WISCONSIN-MADISON

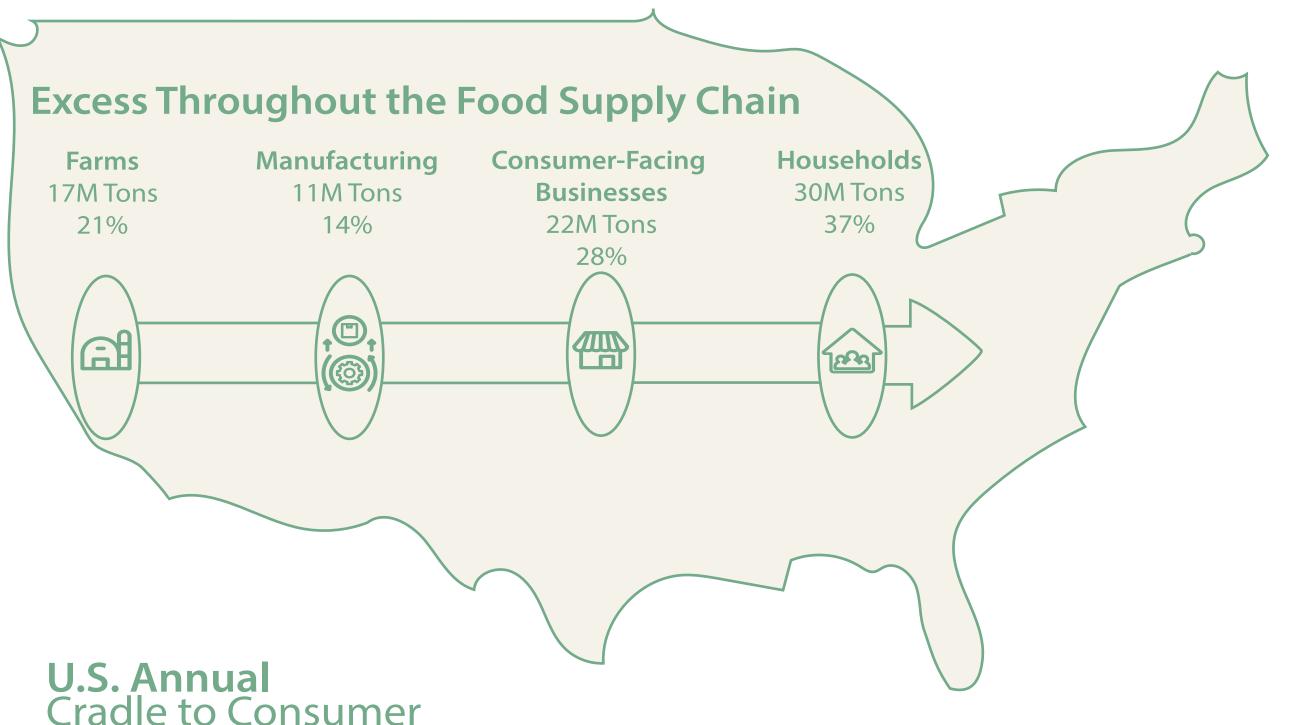
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Background

Figure 1: Food Excess in the United States

U.S. (2019): 229M Tons of Food Produced for Human Consumption 80M Tons (35%) Unsold or Uneaten: 54M Wasted - 23M Recycled - 3M Donated



Food Supply Chain Total | Food Loss & Waste (FLW) %

- 140M ac of agricultural land use 664B kWh energy use
- 16% (FLW)
 5.9T gal freshwater use
 20% (FLW)
 170M MTCO₃e

Environmental Impacts:

5.9T gal freshwater use
 170M MTCO₂e
 16% (FLW)

Food Disposal

- U.S.: Among the largest global municipal solid waste (MSW) generators
- MSW landfills = 3rd largest source of U.S. anthropogenic methane emissions
- FLW = 24% of U.S. MSW landfills

U.S. Food Access:

Dane County:

City of Madison:

2021: 10.2 % (13.5 million) of U.S. households were food insecure 2001-2016 trends: food insecurity rates for Black & Hispanic households were at least twice that of White households

Figure 2: Local Food Excess & Access

• 2020: MSW landfill at full capacity in 10 yrs

were food insecure in Dane County

34% organics (20.7% wasted/scrap food)

~40% of food waste is from households

• 2016: 11.8% of all people and 17.5% of children

• 2021: 10,000 tons of food scraps collected annually

Methods

Dane County Case Study: Compile local food excess and food access datasets, comprehensive review of tracking methods for recomendation. Compare the Dane County foodscape to resilient regional models, with insight from COVID-19 supply chain & infrastructure gaps.

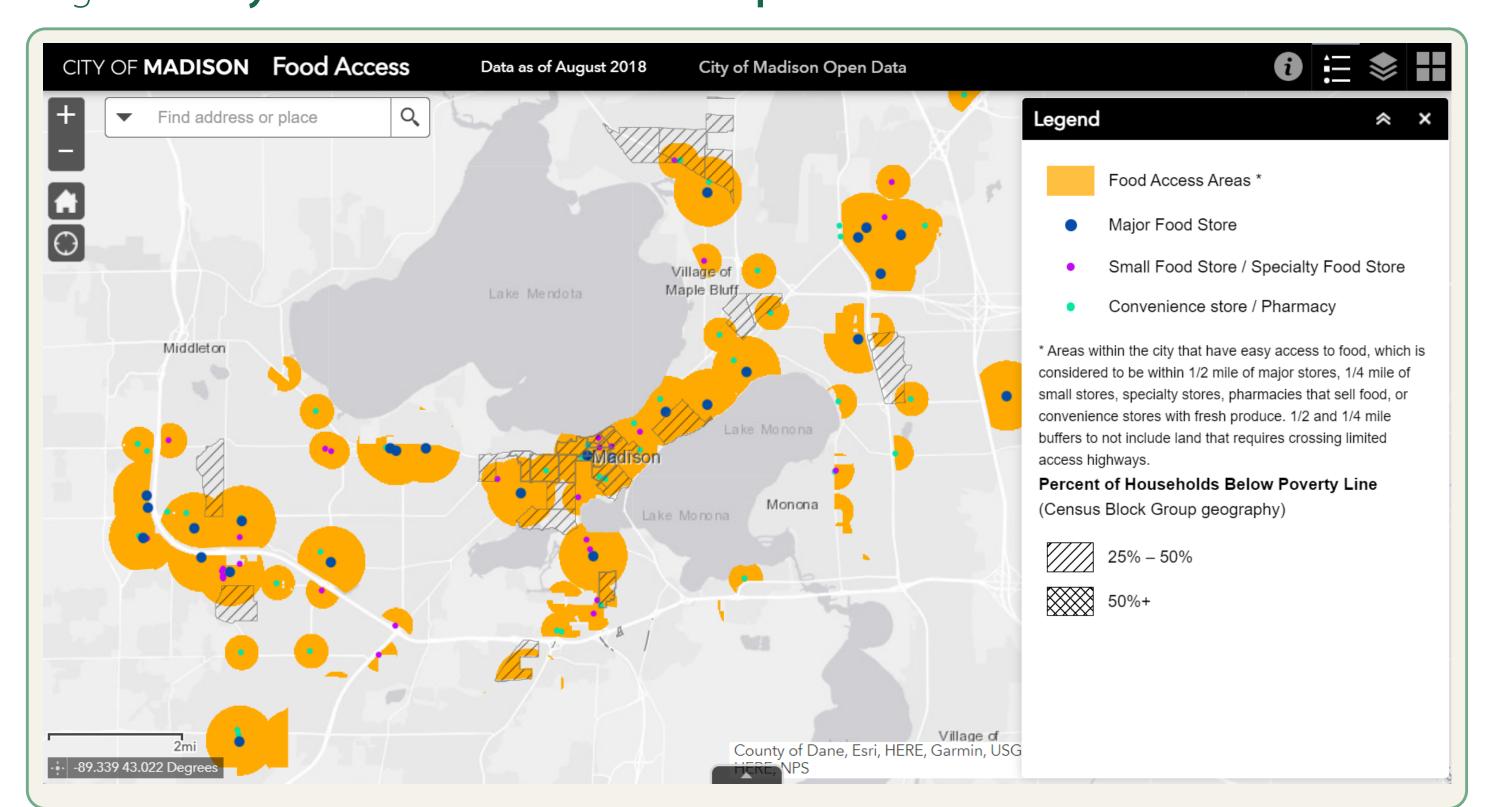
Participatory Mapping: Partner with local organizations for data input, conduct interviews investigating organizational experience and barriers to food excess reduction and food accessability. Survey stakeholder groups at large for regional data, resources, and interest in local collaboration. Data to be aggregated and democratized on public website (figure 4).

Campus & Community Collaboration Initial partner discussions and survey design with Env St 600, capstone course. Partnered with Madison Area Food Pantry Gardens, Feeding the Youth, & Slow Food UW to examine effects of gleaning, food processing, and local recovery programs. Final interviews and surveys to follow. Community narratives to be added as multimedia to the project website.

Figure 4: wifoodaccess.org Food Access Locator Community Resources *Interactive cartography feature (see below) **7** Website overview Campus/ community Food excess & acces Env St 600 capstone Campus & community partner interviews & project overviews narrative projects Env St 600 capstone Agroecology public Acknowledgments Community resources Glossary Additional studer Documentation 8 Wisconsin Services UW Madison Campus Restaurant & Retail City of Madisor Food Banks & Pantries Producer Markets Dane County Southern WI Producers Dane County Food Collective Madison Area Food Pantry Garden Community Gardens Wisconsin The Gardens Network (Dane County EBT Second Harvest Foodbank (S WI) SNAP WIC AmeriCorps (Farm to School) FMNP WI Local Foods Database Double Dollars Food Access Locator* Sheet1: Door Creek Community Legend AmericoreWI Local Foods Sprecher and Cottage **USDA SNAP Store Locations** Dane County The Gardens Network - Sheet1 Southern full tabletopoint *How To Data Portal Food Access Environment Analysis Food Excess Environment Analysis

Outcomes

Figure 3: City of Madison Food Access Open Data



Implications

Geovisualization of food resources is expected to enhance connectivity and collaboration among programs promoting food accessability (re)distribution. With interactive cartographic features providing customized experiences for those with a range of skills and needs. Inclusion of educational and narrative materials are intended to curb hesitancy and stigmatization of recovered food. Case study research will produce foodscape analyses and advanced cartographic tools, similar to figure 3, for added stakeholder insight and planning use.

Local Progress:

- Madison Common Council 2021 resolution:
- Achieve 50% food waste diversion from landfill by 2030
- City of Madison consumer education campaign
- NRDC Food Matters Regional Initiative cohort member

Objectives:

Examine best practices for tracking, redistributing, and reducing excess food resources, while evaluating models for regional food systems resilience and the role of participatory planning.

Project deliverables will include a food access locator tool and food resource guides for local residents, published on wifoodaccess.org (figure 4). Project data will be made avaliable for public analysis, supporting place-based food systems planning.

• **Public website** serving educational, collaborative, and resource location purposes (figure 4)

- Materials supporting consumer education campaigns
- Narrative platform highlighting community initiatives
 Continued work with Env St 600 capstone Fall '23
- **Updated local datasets** and foodscape planning maps (similar to figure 3) for network analysis, complementing stakeholder research:
 - **Metrics:** City of Madison & NRDC Food Matters Regional Initiative
- Feedstocks: Dane County Landfill's upcoming Sustainability Campus
 Collaboration: Dane County Pandemic Food System Study
- Infrastructure: Madison Terminal Market Plan, in addition to
 Locally Grown Vegetable Processing Facility Feasibility Study

Figure 5: Local Food Excess & Access Initiatives



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