Reducing Wait Times and Wait Lines at the AMS Foodbank

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1. Executive Summary

The key issue: The Alma Mater Society (AMS) Food Bank at the University of British Columbia (UBC) faces an unprecedented demand in its services, reflective of a broader national trend of increased food insecurity across Canada. This has led to longer queues and wait times, which the foodbank users (clients) find uncomfortable and dehumanizing.

The study and its analysis: This study seeks to understand the scale of operational challenges paused by this increase in demand. It uses Six Sigma and Lean methodologies, structured around the DMAIC (Define, Measure, Analyse, Improve, Control) model. To ensure a targeted and effective analysis, the study operates under two assumptions: that volunteer shifts are at full capacity, and that the primary data collection constrained to the peak times (12pm – 3pm) can be generalized to improve the whole operational efficiency since that's the time with observed longest queues and wait times.

Key results and recommendations: The study identifies the produce service table to be the main bottleneck and highlights non-value adding activities such as bagging and chatting as sources of waste (muda). Using Little's Law, the study concludes that the foodbank is operating efficiently, under the assumptions above, and that the queues and wait times result from clients lining up before the foodbank's opening. It recommends banning wait lines, creating an appointment system, and 5 lean improvement methods that maintain operation efficiency.

2. Define: rise in food insecurity & the resulting operational project

2.1. Introduction

The AMS Food Bank provides students with food items and hygiene products. Items are either purchased by AMS or others donated by various community partners. The Food Bank has experienced a significant rise in usership, leading to increasing waiting times and longer wait lines in the first months of the 2023/24 academic year.

This operations study analyzes the AMS Food Bank's client's process flow and suggests strategies for improvement to eliminate queues and wait times. The recommendations are informed by Six sigma and lean analysis along with other operations models. The report structure follows the DMAIC model—also a Six-sigma tool.

2.2. Context: Rise in food insecurity & the resulting 3 operational challenges

There is a rise in food insecurity across Canada[1]. This rise is attributed to factors such as inflation, increased cost of living, and specific vulnerabilities among certain demographic groups such as students. Student populations are among the most impacted, notably in cities like Vancouver where the cost of living has shot up in the past few years.

[1] https://www150.statcan.gc.ca/n1/pub/75-006-x/2023001/article/00013-eng.htm

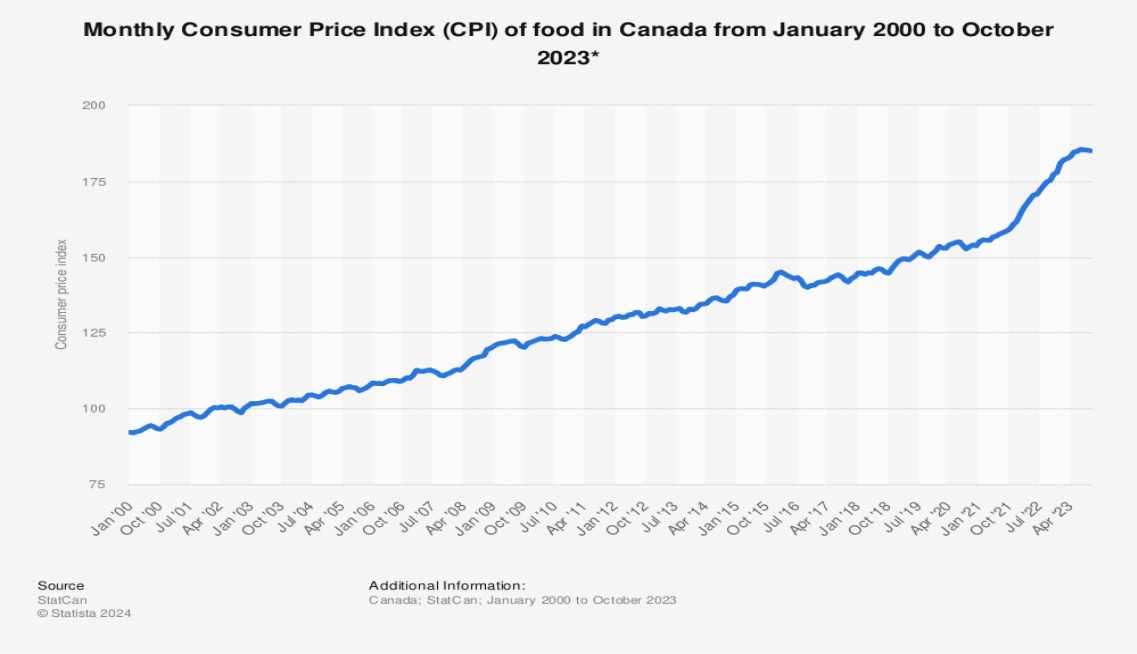


Figure 1: Monthly consumer Price Index of food in Canada, from January 2000 to October 2023
Published by M. Shahbandeh, Feb 15, 2024

"The consumer price index of food in Canada has generally increased since 2000. The base year 2002 equals 100 and after that year, the price index stayed over 100 and increased each year until ultimately reaching a high of 185.5 in July 2023. Since then, the index has slowly decreased to 185 in October 2023."—Statista[2]

The AMS Foodbank aims to address food insecurity exclusively for UBC students and their dependants by providing easy to access non-perishable food items, some produce and limited pre-packaged meals.

First operational challenge: Due to the increasing food insecurity, the AMS Foodbank is faced with unprecedented increase in demand. According to the AMS staff, the number of AMS Foodbank clients has risen by 67% from last year (2023) and is projected to exceed 2300 visits just by the end of April. According to the staff, the foodbank has had the highest number of clients served in a single day on Thursday, March 7th, a total of 507 clients. According to staff, the foodbank's size and operational capacity struggles to keep up with this demand.

[2] StatCan. (December 7, 2023). Monthly Consumer Price Index (CPI) of food in Canada from January 2000 to October 2023* [Graph]. In *Statista*. Retrieved March 19, 2024, from https://www.statista.com/statistics/1331384/monthly-cpi-of-food-in-canada/

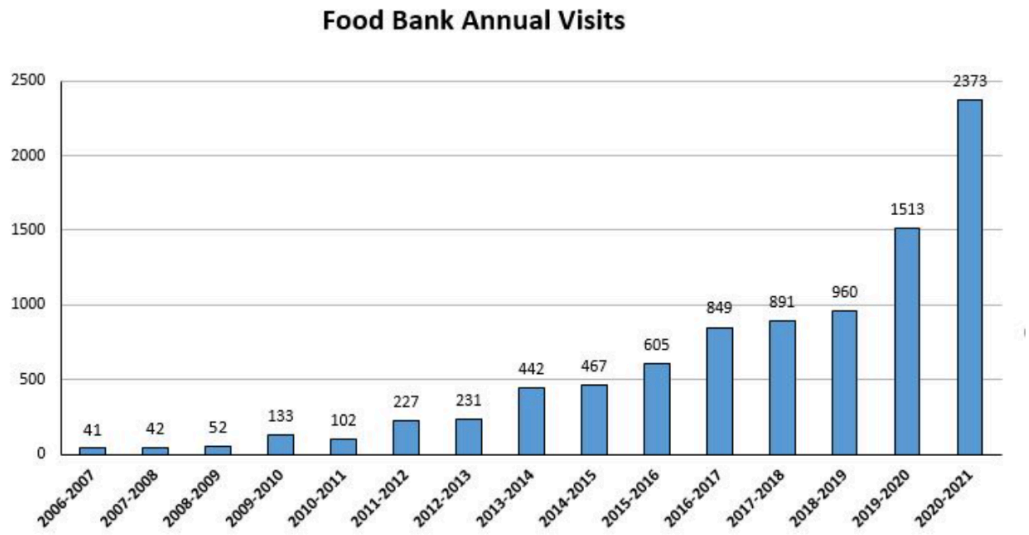


Figure 2: Number of visits for each academic year (May 1-April 30) to AMS foodbank between 2006-2021
Source: AMS Website, Using the Foodbank[3]

Staff members estimate that clients spend about 5min in the foodbank, but throughput time (amount of time clients spend in the process) and processing time (amount of time clients spend at each service table) have never been recorded.

Second operational challenge: Clients experience long queues and wait times which they perceive as dehumanizing, especially when they can be seen by friends or other students. During operational hours, peak times tend to be 12pm-3pm, with queues starting to form between 10.30 am and 11am, 60 to 90 minutes before the foodbank is open. (See queue structure on *Figure 3*, Section 3.1.) Reported wait times range from 30 to 40 minutes.

The AMS foodbank operates on Mondays and Thursdays, 12pm-7pm. Staff and volunteers stock it a day before, on Sundays and Wednesdays between 11am and 1pm. There are 4 permanent staff and a volunteer pool of about 100 UBC students. Volunteers work in shifts of 1-2 hours during which they facilitate client check-in, table service, restocking tables from the inventory of items in the foodbank, and restocking the foodbank from inventory of donated or purchased items stored outside the foodbank. Each hour of operations needs up to 7 volunteers and at least 1 staff.

Third operational challenge: volunteer turnout is variable and only confirmed upon arrival. Some shifts are understaffed, which slows down the operation.

[3] https://www.ams.ubc.ca/support-services/student-services/food-bank/using-the-food-bank/

2.3. Scope of the study & Assumptions

The scope of this report is limited to the second operational challenge, reducing wait lines and wait times. The report also makes two important assumptions:

- Due to limited (researcher) availability and complexity of correcting data on volunteers and their performance (resource utilization), this report assumes maximum capacity and fully staffed volunteer shifts on the foodbank operation days.
- Because of limited (researcher) availability, and since queues and wait times exist mainly between 12pm (when the food bank opens) and 3pm, the raw data of this study was collected only on those times at various days of operations. The study assumes that by maximizing operational efficiency to reduce/eliminate queues & wait times during these times effectively eliminates queues and wait for all other times of operation.

These two assumptions reduce the scope of the study to researching and analysing processing times for clients, process flow and service-inventory buildup during 12pm-3pm on days of operation.

3. Measure: process flow, throughput rate, processing time, service-inventory build up

3.1. Process flow/map

The flow of clients through the foodbank is mostly linear. The check in table staff/volunteer rings a bell (process trigger) which signals the next client in line to enter the foodbank (enter the process). The client's first stop is the check in table, where they present their UBC ID Card, its photo or a UBC Student Service Centre (SSC) profile. Once their identity is confirmed and their student number is registered, they are asked if their accessing the foodbank as an individual or they have dependents. This is a trust-based approach, and volunteers do not request/require any further verification. Individuals are given blue card with letter "I" and those with dependents an orange card with letter "F". They show this card to volunteers at various service tables, who then tailor the quantity of items they can obtain to whether they have dependents ("F") or not ("I") (See Appendix 2). **The staff maintain a maximum of 4 clients in the process**.

If client is a first-time user, the check-in table staff/volunteer provides them with detailed information on the foodbank's use, including what items and how much they can access either as individuals or as students with a dependent(s). From the check in table, the client visits each of the service table that has the desired items (*Figure 3*). They drop off the cards at the resource table, and they can either spend some time browsing through the resources or simply exit the foodbank, effectively exiting the process. Below is a foodbank map and process map that summarize the client journey through the foodbank.

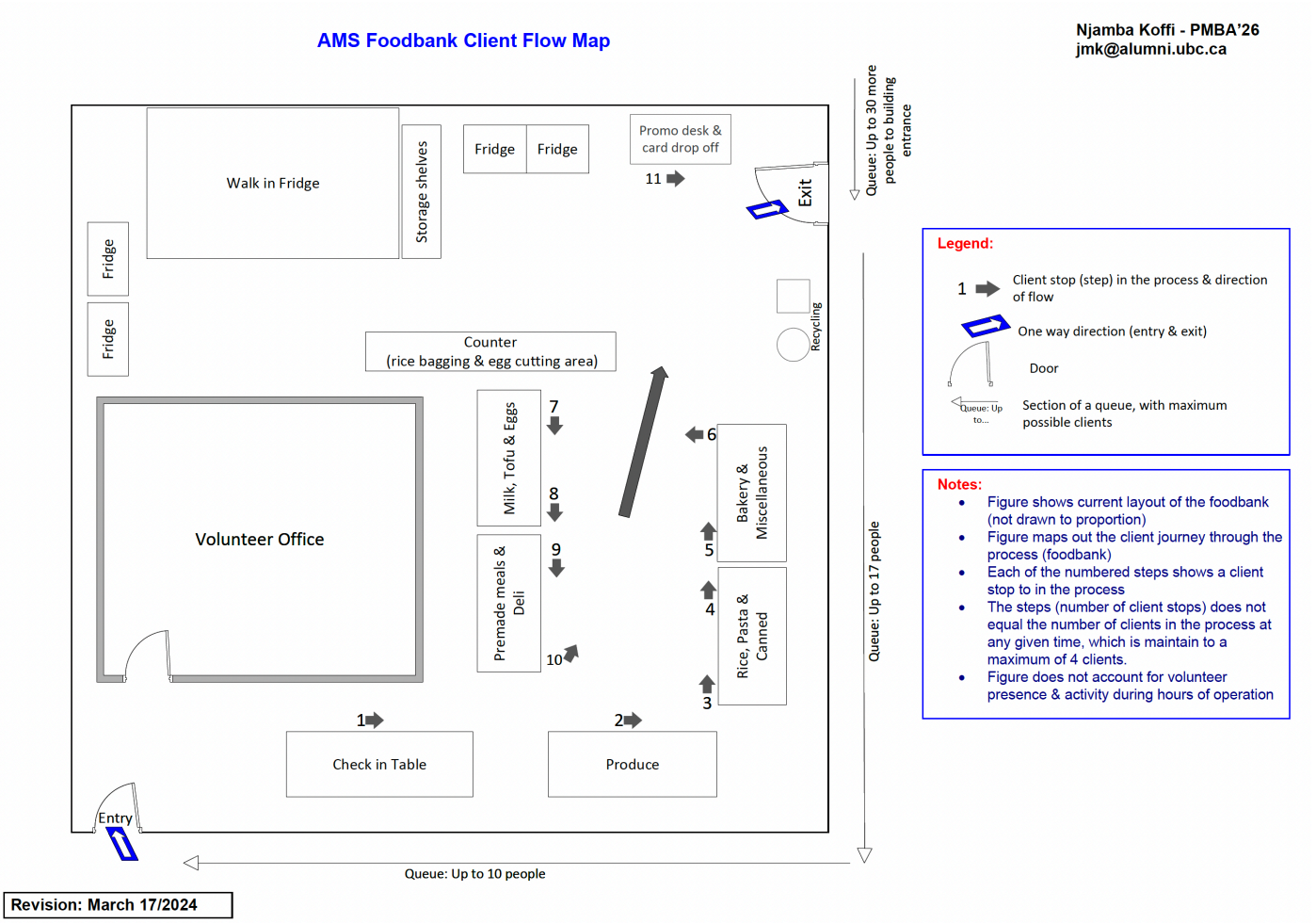


Figure 3: Foodbank client flow map

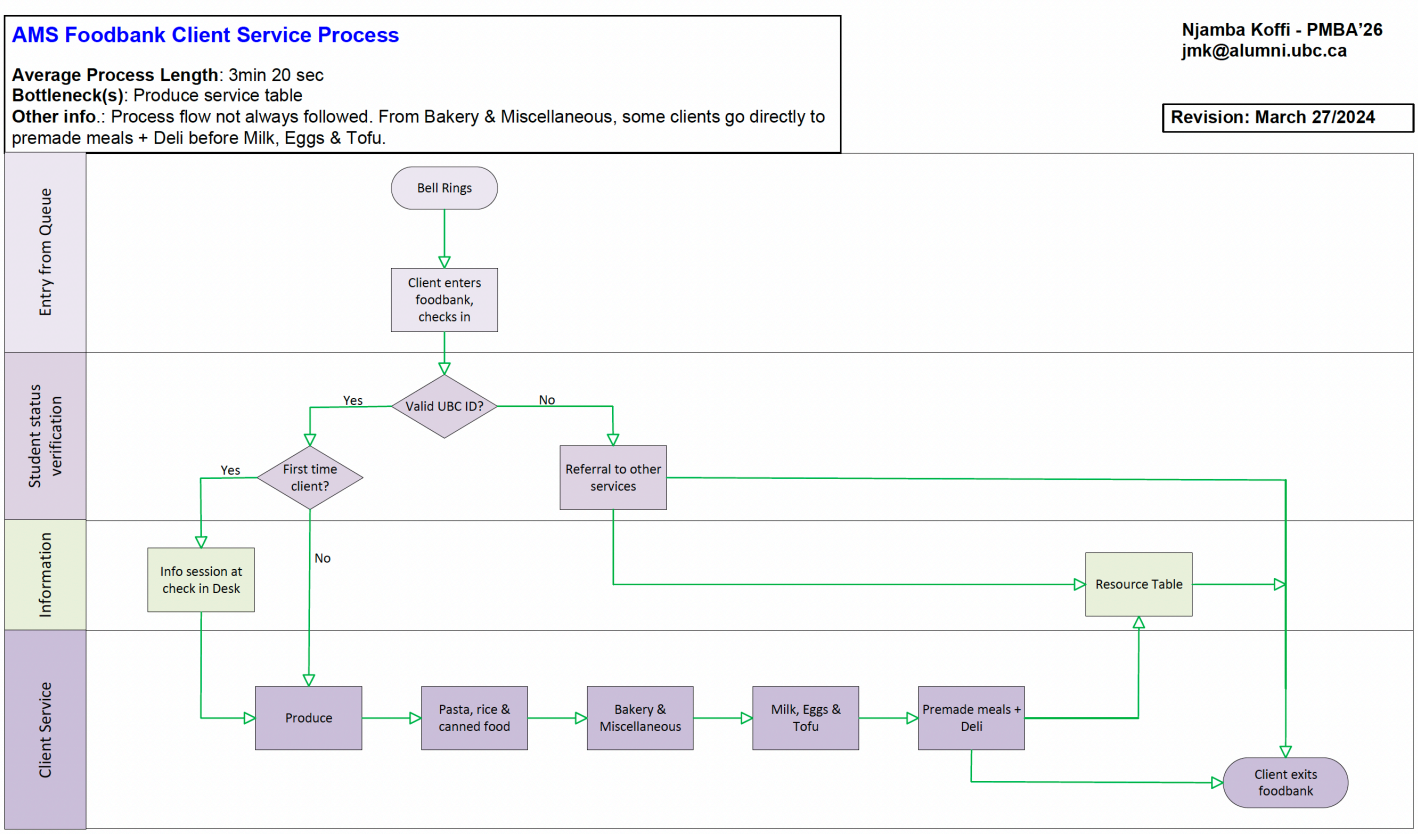


Figure 4: Clients' process map

3.2. Throughput time & processing time

There is a significant variability in both the throughput time (time a client spends in the process, from entry to exit) and the processing time (amount of time it takes each service table in the foodbank to serve a client). Below are highlights from the random sampling of 34 clients going through the process over 2 different data collection days.

Measured	Shortest time	Longest time	Average time
Throughput time	1min 29 sec	6min 48 sec	3min 20 sec
Processing time	0 min	2min 20 sec	34 sec

Table 1: Throughput time & processing time highlights

The graphs provided in the section 4.1 to 4.3 provide more detailed data for processing time, throughput time and inventory buildup.

3.3. Service-inventory build-up

Generally, the number of people waiting in the line seems to be highest when the foodbank opens. The wait lines observed in 15min intervals over a period of 2hrs45min, from 11:45 to 2:30pm had some fluctuation, but showed a general decreasing trend. The staff remarked that the line on the day of the observation seemed unusually shorter compared to similar times in the preceding weeks.

4. Analyze: What the data shows

4.1. Bottlenecks

The main bottleneck in the process appears to be the produce service table, having the longest processing time. It is the only table without a volunteer distributing items. That client get to serve themselves and choose desired items might be contributing to longer processing times at this table.

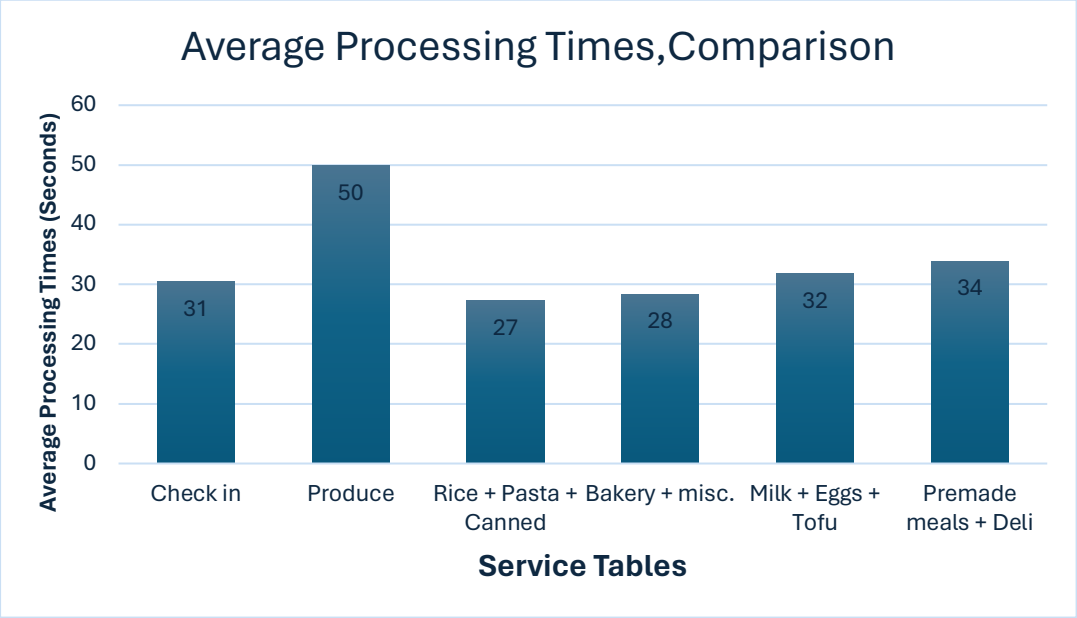


Figure 5: Side-by-side comparison of average processing times at different service tables

The staff observation that longer wait times and lines tend to be between the first 2-3hrs of operation is supported by data, which demonstrates the throughput time trends downwards between 12-3pm. Some foodbank items (for example, pre-made meals and some produce) finish within those first 2-3hrs of the operation and are not restocked right away, which might explain the trend because as more people go through the process, they have fewer choices to make hence relatively faster processing time.

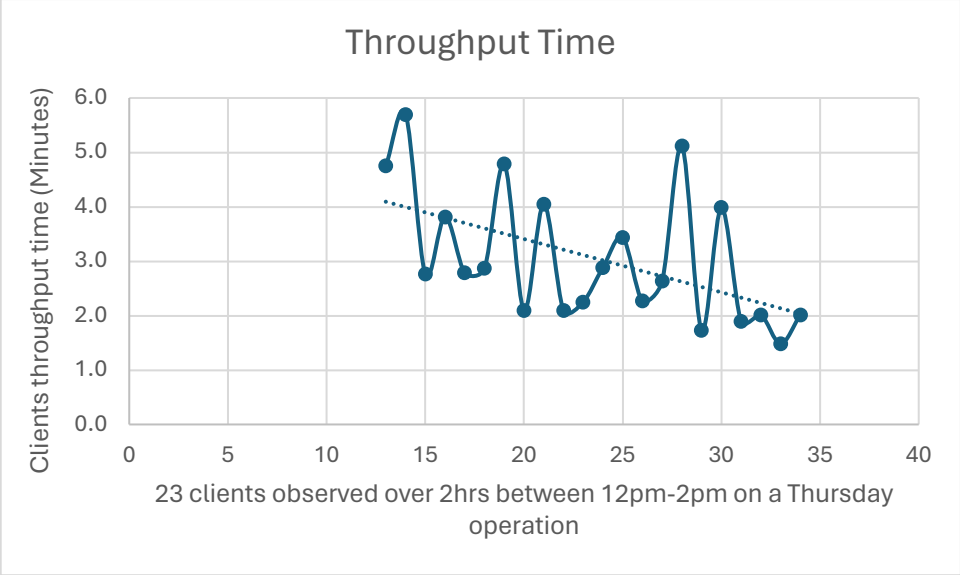


Figure 6: Clients' throughput time between 12-2pm on one day of operations

The downward trend highlighted above also directly correlates to the downward trend of the service-inventory (wait lines), suggesting that the faster the average throughput, the quicker the lines dissolve.

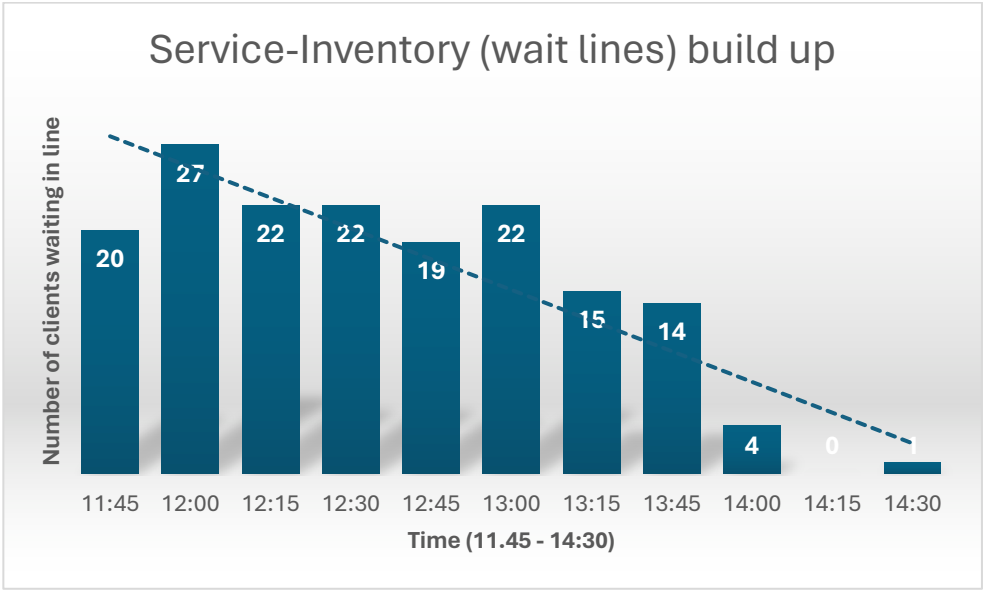


Figure 7: Clients waiting in line over a period of 2hrs 45min, from 11.45 a.m on one day of operations.

4.2. Qualitative data: non-value-adding activities causing waste (muda)

The throughput time, as measured, is different from cycle time (total time a client spends at the tables being served). Cycle times give us only the value-added time. The difference between throughput time and cycle time gives us the non-value-adding time which is waste (muda in Six Sigma and Lean terminology). Although not measured, waste was observed at various service tables, and it results from the following activities:

- Bagging—some individuals take time to stop at the service tables and arrange the items, hence blocking the tables.
- Chatting—some individuals slow down the process because they are chatting while at, or in between, the service tables.
- Volunteers restocking tables—especially when there are clients in the process who are waiting for items that are being restocked.

4.3. Process analysis: Starved and blocked service tables

There is a significant variability in the times clients spend at each service table, largely because of the non-value adding activities identified above. This indicates that, inevitably, some tables are *blocked* while others are *starved*. A service table is *blocked* when a client can't move to the next service table after getting service because the next service table is still being used, and it is *starved* when it is idle and waiting to receive the next client. The latter happens when the client in the previous service table is taking too long. The blocked and starved tables reduce the rate of utilization (the fraction of time that a table is actively used to serve a client), hence increasing the average throughput time to the 3min 20 sec shown in section 3.2. The following box plot shows variability in processing times, which might likely result in tables being starved or blocked.

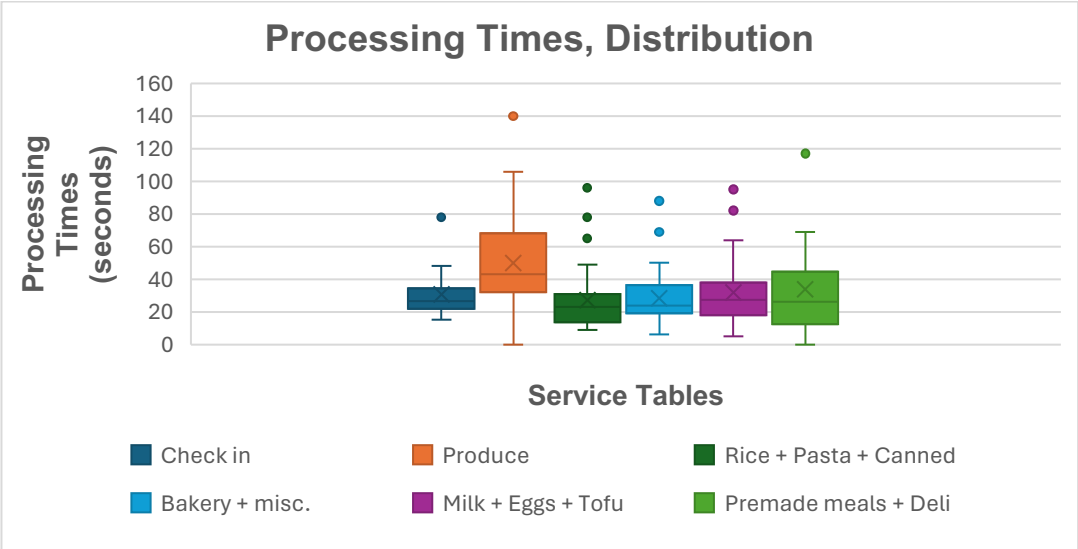


Figure 8: Variability in the distribution of processing times at different service tables

4.4. Process analysis: Applying Little's Law to calculate the optimal clients' arrival rate

Little's Law relates **I**, the number of clients in the process (maintained to a maximum of 4) to **T**, the average time each client spends in the process (average flow time or throughput time from entry to exit) and **R**, the rate at which clients go through the foodbank (throughput rate).

Littles Law: **I = RxT**

- I is maintained at 4 clients,
- T, the average throughput/flow time, has been identified as 3.3min (3min 20sec).
- Therefore, throughput rate, R= I/T = 4 clients/3.3 min = **1.21 clients per minute**. This is about 1 client per 50 seconds or 12 clients every 10min.

Assuming there is no line up ahead of hours of operations, the throughput rate should be equal to, or greater than the arrival rate to ensure constant flow of clients without a queue or wait times. **Hence, a uniform distribution arrival rate should be 1 client arriving at the foodbank every 50 sec (equivalent to 12 clients every 10 min.)**

4.5. Process analysis: The theoretical maximum output rate without wait lines

The analysis above provides important information about operational capacity of the foodbank, under the assumptions highlighted in section 2.3. The output rate (theoretical maximum number of clients that AMS foodbank can serve each day of operation), without any queue build up can be calculated as follows:

- Foodbank operates between 12pm-7pm, for 7hrs or 420min.
- Foodbank can serve clients at a rate of 1.21 clients per minute.
- **Output rate = 420min x 1.21 clients per minute = 508 clients per day**.

(*As mentioned in section 2.2, the highest number of clients served in a single day of operation was 507 clients, which is almost the same as the calculated output rate.)*

At the very least, the data suggests that long queues and wait times should not exist in the foodbank's operation. We can infer that the queues and wait times result from clients lining up ahead of the hours of operation.

5. Improve: reducing wait lines & wait times

5.1. **Option 1**: Implement a "no line up before opening" policy, adopt an appointment system

The calculations in sections 4.4 and 4.5 suggest the foodbank operation is still running under the maximum theoretical output of 508 clients per day. That is, if clients arrived at a steady rate of 1 client every 50 sec, without significant fluctuations or bursts, there would be no queues forming and the operation would run efficiently. **The first and crucial recommendation is therefore to adopt a no queueing policy, paired with a system that facilitates clients arrival**. The AMS foodbank should create time slots for clients to sign up in advance of accessing the foodbank.

This could be done in batches, where, as indicated in the calculations above, 12 clients can be scheduled in each 10 min intervals. It might be even better to have 10 slots for each of the 10 min intervals which would reduce the arrival rate to 1 client per minute hence providing a 10 sec buffer between clients. (This would reduce the output rate to 420 per day).

With this recommendation, however, there are other implications:

- First, the AMS foodbank will have to address the main reason why clients line up before hours of operation. One hypothesis is that some clients want to have access to all available items as some items to finish up very fast (e.g: meats, pre-made meals + deli and produce). Portioning items to redistribute them equitably throughout the hours of operation could be a strategy used to ensure clients don't see a need to line up ahead of the opening hours.
- Second, the AMS foodbank will have to adapt a system that facilitates clients' arrival which might require some degree of accessing some personal information of clients. The following table compares three potential options: A **ticket system**, a **virtual queue,** and an **appointment system**. Further research is recommended to decide what might be best suited for AMS Foodbank given its current operations and limited resources.

Aspect	Ticket System	Virtual Queue	Appointment System
Advantages	Simple to understand and use.	Clients do not need to be physically present, reducing crowding.	Predictable scheduling (such as the 12 clients every 10min intervals), effectively eradicating wait times.
	No technology needed for clients.	Can provide real-time updates on wait times.	Can optimize resource allocation and staff scheduling.
	Minimal setup costs.	Integrates with smartphones for convenience.	Improves client experience with a personal touch.
Disadvantages	Clients need to be physically present to take a ticket.	Requires clients to have access to a smartphone or computer.	Requires clients to commit to a time slot, which may not be flexible.

	Can still result in physical queues if clients aren't encouraged to leave premises while waiting.	May require internet access and digital literacy.	May require personal information for booking.
	Less sophisticated, no data on wait times or client flow.	Setup may involve more complex software and systems integration.	Might exclude clients without access to technology.
Implementation Ease	Generally easy to implement; can use physical or simple digital systems.	More challenging; requires a reliable IT infrastructure and client access.	Moderate to complex; depends on the system chosen and integration needs.
Cost	Typically low cost; may only need a ticket dispenser.	Potentially higher cost due to software or service subscriptions.	Can vary; potential costs for software licenses and system maintenance.
Scalability	Not easily scalable; managing large numbers can be cumbersome.	Highly scalable; can manage many clients efficiently.	Scalable; allows for adjustment of available slots as demand changes.
Client Experience	Immediate physical token of service, providing reassurance.	More convenient; reduces the need to wait in a physical line.	Can be very positive if managed well; appointments reduce uncertainty.
Data Collection	Offers limited data for analysis and improvement of service.	Allows for data collection and analysis to improve operations.	Facilitates detailed data collection for service optimization.

Table 2: Three options for a system that facilitates a no line up before operations policy

For this research, it might be worth having a dedicated volunteer to look at what's already out there. Below are suggested places to start:

- UBC Advising systems and the software/appointment systems they use.
- Asking other foodbanks in Vancouver/Canada.
- Online research, results vary from those specifically dedicated to foodbank operations systems such as Ceres Foodbank Software and Intelicle Foodbank System, to general small business appointment systems such as Sedulr, Bookafy, and SimplyBook.me, and specific virtual queueing systems such us Waitwhile and Qminder.

5.2. **Option 2:** 5 lean improvements to reduce identified muda

Option 1 above might not be feasible for various reasons, some identified in section 5.1. This section provides further suggestions that can be paired with educating clients about the negative impacts of queuing and the benefits of spreading out arrival times through flyers, signs, and community meetings in order to decrease processing time and minimize the likelihood of longer wait times.

AMS Foodbank needs to apply Lean methodology to the identified bottleneck and non-value adding activities that produce waste (muda) during the process. The aim should be to streamline operations, improve flow, and reduce muda without compromising client service and satisfaction. This will ensure the process continues to run efficiently, hence maintaining the throughput time and throughput rate calculated in the prior sections and preventing the wait lines from forming during hours of operation.

1. Eliminate choice	
Schedule an extra volunteer	Schedule an extra volunteer to be posted at the produce table and to service the client so that clients don't spend too much time trying to pick and choose between same items that are slightly unidentical.
Pre-bag produce items	Pre-bag produce items in packages of both individuals (clients with the "I" card) and with dependents (clients with the "F") card. This will allow clients to just pick pre-packed items and move along the process.
2. Get clients prepared	
Signage and guidelines	Display signs in front of the foodbank requesting clients to have their UBC Cards or SSC profiles ready for check in before they enter the foodbank.
Routine announcement	Get the volunteer at the check in desk to routinely step outside and gently nudge clients in the line to have their UBC Cards or SSC profiles ready for check in before they enter the foodbank.
3. Optimize bagging	
Pre-bagging items	Prepare standard bags of commonly selected items to minimize the time spent by clients arranging items in the bag.
Designated Bagging Area	Create a separate area for clients to arrange their items after they have completed the service cycle to prevent blockages at the service tables.
4. Minimize chatting	
Signage and Guidelines	Display signs in front of the foodbank and inside the foodbank to encourage efficient movement and discourage casual chatting in the service area.
Volunteer Training	Train volunteers to gently remind clients to keep the process moving if they are chatting excessively.

5. Efficient restocking	
Scheduled Restocking	Allocate specific times for restocking when the flow of clients is known to be lower to prevent delays during peak times.
Additional Stock Points	Position extra stock closer to service tables for quick replenishment without interrupting service flow.

Table 3: 5 Lean improvements to reduce wait times.

6. Control: Applying recommendations

6.1. Phased changes

Rolling out the recommendations above should happen in phases, in order to allow both volunteers and clients to adapt to the changes. Below is a 3-phase implementation plan that can be adopted by the AMS Foodbank.

Phase 1	Phase 2	Phase 3
Planning and Set up		
Select and set up an appointment sign-up system, configure the system to 10min intervals with 10 slots each.	Develop and distribute communication materials about the new system and policy changes to the students	Soft launch of a "no line up before opening" policy; socialize clients to start using the appointment system
Lean improvements & process optimization		
Deploy an extra volunteer to service the produce table, put up signage and guidelines around	Establish a designated bagging area	Implement the restocking changes

Table 4: 3 phases to applying the recommendations

6.2. Control measures: evolving as the food insecurity situation evolves

The following are some measures that AMS Foodbank should put in place to adapt as needed, and to maintain its operational efficiency while ensuring customer satisfaction:

Training & Feedback loops:

- Ensure all volunteers are well trained and understand the changes that are being implemented.
- Maintain open communication among volunteers and for clients to express their concerns or suggestions regarding the implemented changes.

Technology:

- Schedule regular maintenance of the appointment system (software/website) to ensure it remains user friendly and accessible by both volunteers and the clients.

Monitoring & evaluation:

- Regular data collection and analysis to monitor the changes in the process.
- Regularly review appointment adherence rates and collect feedback from clients who are unable to make the appointments or come during their scheduled slots.
- Monitor the foodbank items and adjust their distribution accordingly to ensure they are equitably available throughout the day.

7. References:

Shahbandeh, M. (2024, February 15). *Monthly CPI of food in Canada 2023*. Statista. https://www.statista.com/statistics/1331384/monthly-cpi-of-food-in-canada/

Uppal, S. (2023, November 14). *This study examines the relationship between income and food insecurity, looking at families most at risk, as well as the possible role of assets and debts in food insecurity.* Food insecurity among Canadian families. https://www150.statcan.gc.ca/n1/pub/75-006-x/2023001/article/00013-eng.htm

Using the Food Bank. AMS of UBC. (2023, July 5). https://www.ams.ubc.ca/support-services/student-services/food-bank/using-the-food-bank/

8. Appendix:

Appendix 1: Key Definitions (operational terms)

Bottleneck refers to points in the process where demand exceeds capacity resulting in delays, increase in wait times, and overall negative impact on the flow of the foodbank operations. Bottlenecks are created because clients take varying times to go through each service table. This is mainly caused by two possible factors:

- As clients take varying times to decide and obtain the products they want, and
- As volunteers take varying times to restock available products and make them accessible to the clients.

Buffer is the additional resources, time and/or volunteers, in the context of this project, available to absorb the fluctuations in the foodbank service demand.

Buffer capacity is the maximum number of clients a buffer can accommodate at any given time.

Capacity is the theoretical maximum output rate of a process, measured in number of units per time period.

Cycle time is the average time between successive clients from entering to exiting the foodbank. Measured as time per client.

Inventory and **service inventory build-up** in the context of this project will refer exclusively to the clients waiting to be served. Relating to inventory, this analysis will looks at what kind of work needs to be done ahead of time (for example, on Sundays and Wednesdays, when stocking the foodbank), and what can be done during the days of (Monday and Thursday) to increase operation efficiency, facilitate faster service and reduce wait times.

Lead time forecasting is the predicted amount of time it takes for products (foodbank supplies) to be delivered from point of order to receipt. In the context of this project, this might include the time it takes to restock service tables. Lead time forecasting is important for resource allocation, inventory management and enhancing overall operational efficiency.

Output is the number of clients served.

Output rate is the number of clients who access the foodbank in the 7hrs of each day it is open (Monday & Thursday). The reciprocal of output rate is cycle time, and it is measured as clients served per unit of time.

Processing time is the amount of time it takes each service table in the foodbank to serve a client. It is measured as a time period.

Takt time is the cycle time (rate) at which the foodbank service must operate to meet customer demand. In the context of this project, that includes meeting customer demand without having a client inventory build-up (a line up).

Throughput time is the amount of time each client spends in in the foodbank, from entry to exit.

Uniform distribution refers to a probability distribution where each value (such as the cycle time, throughput rate or processing time) within a minimum to maximum range is equally probable. Understanding distribution is important for inventory management (e.g, managing the queue build-up) and for forecasting demand and/or lead-time.

Utilization of a service table is the fraction of time that the table is actively used to serve a client or is blocked. It is the amount of time the table is occupied by a client divided by the total time it is available, measured as a percentage.

A service table is **blocked** when a client can't move to the next service table after getting service because the next service table is still being used (or buffer is full). A blocked service table cannot begin serving another client until the current one moves onto the next.

A service table is **starved** when it is idle and waiting to receive the next client. This can happen when the client in the previous service table is taking much longer than the allotted time.

Appendix 2: Sample raw data Collection

Processing & Throughput time

Processing time is the amount of time it takes each service table in the foodbank to serve a client. It is measured as a time period

□ Track time taken by clients from entry to exit; use a random sampling method: Since the number of people in the process is estimated around 6-8 at any given time, and each person is estimated to spend around 5min in the process, we are measuring processing time for every 8th person, or every 5min—whichever is longer.

Day + Date:
Shift (time of day):
Volunteer name & contact (email/Phone number):

		Processing Time (Sec)								
Client	**Entry time** (hr:min)	**Check in**	**Produce**	**Rice + Pasta + Canned**	**Bakery + misc.**	**Milk + Eggs + Tofu**	**Premade meals + Deli**	**Exit time** (hr:min)	**Duration in process** (Sec)	**Followed flow?** (yes or no) + Notes
1	12:15	25	55	36	36	49	49	12:19	250	
2	12:20	32	50	28	10	50	25	12:23	195	
3	12:25	19	49	10	19	16	24	12:28	137	
4	12:29	25	33	9	28	10	27	12:32	132	Seemed uninterested in some items, looked and
5	12:34	37	140	21	21	43	56	12:40	318	
6	12:51	25	67	27	21	26	54	12:55	220	
7	13:05	78	43	30	46	32	120	13:12	349	The two entered in pairs, did not seem to have student
8	13:05	78	43	30	46	32	120	13:12	349	cards ready, hence spent longer in the process. They were also chatting which slowed them down further.
9	13:16	31	40	17	50	30	17	13:19	185	
10	13:24	26	34	15	40	6	29	13:27	150	
11	13:29	23	78	21	25	95	43	13:34	285	

Service Inventory Build Up

15min Intervals	**Time**	**Clients waiting in line**
1	11:45	20
2	12:00	27
3	12:15	22
4	12:30	22
5	12:45	19
6	13:00	22
7	13:15	15
8	13:45	14
9	14:00	4
10	14:15	0
11	14:30	1

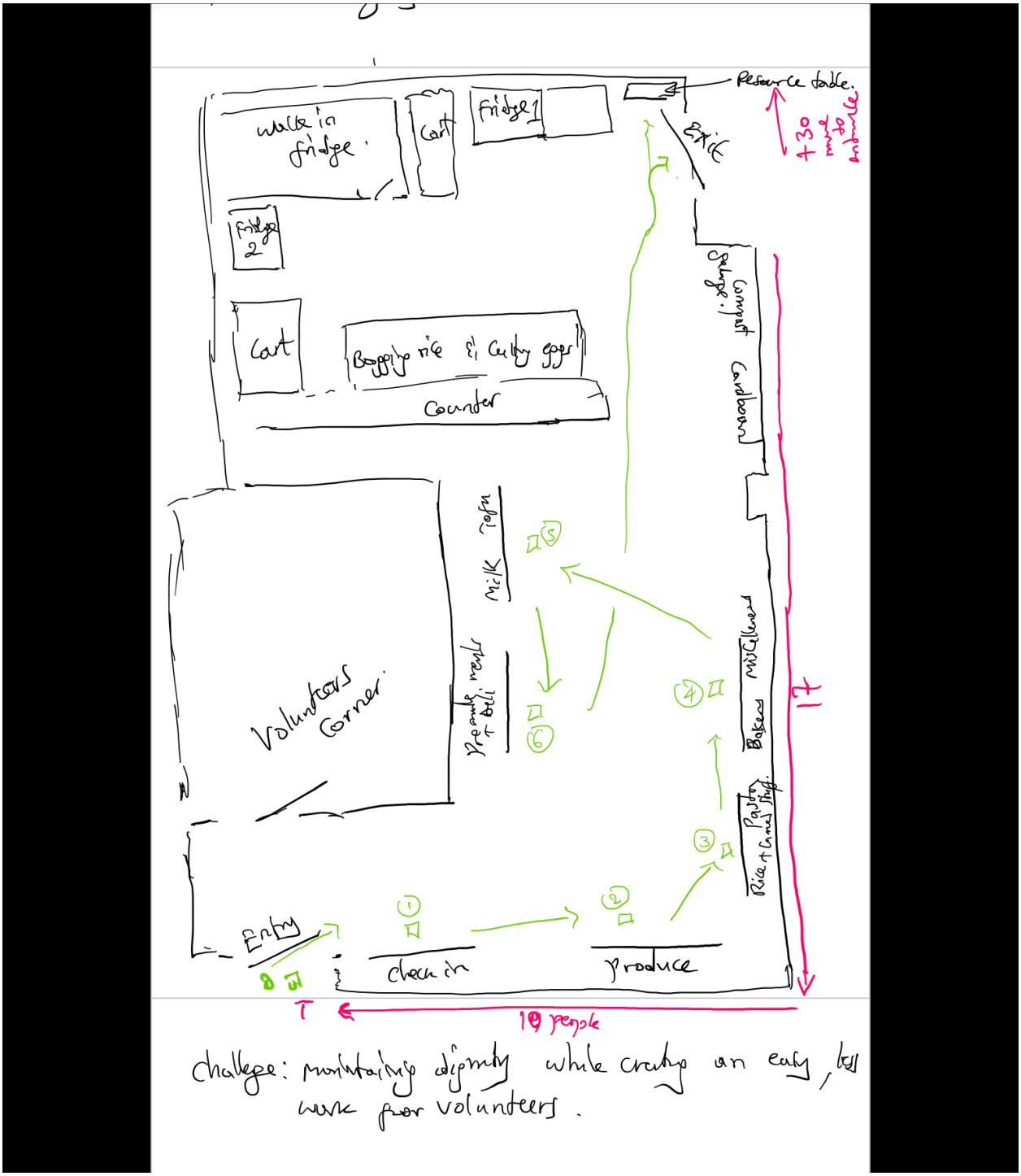
Appendix 3: Foodbank pictures

View from the door, check in table on the right

View of all service tables from the volunteer side of the produce table

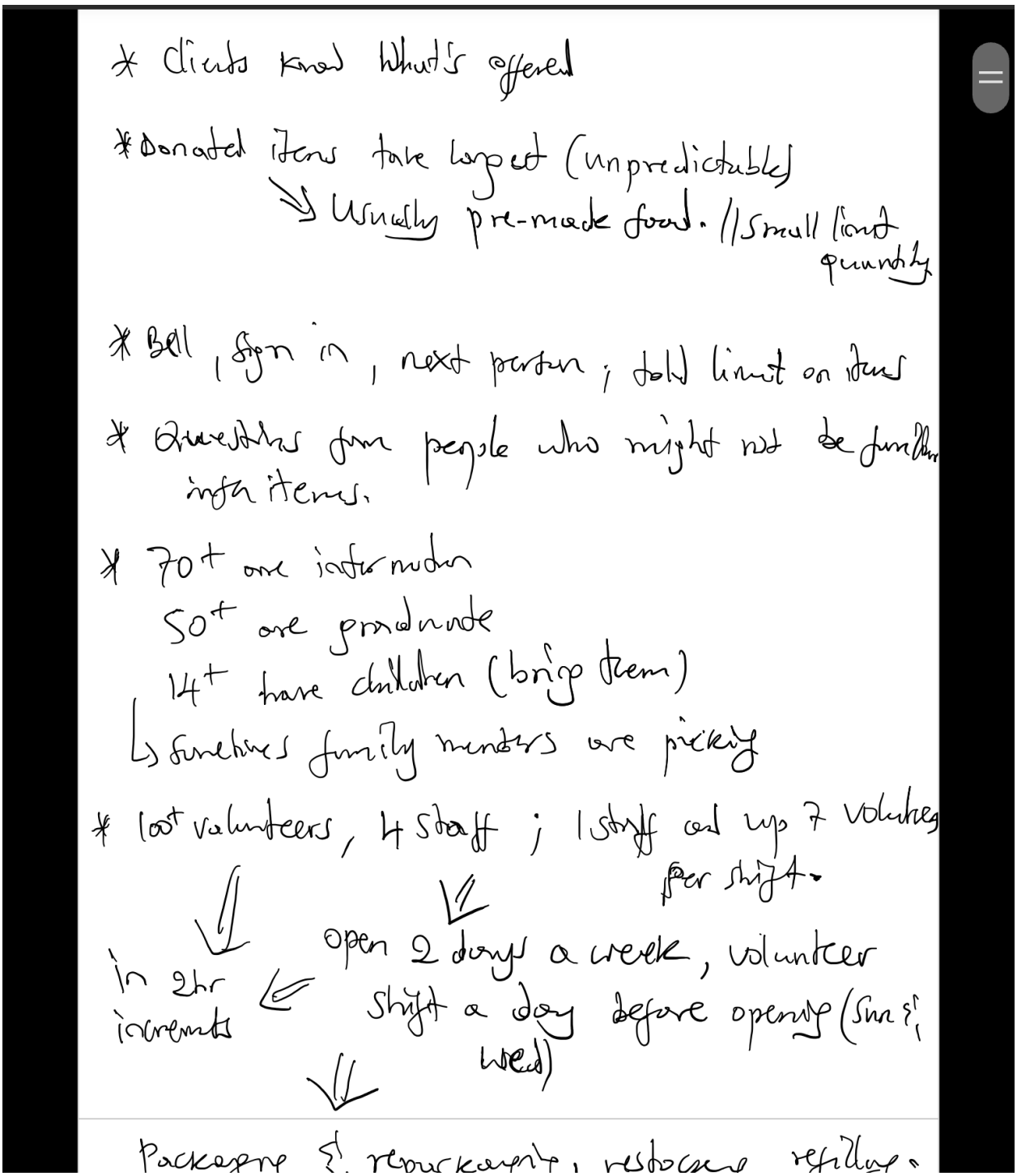
Poster near the resource table asking clients to return their “F” or “I” cards

Appendix 4: Initial sketch of the foodbank layout & client flow map



challege: maintaining dignity while creating an easy, flow work for volunteers.

Appendix 5: Sample notes from meetings with SEEDs Project Coordinator and AMS Services Staff



Appendix 6: Typed notes from meetings with SEEDs project coordinator and AMS Foodbank staff

Notes:

- Foodbank provides staple items that are purchased through UBC funding, including;
    - Rice
    - Pasta
    - Canned food
    - Etc
- Grocery stores and food retailers (e.g: Cobs bread) donate items that are nearing expiration
    - Donated items include premade food, but this is usually in smaller quantities
    - Donated items make the largest amount of items, but the amount fluctuates and can be highly unpredictable
- Clients has risen to 400+ users, an all time high being 507 in the first week of March (2024)
- There has never been measurement of how long it takes for clients to go through the process, but lines keep getting longer and clients find it dehumanizing to stand in the lines
    - Line up often starts 1hr30min before opening, and stretches to Bike Kitchen & entrance.
    - Wait times can be between 30-40 min
    - Some clients who come early leave bags or chairs as placeholders—but the staff discourage this
- Foodbank open on Mondays and Thursdays between 12pm-7pm.
- Stocking takes place a day before, from 11am onwards
- Volunteers are maxed at capacity, especially during the first 2hrs of operations (12pm-2pm)
- 12pm-3pm tends to be the busiest hours of operations, with a long queue that starts forming around 11 a.m
- There are 100+ volunteers, and 4 staff; each shift of operation usually have at least 1 staff and up to 7 volunteers
- Staff don't know the number of volunteers who will show up until they do
- Volunteers operate on 1hr or 2hr shifts, during which they;
    - Bring supplied items into the foodbank and prep for operations (only on Sundays & Wednesdays)
    - Facilitate check in
    - Stock & restock service tables
    - Available number of volunteers impacts the processing speed (or service) for clients
- Clients are only identified through a UBC IDCard /SSC profile
- Clients know what is offered in the foodbank, they bring their own bags.
    - Foodbank operates on first come first served basis, potentially a significant contributing factor to the long line up ahead of opening hours.
- Clients can be individuals or families. At check-in, foodbank uses a trust-based system to let the clients inform them whether they have dependents or not.
- Bottlenecks have been observed in both the meat and produce section
- What's available on the table (or readily available for restocking) is what clients get, except during less busy times when volunteers can check the fridge
- Staff have rearranged the tables for better flow of clients in the foodbank