UMD Campus Pantry

Quest Group Project - BMGT438A
Goals and Objectives

1. Find out who the Campus Pantry serves.
2. Find trends in the Campus Pantry Data.
3. Compare to the campus-wide food insecurity study.
4. Provide recommendations for tracking moving forward.
1. Data Analysis Approach
Approach

1. Clean the data
2. Identify total client breakdown
3. Identify client trends since 2014
4. Group clients into clusters
Data Format

- Excel spreadsheets
- Semesterly vs. Yearly
- Entered manually by Campus Pantry
Data Collection

ID
Race/Ethnicity
Gender
  UMD Affiliation (student or faculty/staff)
  Full time or part time student/staff
  Student classification (grad vs undergrad)
  Dependents (yes or no)
  Number of Dependents
  Allergies or dietary restrictions
  Cooking appliance access
  Weekly distribution attendance
Data Cleaning

Many rows have empty values
Drop columns that are overwhelmingly empty, then drop rows with empty values

Client did not attend any distributions
Remove these clients because we do not know if they used the pantry’s services

Combine distributions by month
Combine client distributions by month for standardization
2. Who Does the Campus Pantry Serve?
## Study Comparison

### Campus-Wide Food Insecurity Study

<table>
<thead>
<tr>
<th>Category</th>
<th>Study Data</th>
<th>Pantry Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate student</td>
<td>65.2%</td>
<td>61.05%</td>
</tr>
<tr>
<td>Graduate student</td>
<td>34.8%</td>
<td>38.95%</td>
</tr>
<tr>
<td>Female</td>
<td>73.9%</td>
<td>68.80%</td>
</tr>
<tr>
<td>Male</td>
<td>21.7%</td>
<td>28.10%</td>
</tr>
<tr>
<td>Other</td>
<td>4.3%</td>
<td>3.10%</td>
</tr>
<tr>
<td>Asian/Asian American</td>
<td>39.1%</td>
<td>28.80%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>17.4%</td>
<td>33.70%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>17.4%</td>
<td>26.30%</td>
</tr>
<tr>
<td>White</td>
<td>43.5%</td>
<td>6.70%</td>
</tr>
<tr>
<td>Other</td>
<td>26.0%</td>
<td>4.50%</td>
</tr>
</tbody>
</table>
# Data Clusters

## Main Client Demographics (K-Mode Analysis)

<table>
<thead>
<tr>
<th>Cluster Size</th>
<th>66%</th>
<th>13%</th>
<th>21%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity</td>
<td>African American or Asian</td>
<td>Hispanic, Latino, or Asian</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td>Gender</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>UMD Affiliation</td>
<td>Student</td>
<td>Faculty/Staff</td>
<td>Faculty/Staff</td>
</tr>
<tr>
<td>Number of Dependents</td>
<td>0</td>
<td>0</td>
<td>1–2</td>
</tr>
<tr>
<td>Distributions Attended</td>
<td>1–3</td>
<td>4–6</td>
<td>1–3</td>
</tr>
</tbody>
</table>
3. Trends Since 2014
Client Race/Ethnicity

Hispanic or Latino Clients

African-American or Black Clients

Race/Ethnicity Breakdown by Academic Year: Hispanic or Latino

Race/Ethnicity Breakdown by Academic Year: African-American or Black
Client Race/Ethnicity

Asian Clients

Race/Ethnicity Breakdown by Academic Year: Asian

% of Clients

UMD Affiliation

UMD Affiliation Breakdown by Academic Year

% of Clients


Student
Faculty/Staff
Both
Student Status

Status Breakdown by Academic Year

Percentage of Students

Undergraduate
Graduate

Student Status

Status Breakdown by Academic Year

Percent of Students

Freshman | Sophomore | Junior | Senior

4. Recommendations
Phase 1

Data Collection Standardization (1-2 year period)

Standard information form ➔ Reduce room for interpretation

Data will become easier to analyze ➔ More data can/should be collected
“Please list any dietary restrictions.”

- Nuts?
- Shellfish?
- Gluten?
- vegetarian/vegan?
- Dairy?
- Kosher?
- Halal?
- other?
Phase 2

Swipe or QR Code System (2–5 year period)

Work with the office of the registrar to use UID’s

**Data security is a major factor:** Each user will be identified with a randomly generated ID number or last 4 digits of UID

*Save time and improve time-series data*
5. Impact
Impact: User Intake (Current Process)

Start: Create Intake Form

Provide Users with Printed Forms

Client Fills out Form

Import Complete Data into Excel

Client Fills out Form Again

Accurate and Complete?

End: Manually Input and Analyze all Intake Forms in Excel

User Submits Form

Retrieve Forms (End of Semester)

Select Option

Multiple Choice Question?

Choose accurate option

Applicable Answer Available?

Select “other” and Write in Answer

Collect and Store Forms

Input Partial Data into Excel

NO

YES

YES

NO

NO

YES

Write in answer

NO

YES

NO

YES
Impact: User Intake (Ideal Process)

1. Start: Create Digital Account Intake Form
2. Provide Users with Digital Form Link
3. Returning Client?
   - NO: Client Makes Account/ Fills out Digital Form
   - YES: Client Swipes Student ID to Sign In
4. Visit Automatically Recorded in Google Sheet
5. Client Account Info Automatically Inputted in Google Sheet
6. Analyze Standardized Data on Google Sheet (End of Semester)
THANK YOU!

Any questions?