-life/moving-out/>.

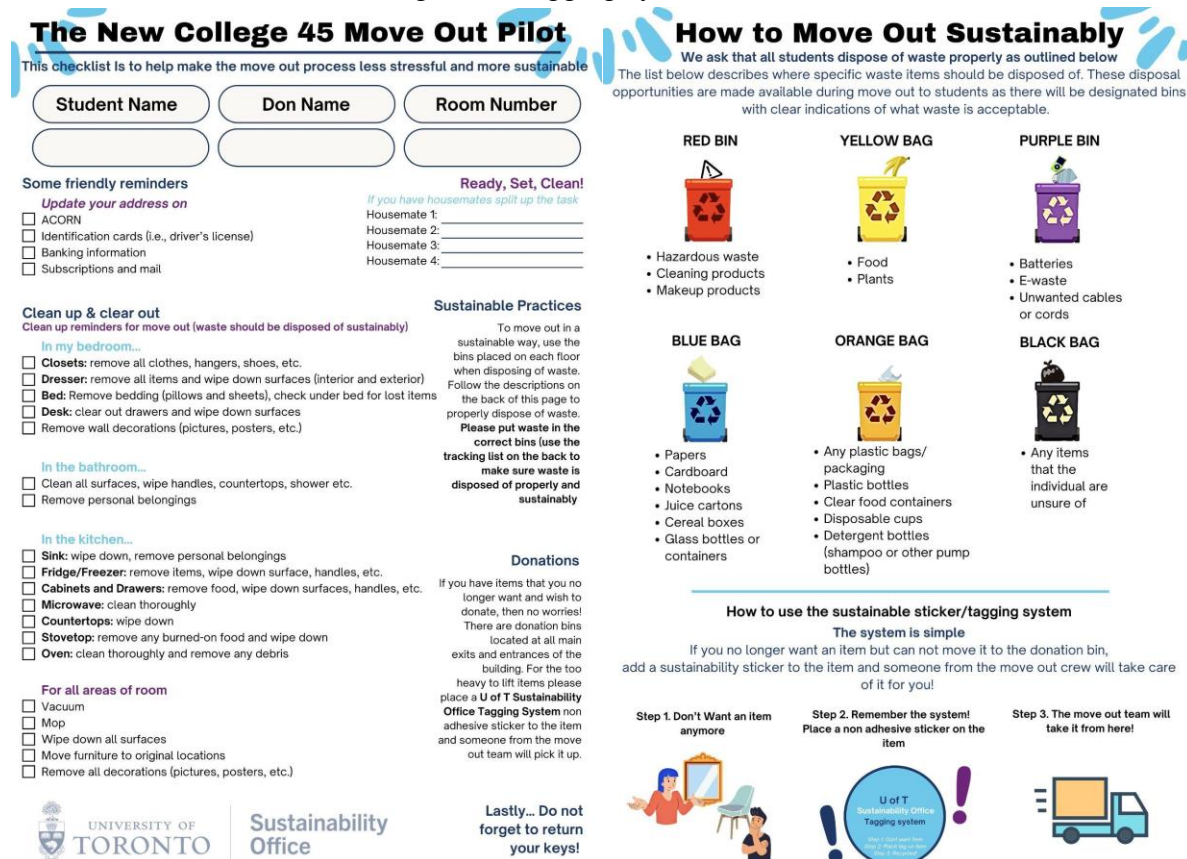
¹¹ Tanwi Trushna, Kavya Krishnan, Rachana Soni, Surya Singh, Madhanraj Kalyanasundaram, Kristi Sidney Annerstedt, Ashish Pathak, et al, "Interventions to Promote Household Waste Segregation: A Systematic Review," *Heliyon* 10, no. 2 (2024): e24332–e24332.

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Figure 5: Tagging system sticker.



The New College 45 Move Out Pilot

This checklist is to help make the move out process less stressful and more sustainable.

Student Name **Don Name** **Room Number**

Some friendly reminders

Update your address on

- ☐ ACORN
- ☐ Identification cards (i.e., driver's license)
- ☐ Banking information
- ☐ Subscriptions and mail

Clean up & clear out

In my bedroom...

- ☐ **Closets:** remove all clothes, hangers, shoes, etc.
- ☐ **Dresser:** remove all items and wipe down surfaces (interior and exterior)
- ☐ **Bed:** Remove bedding (pillows and sheets), check under bed for lost items
- ☐ **Desk:** clear out drawers and wipe down surfaces
- ☐ Remove wall decorations (pictures, posters, etc.)

In the bathroom...

- ☐ Clean all surfaces, wipe handles, countertops, shower etc.
- ☐ Remove personal belongings

In the kitchen...

- ☐ **Sink:** wipe down, remove personal belongings
- ☐ **Fridge/Freezer:** remove items, wipe down surface, handles, etc.
- ☐ **Cabinets and Drawers:** remove food, wipe down surfaces, handles, etc.
- ☐ **Microwave:** clean thoroughly
- ☐ **Countertops:** wipe down
- ☐ **Stovetop:** remove any burned-on food and wipe down
- ☐ **Oven:** clean thoroughly and remove any debris

For all areas of room

- ☐ Vacuum
- ☐ Mop
- ☐ Wipe down all surfaces
- ☐ Move furniture to original locations
- ☐ Remove all decorations (pictures, posters, etc.)

Ready, Set, Clean!

If you have housemates split up the task.

Housemate 1: _____
Housemate 2: _____
Housemate 3: _____
Housemate 4: _____

Sustainable Practices

To move out in a sustainable way, use the bins placed on each floor when disposing of waste. Follow the descriptions on the back of this page to properly dispose of waste. **Please put waste in the correct bins (use the tracking list on the back to make sure waste is disposed of properly and sustainably)**




Donations




If you have items that you no longer want and wish to donate, then no worries! There are donation bins located at all main exits and entrances of the building. For the too heavy to lift items please place a U of T Sustainability Office Tagging System non adhesive sticker to the item and someone from the move out team will pick it up.

Lastly... Do not forget to return your keys!

How to Move Out Sustainably

We ask that all students dispose of waste properly as outlined below. The list below describes where specific waste items should be disposed of. These disposal opportunities are made available during move out to students as there will be designated bins with clear indications of what waste is acceptable.

RED BIN	YELLOW BAG	PURPLE BIN
 <ul style="list-style-type: none">Hazardous wasteCleaning productsMakeup products	 <ul style="list-style-type: none">FoodPlants	 <ul style="list-style-type: none">BatteriesE-wasteUnwanted cables or cords

BLUE BAG	ORANGE BAG	BLACK BAG
 <ul style="list-style-type: none">PapersCardboardNotebooksJuice cartonsCereal boxesGlass bottles or containers	 <ul style="list-style-type: none">Any plastic bags/packagingPlastic bottlesClear food containersDisposable cupsDetergent bottles (shampoo or other pump bottles)	 <ul style="list-style-type: none">Any items that the individual are unsure of

How to use the sustainable sticker/tagging system

The system is simple

If you no longer want an item but can not move it to the donation bin, add a sustainability sticker to the item and someone from the move out crew will take care of it for you!

Step 1. Don't Want an item anymore

Step 2. Remember the system! Place a non adhesive sticker on the item

Step 3. The move out team will take it from here!

U of T Sustainability Office Tagging system

Figure 6: Care Package includes checklist, infographic, and instructions on the tagging system.

5.0 Conclusion

The Sustainability Support For Residences During Move Out project aims to enhance the move out process on the UofT St. George Campus by promoting sustainable waste reduction and sorting methods, with a focus on the New College 45 Residence. The proposal includes creating a sustainable move out plan that seeks to reduce unnecessary waste and facilitate the reuse of materials through improved communication strategies and resources for residents. A comprehensive plan implemented at New College 45 incorporates donation bins and a tagging system. The extensive research conducted through a literature review and multiple surveys helps to understand resident participation and what infrastructure is needed, all elements to ensure the project's success.

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6.0 Appendices

6.1 Appendix A - Student Survey Results

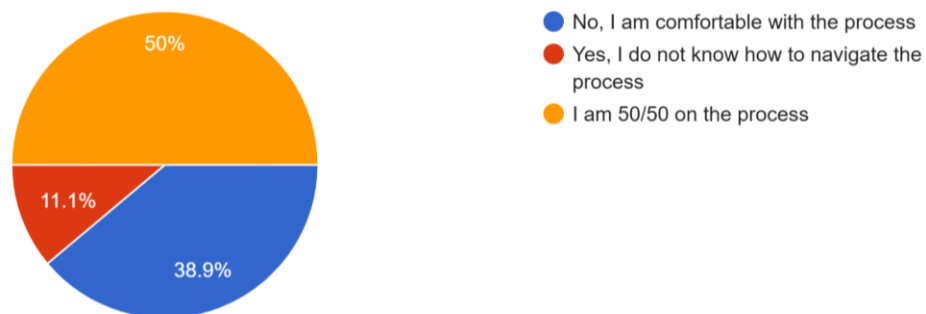
Are you a UofT St. George student who is currently or has previously lived in on-campus residence?

18 responses



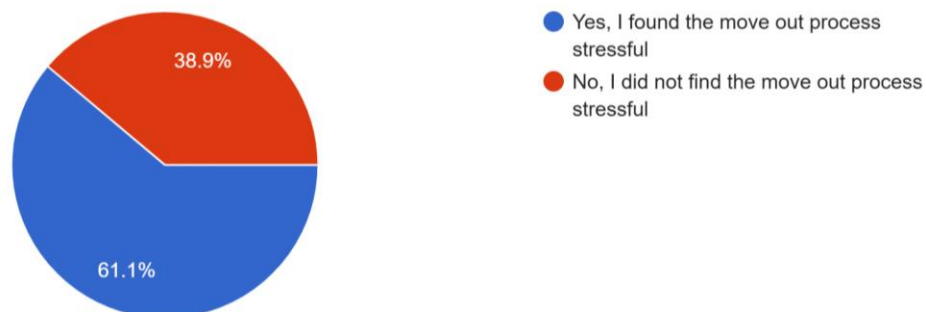
Do you or did you feel unsure/ lost with the move out process?

18 responses



Do you or did you find the move out process stressful?

18 responses

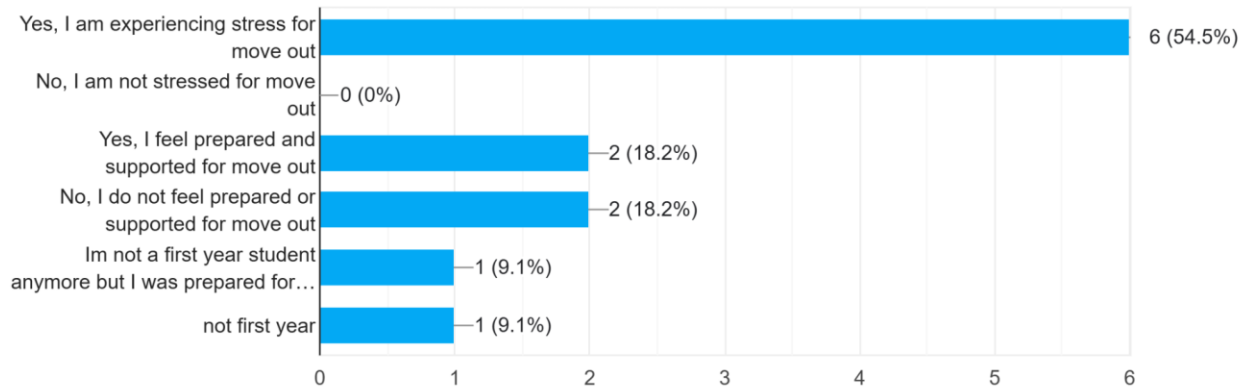


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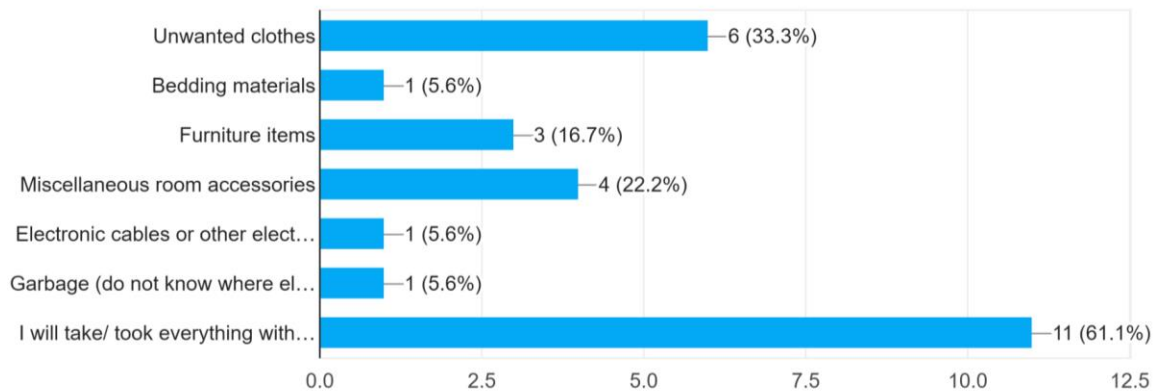
If you are a first year student, are you experiencing stress for this first move out? Do you feel prepared and supported in the move out process?

11 responses



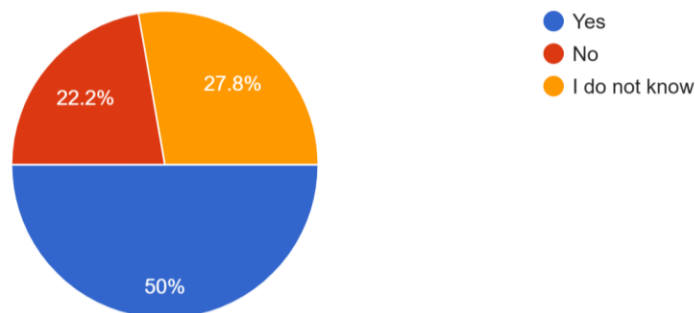
What belongings are you most likely to leave behind during the move out process? (If any) If you are a previous resident student, what items (if any) did you leave behind?

18 responses



Are there clear opportunities for waste to be disposed of efficiently and environmentally?

18 responses

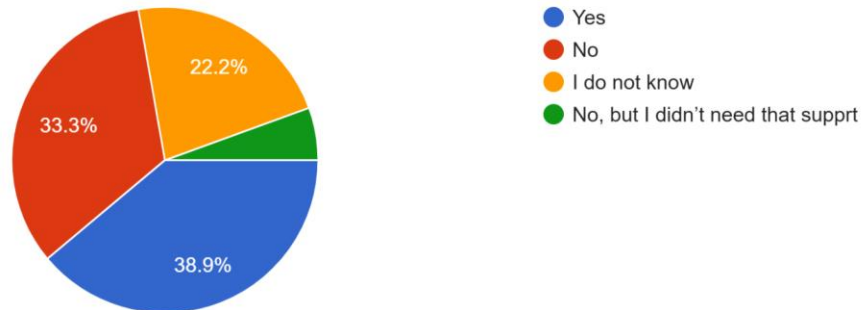


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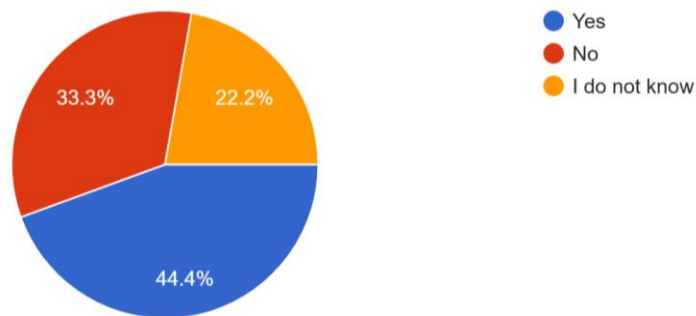
Do you or did you have a supervisor/ residence don available to you on move out day for assistance if needed?

18 responses



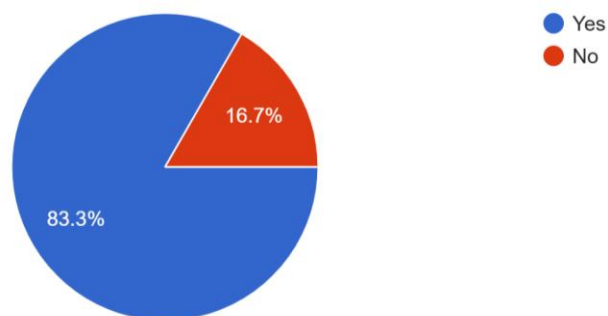
Do you or did you feel there is enough information provided to you prior to your move out date to help prepare for move out?

18 responses



Would you consider donating or repurposing any of the belongings you would otherwise discard during move out?

18 responses

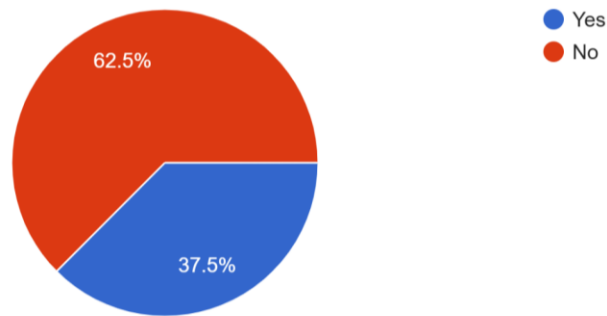


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If so, would you know how or where to donate?

16 responses



Are there any concerns not listed above that you wish to share?

3 responses

Generally lack of support from the dons while moving out, they didn't check in on me once or speak to me I just left

None

My residence does not have a clear recycling program. There is recycling on some floors/residence areas, but it is unclear if this waste is actually recycled. Recycling is the bare minimum and should be easy for students during the move out process and through out the year.

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6.2 Appendix B - Inquiry Email Responses

The following text is a template for the inquiry email:

Good Morning to whom this message may concern,

I hope all is well.

This email has been curated to further analyze the move out process at the University of Toronto St. George Campus as part of the Campus Living Lab course (ENV461). The focus of this project is to develop a thoughtful move out system, with a goal to minimize waste generation through the development of resources that will enable students to sustainably move out. As such, our project proposes a pilot plan at the New College 45 residence to test the effectiveness of our proposal. To achieve a successful and sustainable move out, an understanding of how waste is disposed of is critical for the furthering research of the process.

As such, we believe that the following questions are crucial in furthering our understanding of the processes behind waste management on the St. George Campus. We would like to learn more about the main issues students face when moving so that we can develop a support program that better meets their needs.

Questions:

1. What is your role in the move out process?
2. Who is responsible for implementation of the move out process?
3. What difficulties or problems usually arise during the move out process (if any)?
For example, lack of space, lack of tools and resources, etc.
4. What is the protocol for large scale items that students leave behind?
5. Does the school provide a place for items to be donated or recycled? Are you aware if students are interested in donating any items?
6. What are the main types of waste generated when students move out? (furniture, clothing, electronics etc.) Do they have any specific needs in terms of how these wastes are disposed of?
7. Do you feel the move out process requires more staff help than is currently provided? If so, would you be interested in having curated positions tailored to the move out process?

We thank you for taking the time to read and respond to our email. Please let us know if you have any questions or concerns regarding our project, we would be happy to answer them.

Thank you,

Name on behalf of the move out team.

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New College Response:

Hi Julia,

Thanks for passing along this information.

Here's what I can share with you:

1. What is your role in the move out process?

My office is primarily responsible for checking rooms after a student's given moveout date to ensure that they have vacated the space. Beyond that, cleaning the room or removing any leftover items is the responsibility of the facilities staff, who are not directly connected to my office.

2. Who is responsible for implementation of the move out process?

There is no formal move out process at New College. Students are required to leave within a defined time after their final exam/assessment, or the last date outlined in the occupancy agreement. Students pack their belongings, move out of residence, and turn in their keys at the front desk.

3. What difficulties or problems usually arise during the move out process (if any)?
For example, lack of space, lack of tools and resources, etc.

N/A

4. What is the protocol for large scale items that students leave behind?

Unfortunately as my office is not in charge of managing any items left behind by students, I'm unaware of what they truly leave behind. That being said, some general things I can say are:

I know anecdotally, it's generally clothing and bedding left behind as that's what I've observed in the hallways

Students don't have private kitchens, so I'd imagine they generally aren't leaving around a ton of appliances

Generally, students don't leave behind electronics

5. Does the school provide a place for items to be donated or recycled? Are you aware if students are interested in donating any items?

FreeStore just opened (Sustainability Office)

Unaware if students interested in donating

6. What are the main types of waste generated when students move out? (furniture, clothing, electronics etc.) Do they have any specific needs in terms of how these wastes are disposed of?

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See above (question 4)

We do recommend that students donate to local shelters, etc. however we do not provide a specific bin/process in residence to accommodate this. We have in the past partnered with external organizations to collect donations, however, they were not great at picking up the donations regularly so we stopped partnering with them as a college.

7. Do you feel the move out process requires more staff help than is currently provided? If so, would you be interested in having curated positions tailored to the move out process?

Given that we do not have a formal move out process/day, this is not applicable.

Please let me know if you have further questions or concerns.

Best, Manager of Residence Life

Woodsworth College Response:

Hello Julia,

Please find our responses below:

Questions:

1. What is your role in the move out process?

Woodsworth College Residence Office organizes move out.

2. Who is responsible for implementation of the move out process?

Woodsworth College Residence Office staff.

3. What difficulties or problems usually arise during the move out process (if any)?
For example, lack of space, lack of tools and resources, etc.

None.

4. What is the protocol for large scale items that students leave behind?

The University of Toronto has a recycling program which we participate in.

5. Does the school provide a place for items to be donated or recycled? Are you aware if students are interested in donating any items?

The University of Toronto has a recycling program. We also participate in University run donation drives.

6. What are the main types of waste generated when students move out? (furniture, clothing, electronics etc.) Do they have any specific needs in terms of how these wastes are disposed of?

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Clothing and food are the main types of waste generated. We follow University of Toronto recycling and waste protocols.

7. Do you feel the move out process requires more staff help than is currently provided? If so, would you be interested in having curated positions tailored to the move out process?

No, the process is well staffed.

Thank you, Residence Staff

Based on feedback from New College and Woodsworth College, there are differences in the standardization of the move-out process and the way it is implemented. New College does not have a formal move out process, and the handling of left-behind items is mainly handled by the facilities department. Common left-behind items are clothing and bedding, but there is a lack of systematic mechanisms for donating or recycling them. Woodsworth College, on the other hand, has a move out process that is centrally managed by the Residence Halls Office, which participates in the University's recycling and donation campaigns. The main items left behind are clothing and food. The need for additional manpower needs to be investigated in more detail for all residences. Overall, the current situation at both colleges suggests the potential for a unified donation and recycling system in the move out process to further reduce waste and increase sustainability.

6.3 Appendix C - Visual Communication Deliverables

The following link provides access to the canva file for the detailed care packages:

https://www.canva.com/design/DAGTqLAfSng/JLNgMu2--cv3rq29SPV9KQ/edit?utm_content=DAGTqLAfSng&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton.

6.4 Appendix D - Sample Cost Mock-up Table

Table D. Mock up of cost considerations for the proposal.

Item	Description	Approx. price each(if required)
Donation bins	For donation purposes, at each exit of the building	\$1000
Trash bins	Black bags or bins for garbage	\$30
Recycle bins	Blue bins	\$20
Battery bins	To recycle batteries	\$20
Eco-Friendly labels	Tags that can be recycled	\$5
Posters	Checklist and announcements	\$18 per 100 pages
Staff	To train volunteers	N/A
Reward Incentives	i.e. gift cards	

Based on the survey sample data with 18 responses to a population of around 600 in residence, an advanced statistical model (Binomial+Beta) was used to calculate estimates for each category. The result shows that there is no significant preference for leaving behind specific items as the p-value = 0.171 within a relatively reliable stage.

The result (rounded) shows that there are estimated 210 individuals would like to donate unwanted clothes and 150 residents would like to donate miscellaneous room accessories. We should prepare at least 5 large bins for each and place them by different exits. Although only 60 individuals are likely to leave behind electronic items, we should prepare at least 1 e-waste bin to capture these wastes and give them a second life, same for the bedding materials.

Furniture items are mostly large and hard to move. And according to the survey there are likely 120 students who would like to donate. Therefore, instead of accommodating these wastes by bins, it's better to set up an area, or let students put recyclable stickers on them, and workers will collect the ones with stickers.