

# POV and Prototyping



# Problem Domain



## Food Waste and Food Insecurity

- Making food accessible to the food insecure
- Producing less waste
- Building empathy around food insecurity

# Roadmap

- Initial POV
- More Needfinding
- POVs
- Experience Prototypes



# Initial POV

We met Nancy from Food Runners. We were amazed to realize that some people do not go to food distributions centers because they feel uncomfortable. It would be game changing to make it less stigmatized to access food.

# Roadmap

- Initial POV
- More Needfinding
- POVs
- Experience Prototypes





“We found out about Salvation Army from our neighbor in the senior home. She offered to take us one day.”

“It’s very helpful for seniors since we don’t have consistent income. The food can last two weeks and they give us good food like chicken or fish.”

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# Carol Elliot

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**“Lots of wasted food in my household in two types: **raw produce** and **leftovers**.”**

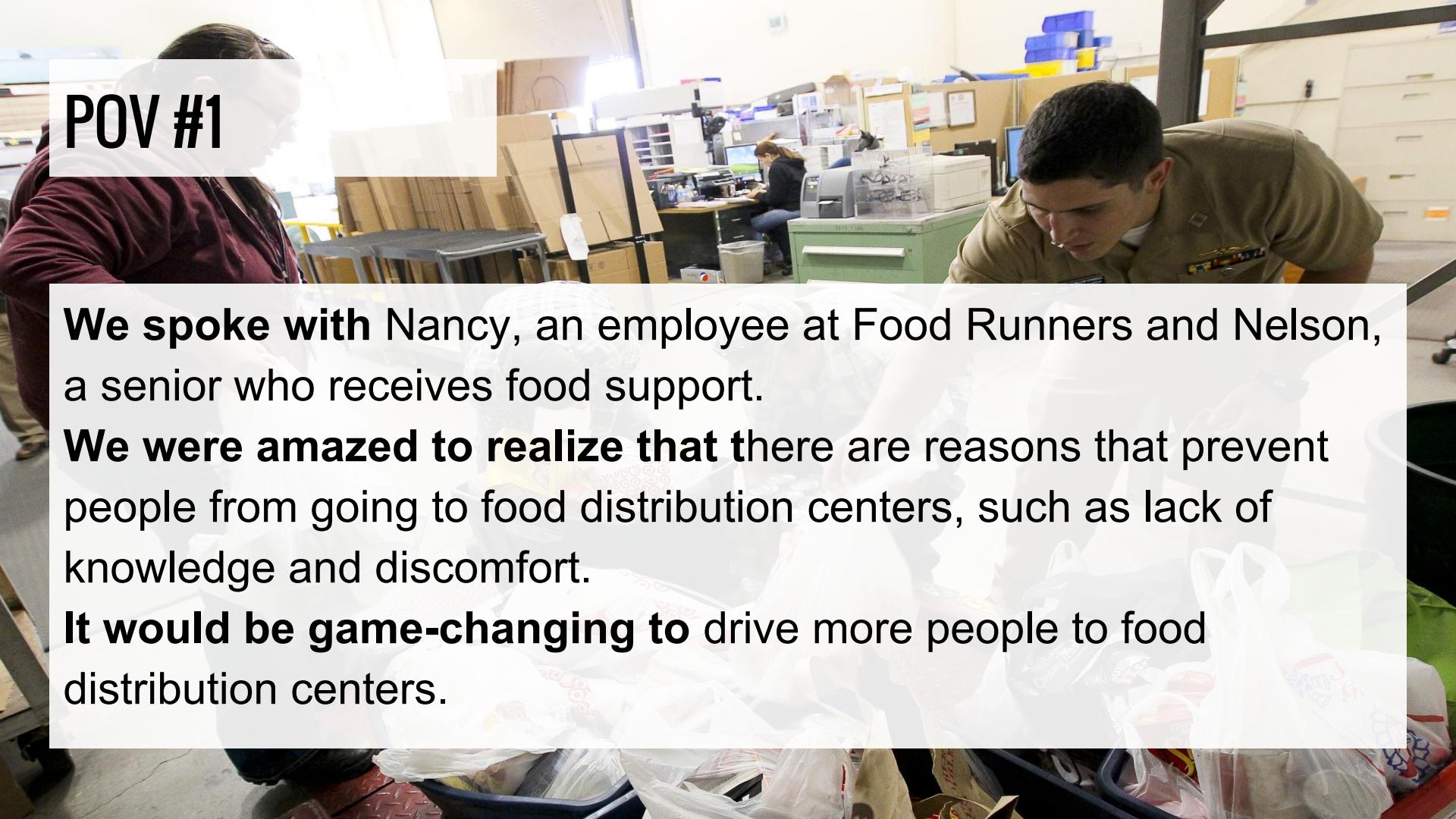
**“**Some leftover foods**--like soup--can't be stored for lunch because it's too messy. ”**

# Roadmap

- Initial POV
- More Needfinding
- **POVs**
- Experience Prototypes



# POV #1

A collage of images showing food distribution centers and employees. It includes a woman in a maroon shirt, a man in a tan uniform, a woman working at a desk, and a large pile of food items like bags of flour and boxes of cereal.

We spoke with Nancy, an employee at Food Runners and Nelson, a senior who receives food support.

We were amazed to realize that there are reasons that prevent people from going to food distribution centers, such as lack of knowledge and discomfort.

It would be game-changing to drive more people to food distribution centers.

## POV #2

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We spoke with Andy, a produce manager at the Mollie's Stones grocery store.

We were amazed to realize that a significant percentage of food waste is derived from poor predictions of the expected consumption and/or purchase of food in the workplace and grocery stores.

It would be game changing to be able end the trend of over-ordering.

# POV #3

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**We spoke with Kate, the Director of Project Management at the Second Harvest Food Bank.**

**We were amazed to realize that the donations received are often not the type most needed by recipients & monetary contributions are strongly preferred.**

**It would be game-changing to ensure that the type of donations given actually match the type of donations needed.**

# Roadmap

- Initial POV
- More Needfinding
- POVs
- **Experience Prototypes**



# HMW #1

HMW make food more accessible for the food insecure?



How many people are in your household? 

Is any household member a seasonal or migrant farm worker? 

Yes  No  

Is this household homeless or living in a shelter? 

Yes  No  

## Server Error

**404 - File or directory not found.**

The resource you are looking for might have been removed, had its name changed, or is temporarily unavailable.

Where do you live?

 Select state 

How many people are in your household?

 Select # 

What is your median income?

 \$

OPTION 1: SNAP PROGRAM

ELIGIBILITY: \$100-150/month

SIGN UP HERE

OPTION 2: Food Options NEARBY

Available Now

Redirect to Map

Option 3:

WIC Services near me

Apply for WIC

Food Near You

Food Bank  
Hours: 5-10pm  
7-9am  
10 mins away  
123 Hyde Street



Episcopal  
Church

Senior  
Center

Filters

Open Now:  On/Off

Open At:

Within  5 miles

## What Worked

## Didn't Work

## Surprises and New Learnings

- Easy to look at all available options
- Easy to fill in information

- Needed more information on each option
- Need to ask more questions in the form

- Wanted both long term and short term options
- Need to give a short summary of each option/ how long it would take

# HMW #2

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HMW better predict food  
needs for consumers and  
producers?



# PROTOTYPE: Food Preparation Prediction Tools



**Idea:** Give chefs tools to predict and track how much food is consumed to reduce excess

**Participant:** Peter Ochoa, Executive Chef of Florence Moore Dining, Stanford University

A row of seven hand-drawn wireframe prototypes for food preparation prediction tools, arranged horizontally. Each prototype is a rectangular card with various sections and input fields.

- Card 1: Buttons for "New Poll" and "New Recipe". Sections include "Poll Results", "Analytics", "Recipes", and "Enter Statistics". Buttons at the bottom include "Return to Home" and "Print".
- Card 2: Form fields for "TIME" (with dropdowns for "Start" and "End") and "Servings". A section for "Ingredrients" with "Quantity" fields and a "Save" button.
- Card 3: Form fields for "Send to" (dropdowns for "Email", "FB", "Twitter", "SMS", "Print") and "Q1" (dropdowns for "People", "Chefs", "Restaurants", "Consumers", "Prepared", "Ready-to-eat"). A section for "Q2" with "What portion" dropdowns and a "Send" button.
- Card 4: A summary card for "For the week of 10/10/16" showing "People said:" (Rice: 800 portions, Pasta: 400 portions) and "Your estimate" (Rice: 800 portions, Pasta: 400 portions).
- Card 5: A summary card for "For the week of 10/10/16" showing "People said:" (Rice: 800 portions, Pasta: 400 portions) and "Your estimate" (Rice: 800 portions, Pasta: 400 portions). Buttons at the bottom include "Return to Home" and "Print".
- Card 6: A "Grocery List" card with a large text area for grocery items and a "Send to" button.
- Card 7: An "Analytics" card showing graphs for "Actual vs. eaten" (this week, last month, 3 months) and "Change in food made" (Dish, Protein, Carbohydrate, Leftovers, Dishes, Portions). Buttons at the bottom include "Return to Home" and "Print".

## What Worked

- “Idea is right on!”
- Liked the feature of sending out polls to figure out how much people think they would eat

## Didn't Work

- Scaling recipes from small portions to ~800 people predictively **is not linear** **mathematically**
- Chefs use units of measure that are hard to standardize: e.g. gram vs. wet gram
- Hard to calculate the **fat content** in

## Surprises and New Learnings

- “We already have all of this in our system...just not in a mobile app.”
- Instead of me, the ideal user would be a small business owner who could use it for marketing/menu planning

# Assumption

# Validity

Head chefs would benefit from a predictive way to gauge how much food to cook.

Chefs do not currently have a means of predicting food volumes based on historical trends.

At large food establishments it's harder to predict how much food to make.

**Restaurants generally produce food waste due to overprepared food quantities**

**Valid:** "The idea is right on!" The chef seemed happy with what we showed and extremely familiar with the concepts of food analytics.

**Invalid:** "It's all there already, just not in mobile app form."

**Invalid:** "I have experience working in hotels with ~500 rooms and we always have a head count and guest list."

**Invalid:** "Chefs in restaurants usually re-cycle food by taking leftovers and repurposing them into another item."



**Chris Cuneo**  
**Manager, Mayfield Bakery**

“I can't imagine running this business without the **ProductMix software**. It's a very basic spreadsheet with lots of info.”

“Communicating with the chefs is hard sometimes. I **remember running around yelling at them about why we're out of pasta on a Friday night.**”

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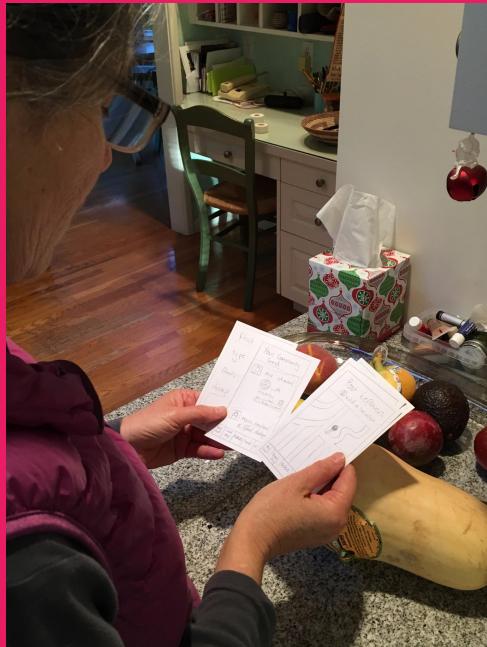
# HMW #3

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**HMW empower and  
encourage local communities  
to act upon the issue of food  
insecurity?**

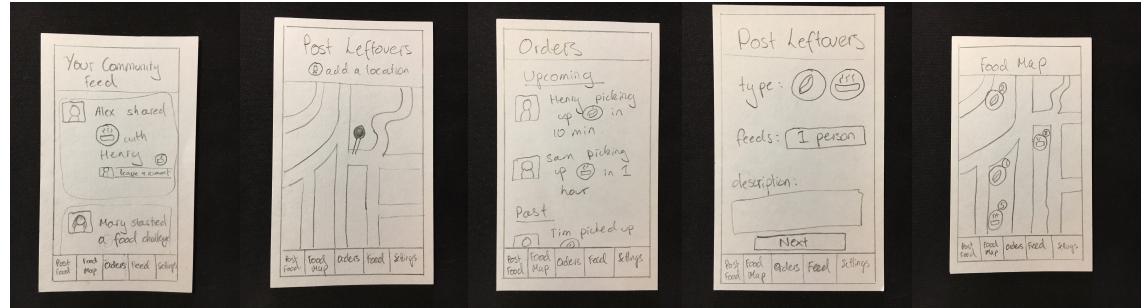


# PROTOTYPE: Food Community



**Idea:** Make sharing and reusing leftover food normal practice within communities

**Participant:** Gail Blumberg, Menlo Park domestic household



# What Worked

- **Quick and easy to post available food**
- Amounts of wasted food from households sufficient to fuel idea
- Easy to browse food close to you
- Competitions inspired higher likelihood of continued use

# Didn't Work

- **Food can't be left outside indefinitely**, unclear how long it takes to pick up
- Browsing food by location not useful for making require certain ingredients
- Making donors think about perishable goods ahead of time

# Surprises and New Learnings

- People who share food within their community **might not want to have a face-to-face interaction** (social opt-out)
- Security a big issue (potentially overcome with mutual friends)

# Assumption

# Validity

**Households would offer up leftovers instead of throwing them away if it were easy to do so.**

Households generate enough waste to make this worthwhile.

People are willing to share food with strangers that come to their door.

Food is a strong enough concept to build a community around.

Competition within groups is an effective motivator.

**Valid:** “being able to donate food with 3 button pushes is very quick”

**Valid:** “I cook for myself and still generate a lot of waste, especially when traveling”

**Invalid:** “I would only open my door to people I know, or people I have mutual friends with”

**Valid:** “I’m always talking with friends about sharing food”

**Valid:** “Families always go crazy over that sort of stuff”



# PROTOTYPE: Food Community

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## What We Learned: User's Needs

- **Security of donors**
- Donate without being forced to be social

## What We Learned: Our Solution

- **Fast pickup** so that food doesn't go bad
- Browsing food by location not always optimal
- Donors will not think about donating perishable goods ahead of time



# PROTOTYPE: Food Preparation Prediction Tools

## What We Learned: User's Needs

- Bridging the communication gap between front house (management) and back house (chefs)
- Raw data on food trends ahead of time

## What We Learned: Our Solution

- Creates a mobile interface with a user-friendly UI that replicates current desktop tools
- Managers are happy with raw data in a spreadsheet
- **Equipping chefs with the mobile app in a time-pressed environment might not solve the problem**

