



# Move Utah

ACTIVE, HEALTHY, CONNECTED COMMUNITIES

---

Hungry for Change: How Cutting-Edge  
Research is Helping to Reduce Food Deserts  
in Utah

# GOLD LEVEL PARTNERS



# SILVER LEVEL PARTNERS



# BRONZE LEVEL PARTNERS

**AECOM**

 **FELSBURG  
HOLT &  
ULLEVIG**

 **BIO-WEST**

  
**DAVID EVANS  
AND ASSOCIATES INC.**

**Parametrix**  
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES

**Sam  
Schwartz**  
A TYLin Company

  
**PENNA POWERS**



# STUDENT SCHOLARSHIPS

FEHR  PEERS



# SUMMIT FRIENDS



LOUIS ALLORO  
CHAMPION OF CHANGE





# Healthy Utah Community Designation



Healthy Communities are  
**Nourished Communities**



UTAH LEAGUE OF  
CITIES AND TOWNS

TO LEARN MORE VISIT:  
[GetHealthyUtah.org/HealthyUtahCommunity](http://GetHealthyUtah.org/HealthyUtahCommunity)



# SPEAKERS



**Laura Holtrop  
Kohl**  
DHHS



**Alisha Redelfs**  
BYU Public Health



**Greg Macfarlane**  
BYU Civil  
Engineering



**Lori Spruance**  
BYU Public Health



**Shawn Begay**  
Utah Navajo Health  
Systems





# Healthy Food Access

## Food Access:

- Availability
- Affordability
- Accommodation
- Acceptability

## Why do we eat what we eat?

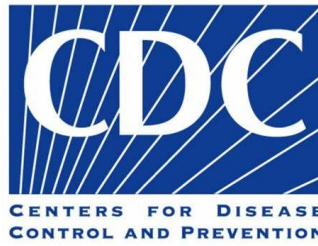
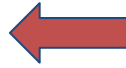
- Taste
- Cost
- Nutrition
- Convenience

“Proximity does not equal access.”

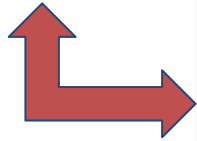




Utah Department of  
**Health & Human Services**  
Population Health



(Mostly)



Local health departments



Communities/organizations



# Current Work: Healthy Food in Pantries



**Assessing** food pantry environments

[https://extension.usu.edu/fscreate/files/2020-22-staff/Nutrition\\_Environment\\_Food\\_Pantry\\_Assessment\\_Tool.pdf](https://extension.usu.edu/fscreate/files/2020-22-staff/Nutrition_Environment_Food_Pantry_Assessment_Tool.pdf)

**Creating action plans** to address areas of improvement

**Implementing** changes and adopting nutrition standards to increase access to heart-healthy food options

- Food options
- Behavioral design



# Current Work: Healthy Food in Pantries

March 2020

**CREATE** Healthy Pantries

**CREATE** SNAP-ED  
BETTER HEALTH



Nutrition Environment  
Food Pantry  
Assessment Tool

Adapted from

Illinois Extension



## General Information

**Directions:** This assessment tool is meant to provide perspective on the nutritional environment of the food pantry. Items marked with an \* indicate that valuations will be made using both objective observations, as well as questions to be asked of pantry staff/volunteers. Please make your assessment based on observations made during the food pantry's food distribution services.

Foods to Encourage(F2E) includes "Thumbs Up for Healthy Choices" Healthy Food

Date \_\_\_\_\_

Name of Ambassador \_\_\_\_\_

Name of Food Pantry \_\_\_\_\_

1. Increase client choice for nutritious options
2. Market and “nudge” healthful products
3. Provide various forms of fruits and vegetables
4. Provide various types (colors) of fruits and vegetables
5. Promote additional resources
6. Plan for alternative eating patterns



# Current Work: Produce Incentives



**HAVE A HORIZON EBT CARD?**

Get **FREE** fruits & veggies with  
**DOUBLE UP FOOD BUCKS**



**BUY \$1**  **GET \$1**

Find a Location Near You:  
[DoubleUpUtah.org](http://DoubleUpUtah.org)



## Five Steps to SFMNP Enrollment



Seniors 60 years or older must approach an information booth at an authorized farmers market.



Seniors already participating in the CSFP can present their CSFP card.



Seniors must be at least 60 years of age AND have a household income of 185% below federal poverty level.



Senior must not have received vouchers yet this year.



Newly enrolled senior will receive one booklet of ten, \$5 coupons.



Seniors shop the authorized farmers market with their coupons to purchase fresh fruits, vegetables, herbs, or honey.





# Current Work: Local Food & Councils



<https://www.ams.usda.gov/selling-food-to-usda/lfp/acap>



<https://extension.usu.edu/hsi/utahfoodsecuritycouncil>



<https://boards.utah.gov/s/board/a018y0000047HALAA2/local-food-advisory-council>



# Healthy Places Index

<https://map.utah.healthyplacesindex.org/>

Tools

Enter a location...

## View Indicators

Map individual indicators, including HPI indicators and our extensive decision support layers.

[Learn more >](#)

## HPI Indicators

Education

Transportation

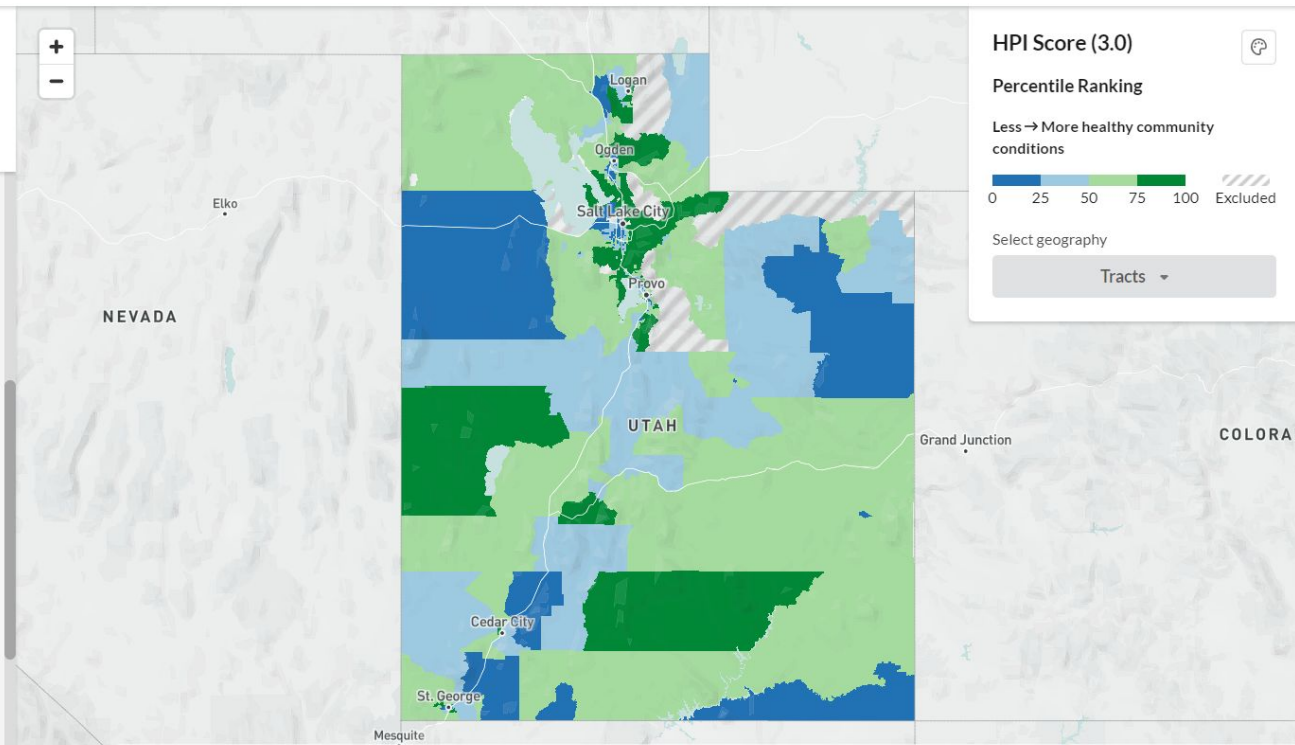
Housing

Social

Clean Environment

Neighborhood

Healthcare Access



# Healthy Places Index

## Tools

### Explore

Get Community Conditions

Explore the Utah Healthy Places Index score to examine neighborhood measures linked to health outcomes, and view key indicators of diversity and equity.

Filter by Indicator

Filter the map to find communities that meet your criteria. The map can be filtered by HPI score, HPI indicator, and most decision support layers.

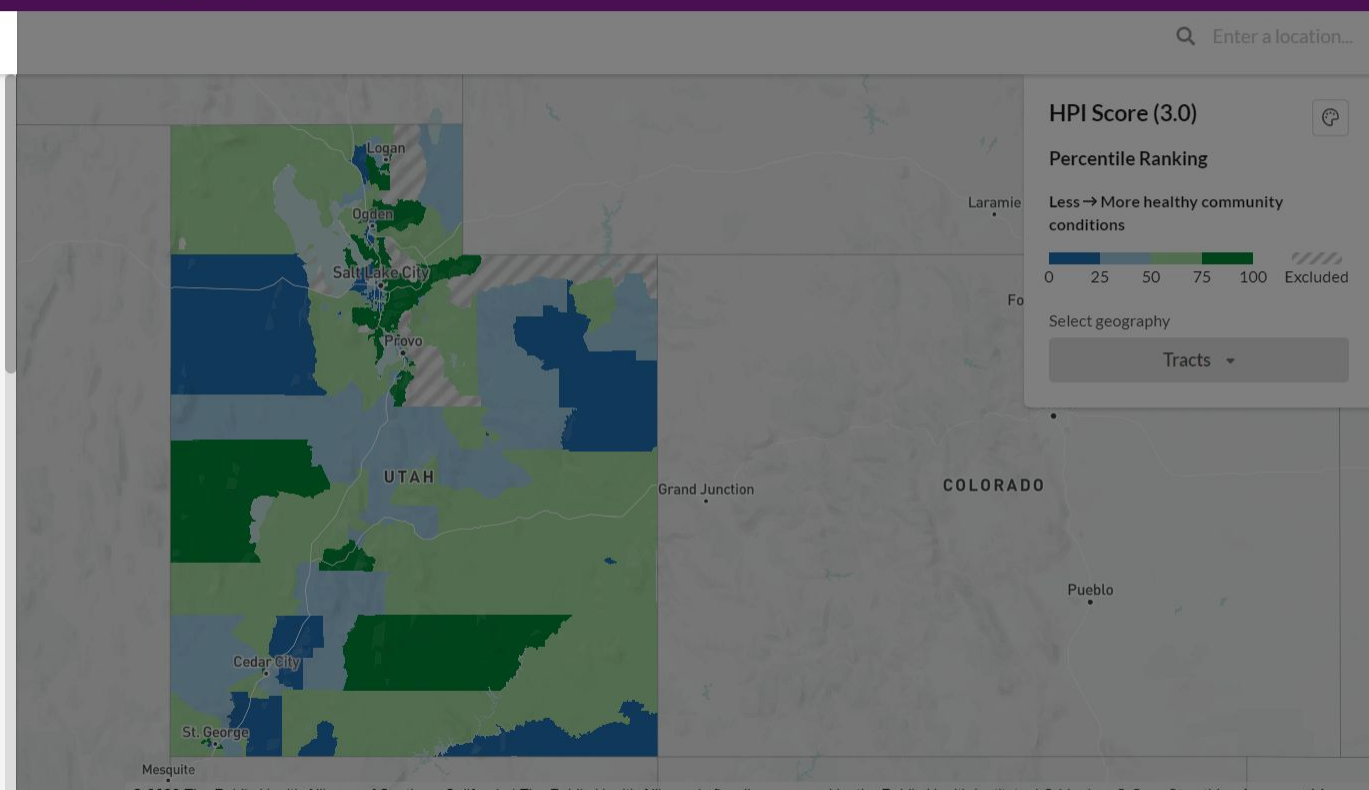
Filter by Race/Ethnicity

Filter the map to find communities of a specific race, ethnicity, and/or ancestry. Filter thresholds can be set by proportion or total population.

Policy Opportunities

Discover policy opportunities to improve community health outcomes.

### View data



# Healthy Places Index

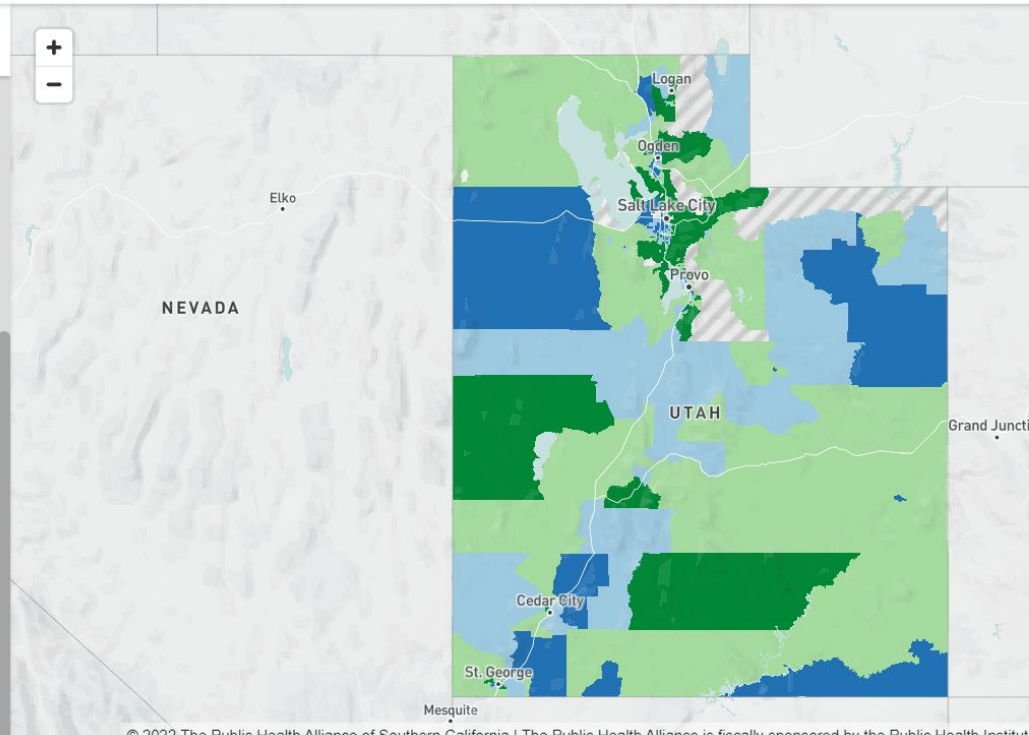
Tools

Enter a location...

### Supermarket Access

Policy Opportunities to Address the Health Impacts of this Indicator:

- Food Access
  - Collect, Analyze and Use Data to Advance Equity in Programs and Policies
  - Develop Community Economic Capacity
  - Plan Communities to Support Healthy Food Access
  - Increase Healthy Food Options
- References



### HPI Score (3.0)

Percentile Ranking

Less → More healthy community conditions

0 25 50 75 100 Excluded

Select geography

Tracts

# Slides for Shawn Begay





# Equitable Access to Nutrition in Utah

Greg Macfarlane  
Alisha Redelfs  
Lori Spruance

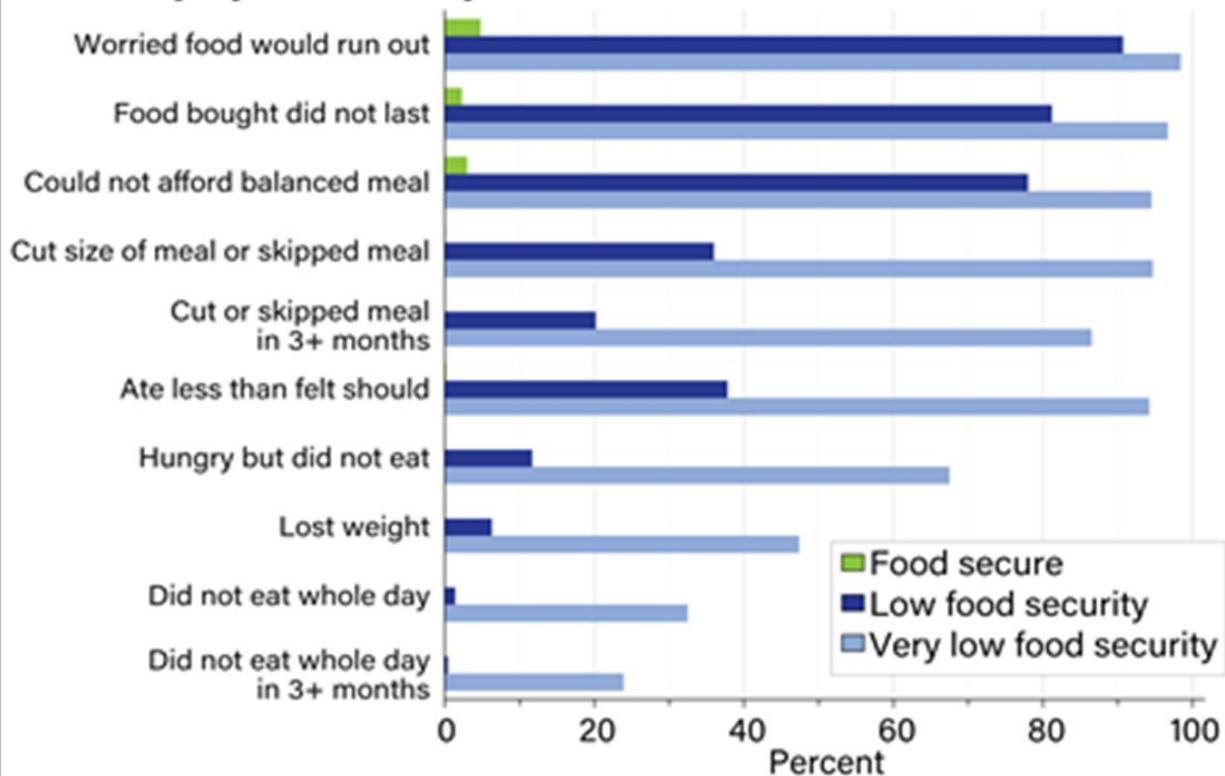


# Food Insecurity Definition

- USDA defines food insecurity as “a household-level economic and social condition of limited or uncertain access to adequate food”
- Adequate- this means that the food must satisfy dietary needs (i.e. nutritious)



## Percentage of U.S. households reporting indicators of adult food insecurity, by food security status, 2021



Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2021 Current Population Survey Food Security Supplement.



# Dietary Guidelines for Americans

## A healthy eating pattern includes:

- Variety of vegetables (2-3 cups per day)
- Fruits, especially whole fruits (1.5-2 cups per day)
- Grains, at least half of which are whole grains
- Fat-free or low-fat dairy
- Variety of protein foods
- Oils

## A healthy eating pattern limits:

- Saturated fats (consume less than 10% of calories per day from sat fat)
- Added sugars (consume less than 10% of calories per day from added sugar)
- Sodium (consume less than 2300 mg per day of sodium)



# How Are Americans Stacking Up?

- 12.3% of US adults met fruit recommendations
- 10.0% of US adults met vegetable intake recommendations
- US adults consume 270 calories of added sugar each day; versus the recommended 200 calories
- American adults consume an average of 3,400 mg of sodium per day, compared to 2,300 mg recommended





# What Contributes to Food Insecurity?

- Income
- Employment
- Race/ethnicity
- Disability
- Neighborhood conditions (e.g. limited number of full service supermarkets)
- Transportation options



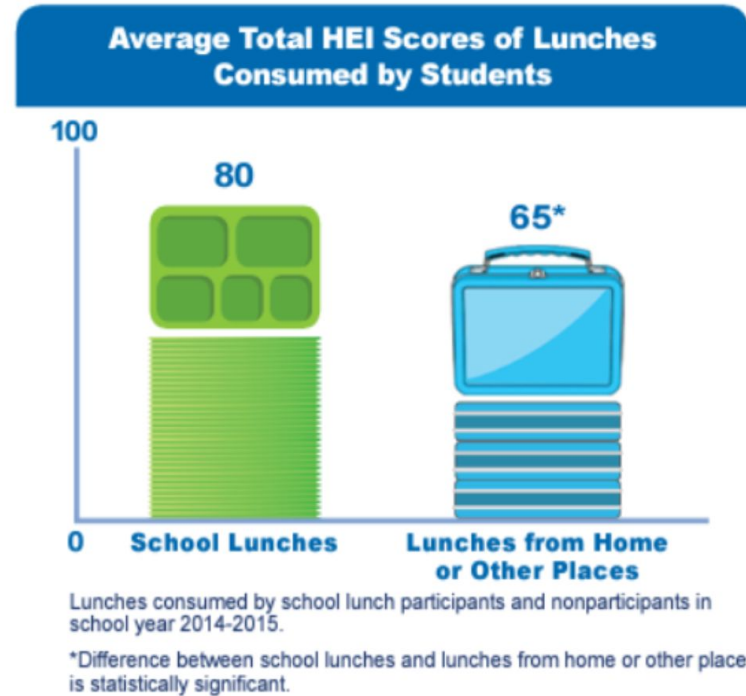
# Reducing Food Insecurity

**Affordability + Accessibility**



# School Meals

- Affordable and accessible
- Demonstrated to reduce food insecurity
- One of the few places where government programs have tried to match to the dietary guideline



# Nutrition Policy

\* Kids eat between 35-40% of their daily calories at school

We've had success improving the school nutrition environment through school meals

- Breakfast after the Bell Programs (Start Smart Utah, HB222)
- Healthy School Meals for All (other states)

We need to consider the environment outside of schools in order to address the total diet, like grocery stores, and make these affordable and accessible

Are there policy options that will work here?



# How do we measure the Nutritional Environment?

NEMS | Nutritional Environment Measures Survey

[TOOLS](#)

[PUBLICATIONS](#)

[SHOWCASE](#)

The NEMS Tools are observational measures to assess the community and consumer nutrition environments in food outlets, specifically stores, corner stores and restaurants. The measures focus on availability of healthful choices, prices and quality.

## NEMS-S

[SURVEY](#)  
[PROTOCOL](#)  
[SCORING](#)  
[RATIONALE](#)  
[PROJECTS](#)  
[ARTICLE](#)

## NEMS STORE MEASURES

There are 11 measures of store nutrition environments which assess the availability and pricing differences between healthier and less-healthy options: milk, fresh fruits and vegetables, ground beef, hot dogs, frozen dinners, baked goods, beverages (soda/juice), whole grain bread, baked chips, and cereal.

The NEMS-S tool has been updated since its original publication. The original published version of the instructions and the store measures can be accessed by clicking on this link: [NEMS-S survey and instructions](#).

The updated version of the NEMS-S tool has an added measure of cereal as well as some changes to the layout.



# NEMS-S Data Collection

12:29

Availability		Price	Quantity for that price	Unit	
Yes	No	\$ _ . _	#	pc	lb
<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="radio"/>

11. Total types of fruits (count # of YES responses under Availability)

12:29

Fruit A

1. Does this store sell fresh fruit?

Does this store sell any fresh organic fruit?

STORE_ID	Store (STORE_NM21)	Store Address (STORE_ADD)	Date Completed MM/DD/YYYY (DATE_C)	Initials of Completer (ASSIGN_C)	Notes on this store (NOTES_SHEET)
<b>Group 1</b>					
UT-001	Ivanov's Market	E Main St, Santaquin, UT 84655	04/16/2021	OH	
UT-002	Macey's	110 N 400 E St, Santaquin, UT 84655	4/16/2021	OH	
UT-003	Grandpa V's Family Fruit stand	365-389 E Main St, Santaquin, UT 84655	4/16/2021	OH	Not open because it's a farmers market
<b>Group 2</b>					
UT-004	Rowley' Red Barn	901 S 300 W St, Santaquin, UT 84655	5/14/21	AB	
UT-005	Family Dollar	252 W Main St, Santaquin, UT 84655	5/14	AB	
UT-006	Carnes Grocery Store	Goshen, UT 84633	5/14/21	AB	No longer in business- permanently closed
<b>Group 3</b>					
UT-007	Riley's Farm Fresh	970 E 400 N, Genola, UT 84655	3/24/2021	AB	Not a grocery store
UT-008	Walmart Supercenter	1052 S Turf Farm Rd Payson	3/24/2021	AB	
UT-009	El Pueblo Market	1392 Turf Farm Way, Payson, UT 84651	3/24/2021	AB	
<b>Group 4</b>					
UT-010	Smith's	632 South 100 West, Payson, UT 84651-2864	04/24/21	KMM	
UT-011	El Mercadito	101 N 100 W, Payson, UT 84651	04/24/21	KMM	
UT-012	El Centro De Payson Mexican Store	3 N Main St, Payson, UT 84651	04/24/21	KMM	
<b>Group 5</b>					
UT-013	Gin's Corner Market	805 East 100 North, Payson, UT 84651-2346	4/9/2021	OH	Convenience store
UT-014	Payson Market	586 North Main Street Suite D, Payson, UT 84651-3428	4/9/2021	OH	
UT-015	Stokes Salek Inc	795 UT-198, Salem, UT 84653	4/9/2021	OH	
<b>Group 6</b>					
UT-016	Walmart Supercenter	1206 Canyon Creek Pkwy, Spanish Fork, UT 84660	03/27/2021	KMM	
UT-017	Walmart Supercenter	898 S 2550 E St, Spanish Fork, UT 84660	3/20/2021	KMM	
UT-018	Good Earth	863 N 700 E, Spanish Fork, UT 84660	03/06/2021	KMM	Finished before the second round of training
<b>Group 7</b>					
UT-019	Macey's	187 E 1000 N Spanish Fork	03/31/2021	AB	
UT-020	Walmart Supercenter	660 S 1750 W, Springville, UT 84663	04/20/2021	AB	
UT-021	Smith's	1117 W 400 S, Springville, UT 84663	03/31/2021	AB	

+ ☰ Utah County Stores by Group Re Measure Salt Lake County Stores San Juan County Stores





# NEMS-S

Availability

Healthy vs.  
Unhealthy

Quality

Cost

Compare to  
Market Basket



# Market Basket Score (USDA Thrifty Food Plan)

- A predetermined set of items to measure affordability (e.g. what goes into a basket of groceries)
- Determined for a family of four
- Reported in dollar amounts, so the higher the score the more expensive a store is

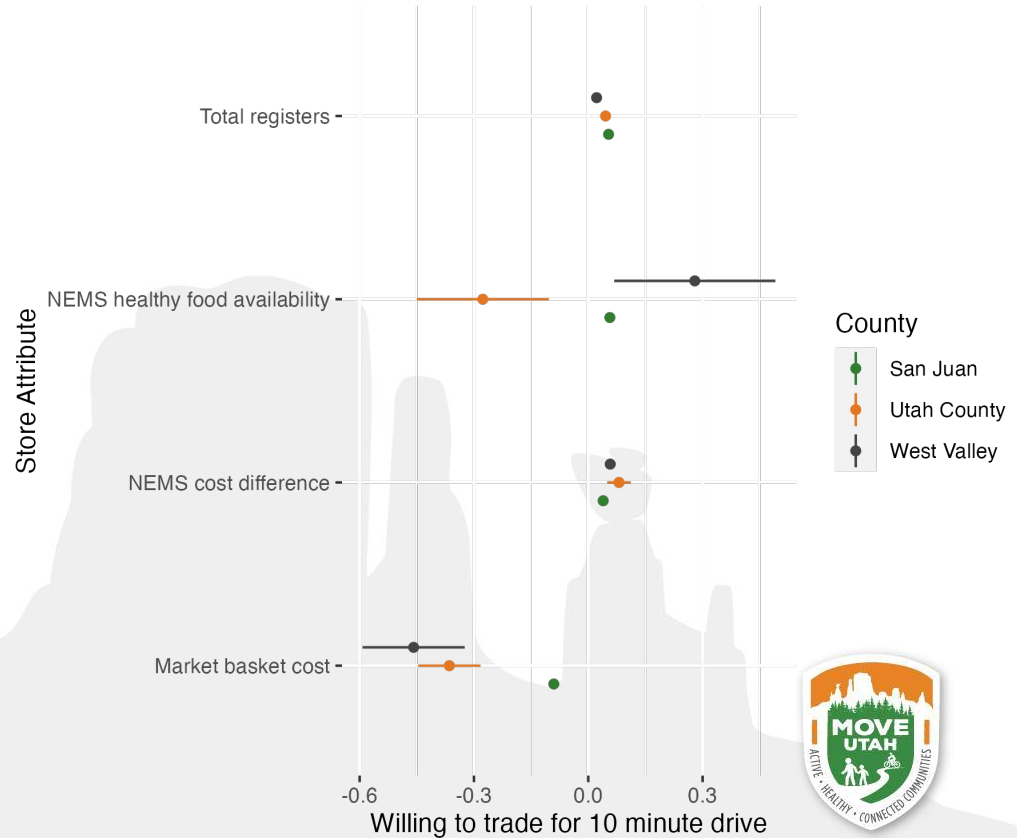


# The problems measuring access

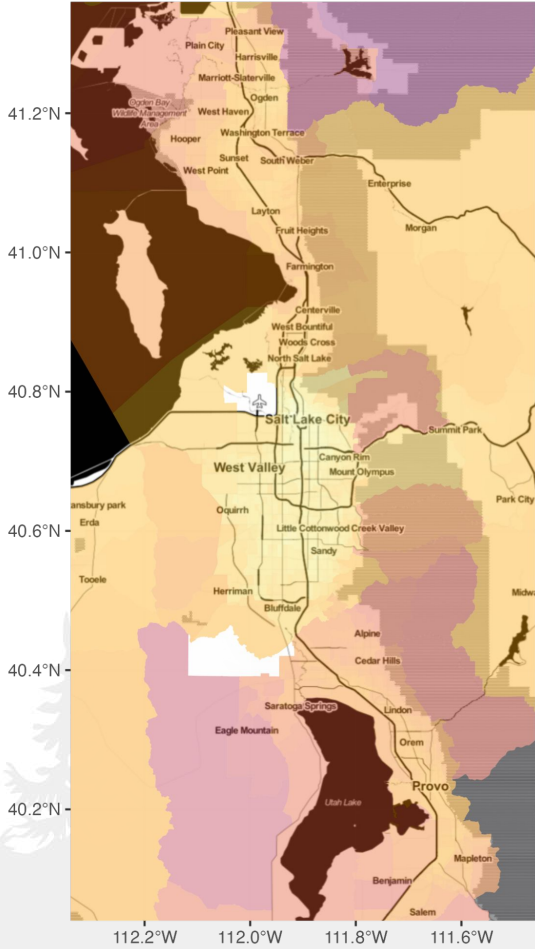
- Arbitrary distances
  - How far?
  - By what mode?
- Ignore preferences
  - Brand
  - Availability of produce
  - Cost



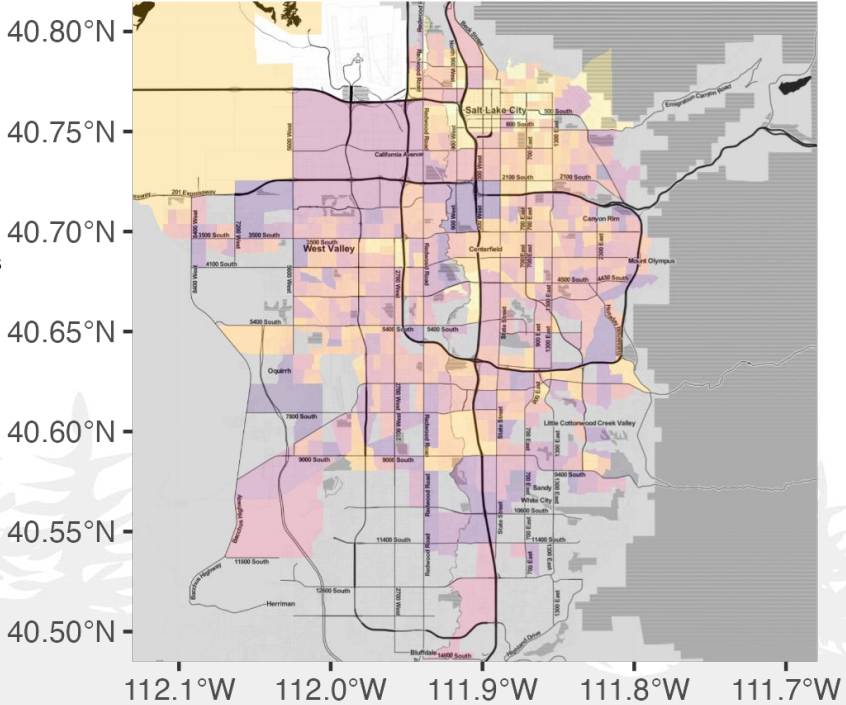
# Illuminating preferences with mobile data



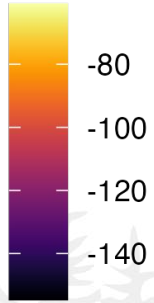
# Total Access - All Modes



# Total Access - No Cars



Access without car



# Model Scenarios

Scenario	Access Difference	Weighted Population	Monetary Benefit
New Store in West Valley	15.23	24083	\$2,685,207
Improved Dollar Store	7.37	11656	\$1,299,602
Improved Transit	0.063	106.4	\$11,860
San Juan Improved Store	.0317	48.18	\$5,372
Utah County Improved Store	.809	1072.6	\$119,588







# Move Utah

ACTIVE, HEALTHY, CONNECTED COMMUNITIES

---

Panel Discussion