



# Project Presentation

Anjali Gupta, Katrina Apiado, Troy Uysal, Kirk Kuran

# Define

What is the  
problem?



# Business Description

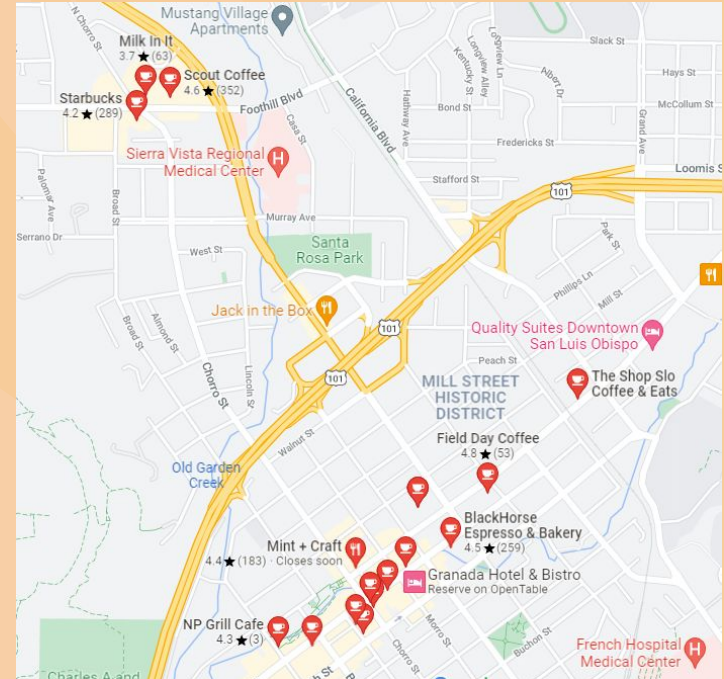
## What is Scout Coffee Co?

- A popular coffee shop for San Luis Obispo Residents
- Offers coffee, baked goods and indoor/outdoor seating



## Nearby competition:

- Starbucks
- Libertine Coffee Bar
- Blackhorse
- Kreuzberg
- Sasquatch
- Field Day



# Problem Statement

- The Problem:
  - Scout Coffee Co has a high volume of customers that the store currently cannot efficiently handle
  - There aren't enough seats for customers
- The Business Issue:
  - New and returning customers are turned away by the long lines and wait times
  - A lack of seating turns away people who are looking to sit down, especially studying students.

# Project Scope

## **In Scope:**

- Seating Availability
- Seating Arrangement
- Outlet/Amenity Availability
- Customer Happiness
- Service Experience

## **Out of Scope:**

- Quality of food/drink provided
- Who comes into the store
- Food making/processing equipment
- Training/Hiring of new or current employees

# Measure

Data

Collection



# Data Collection

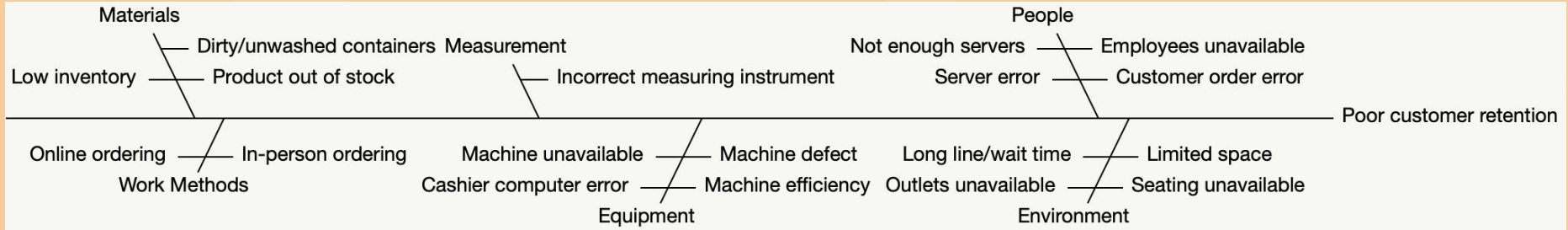
- Direct observation
- Polled customers on visiting experience
  - Asked about experience satisfaction, availability of seating, and (if applicable) reason for not staying
  - Asked why customers decided to get coffee at Scout, and if being able to stay for an extended period of time affected their choice.
- Observed flow of customers to identify total number of customers, seating/table availability, and determine high/low volume periods

# Methods of Analysis

- Poll data was configured into a pareto chart and a general customer satisfaction measurement
- Counting data was broken up into categories
  - The date was organized into weekend(Sat & Sun) or weekday(Mon-Fri)
  - Time was organized into morning (8AM-12PM) and afternoon(12PM-4PM)
- Gathered data on number of customers, number of available tables and available seats
- Took 16 samples of sample size 5
- Analyzed with JMP and Excel to visualize busyness and seating availability



# Failure Analysis: Fishbone Diagram



# Analyze

## Data Analysis



# Customer Survey: What Causes Patrons to Leave?

- Survey filled out primarily by Cal Poly students
- Focused on why the respondents chose not to stay
- Pareto Chart identified 3 key reasons for why patrons left:
  - Not enough seating
  - Was not planning on staying to begin with
  - Lines were too long

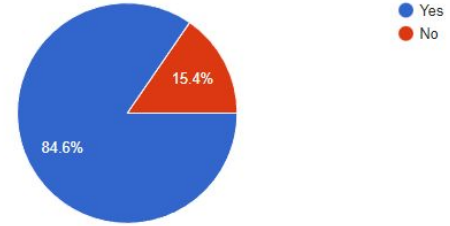


# Data Analysis: Polling Overview

- Customer polling data indicated some potential problems for Scout
  - Overall customer satisfaction seemed positive, with potential room to improve
  - Significant lack of seating

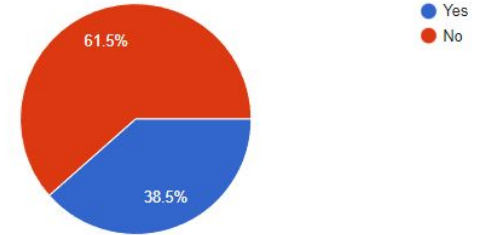
Did you enjoy the experience?

26 responses



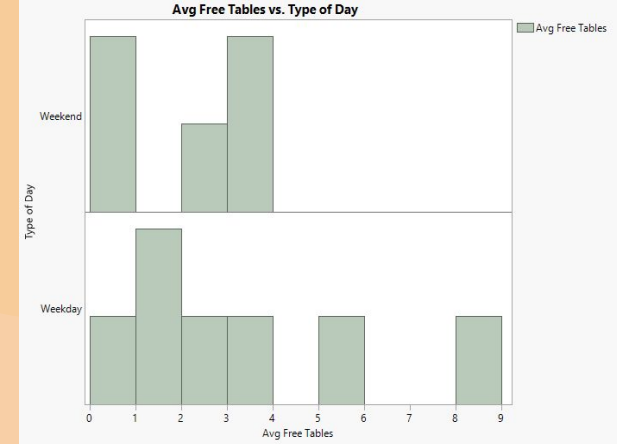
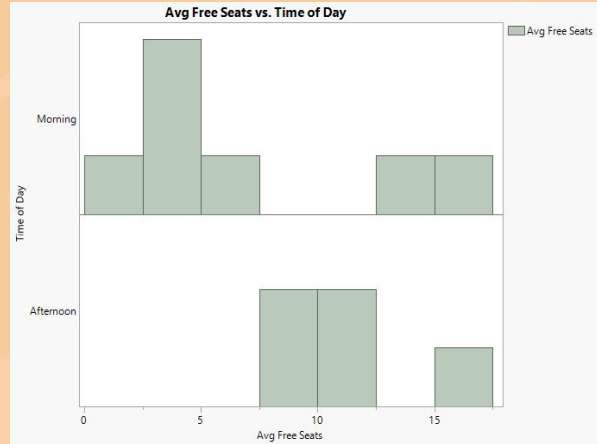
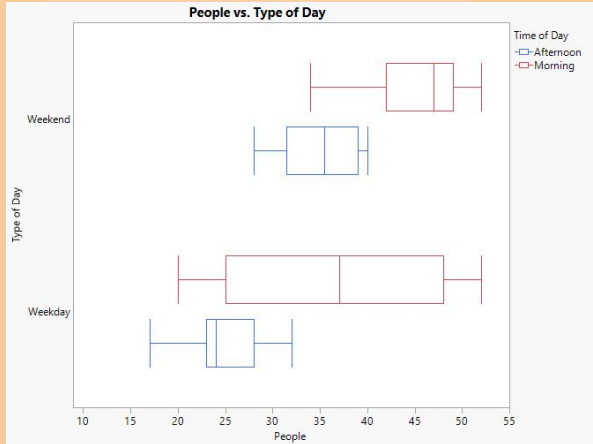
Was there enough comfortable seating available?

26 responses



# Data Analysis: Counting Data

- There were more patrons on the weekends and during the mornings (10 more on average)
- During the weekdays, the flow of customers is much more variable
- Seating was consistently an issue, especially during the busiest hours



# Improve

## Ways to Improve



# Adjust Seating Arrangement

- Improve seating arrangement to maximize comfortable seating
- Factors to consider when arranging coffee shop layout:
  - Add outlets to encourage students and electronic using customers to use Scout Coffee as their “go-to work spot”
  - Add outdoor seating
  - Make sure to have a stable, strong internet connection that customers can use freely.



# Improve Time to Serve during High Volume Hours

- Significantly higher number of patrons during morning hours (8 AM-12PM), especially during weekends
- Additional potential methods for improvement during these hours:
  - Increase the number of baristas
  - Simplify menu to decrease the time to make coffee
  - Implement an online order system
  - Add a waiting space for customers waiting on their order with seats, tables, reading material, etc



# Control Implementation



# Control: Techniques to Validate Solutions

- Implement a Time to Serve counter, recording the time to serve for each customer
- Prompt customers to take a survey on their experience. Include on receipt or with a QR code at the register
- Monitor the number of customers standing, sitting, and the number of open seats/tables
- Create a floor plan with tables and seats. Monitor what locations are frequently occupied and what locations are frequently unoccupied to maximize the quality and availability of seats

# Thank you!

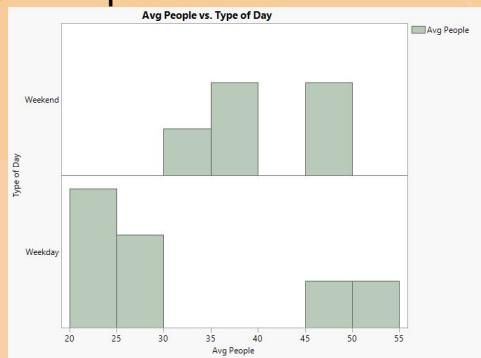
Questions?



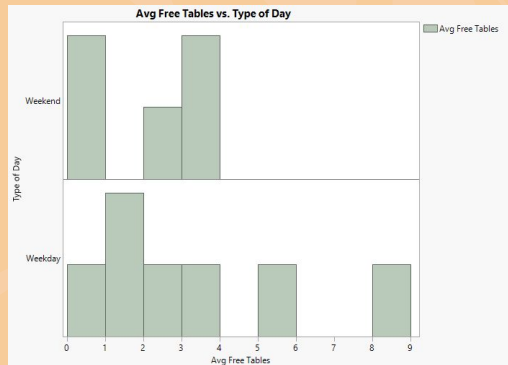
# Different ways of visualizing data: Histograms

Date type

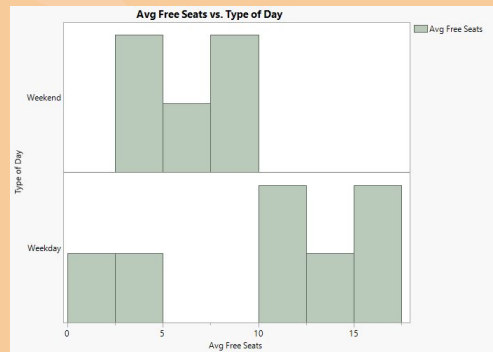
## People



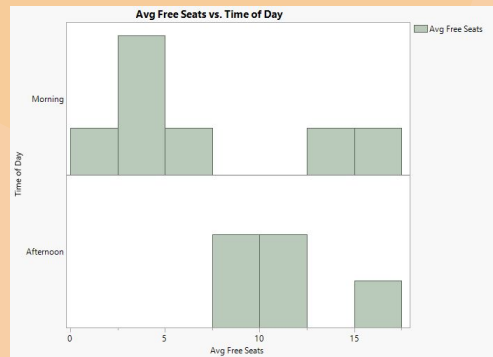
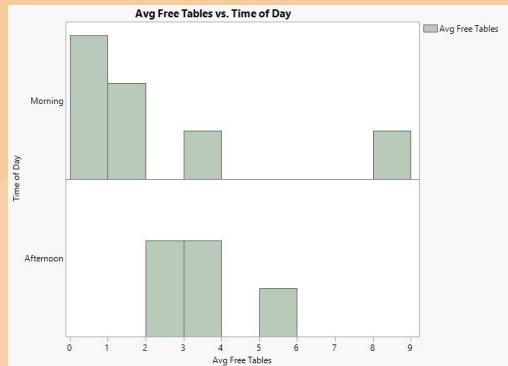
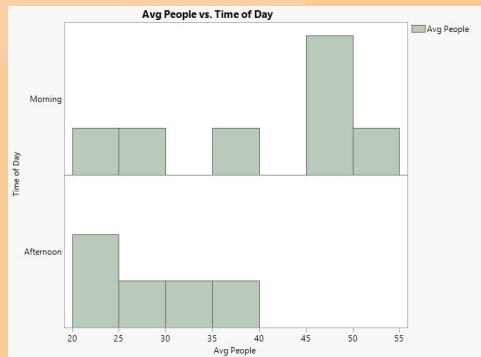
## Tables



## Seating



Time of day



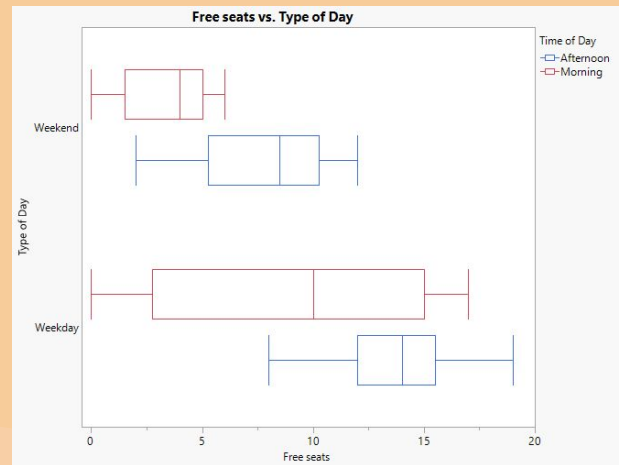
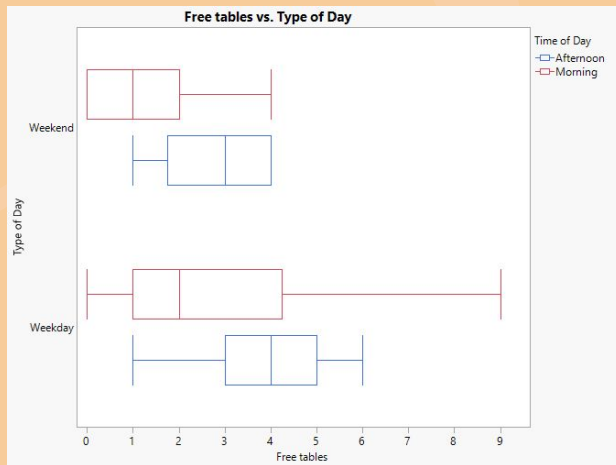
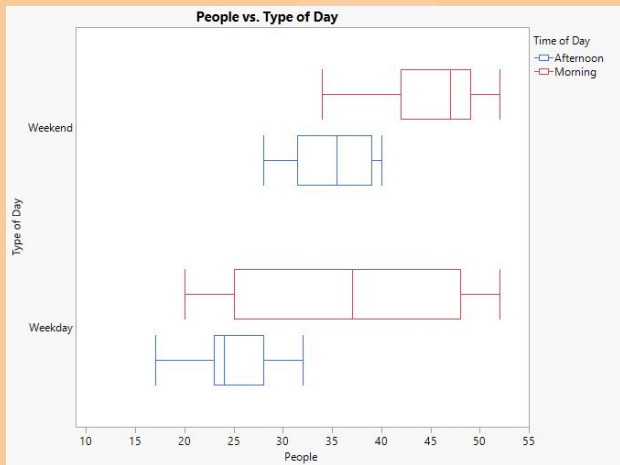
# Different ways of visualizing data:

## Scatter Plots

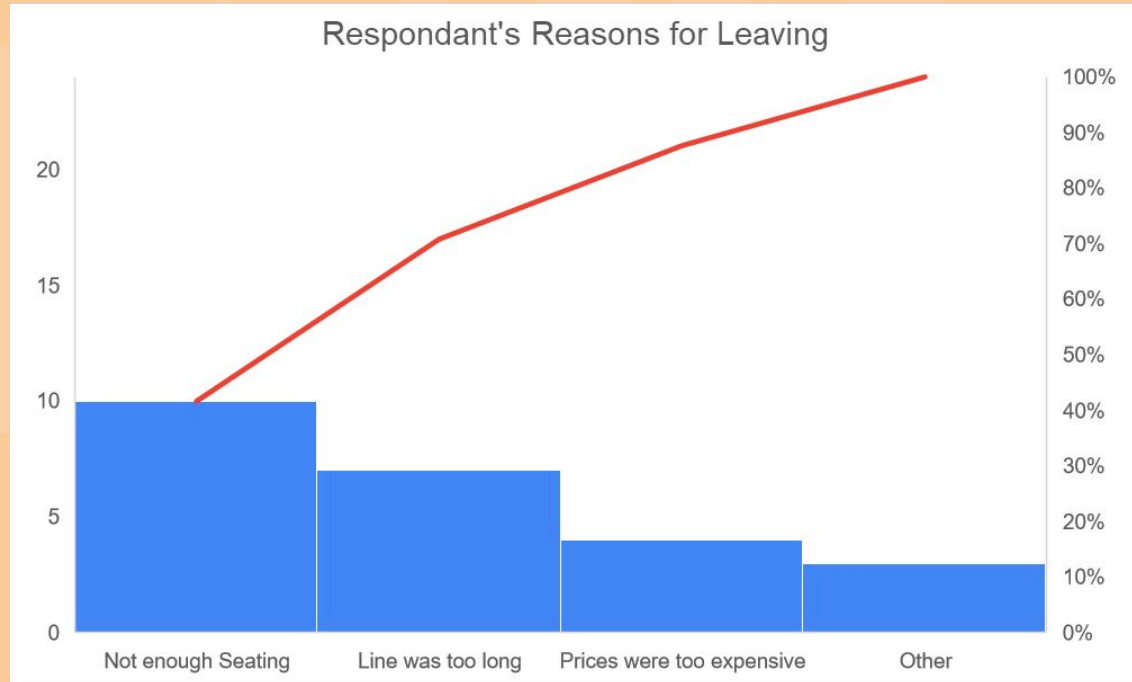
People

Tables

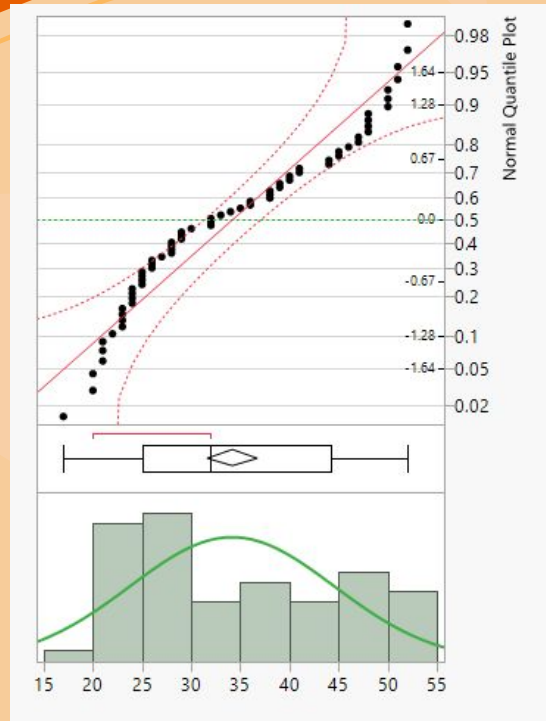
Seating



# Pareto Chart Without Planning to Leave Data



# Checking Normality



## Goodness-of-Fit Test

	W	Prob < W
Shapiro-Wilk	0.9237457	0.0006*
	A2	Prob > A2
Anderson-Darling	1.7049112	<.0001*