Tulane MCH Nutrition Leadership Training Program

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The Research Slice

- Important component of our program
  - For trainees –
    - improves analytic, organizational, people skills
    - also improve communication skills, both verbal & written
  - For faculty –
    - Improves classroom teaching, continuing ed, technical assistance
- Broad view of research –
  - From descriptive epidemiology to program practice
  - Organized way of learning about the world, doing things better
- In the NOFO: "The curriculum must include content and experiences to foster development of leadership attributes. Leadership training prepares MCH nutrition professionals to move beyond excellent clinical or health administration practice to leadership, through practice, research, teaching… "

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Types of trainee experiences

- Classroom learning (in Population Nutrition Assessment)
  - Meredith McDonald – Breastfeeding status of US children by household income and race-ethnicity
  - Rebecca Snyder – The relationship of food insecurity to anxiety among American women
- Shadowing rotations
  - Michaeline Anglemire – SNAP application patterns in New Orleans after the pandemic lockdowns
  - Allison Wareham – Innovations to address school feeding disruptions due to the pandemic
- Research assistantships
  - Emily Dimond – Evaluating interventions to promote healthy eating in Latino restaurants
  - Miguel Lopez – Food insecurity and consumption among children who receive food assistance
  - Meredith McDonald – Assigning carbon footprints to foods in the ASA24 dietary assessment tool.
- Practicum experiences
  - Brandi Stein – Assessing the New Orleans food system during the pandemic
- Dissertation research
  - Miguel Lopez – Food insecurity and linguistic isolation among adult Latinos in the US

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Regional differences in child food insufficiency during the second year of the coronavirus pandemic

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BACKGROUND

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COVID-19 and food access

- COVID-19 pandemic triggered lockdowns throughout the United States in March 2020
  - Lead to economic crisis
  - Individuals and businesses who could not pivot to remote work particularly affected
  - Food access issues reported early on
    - Food shortages = physical access
    - Economic constraints = monetary access

→ Interest in food insecurity

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Measuring "Food Insecurity"

- Food insecurity – households have limited or unstable access to enough food for an active, healthy life
- Measured using an 18-item questionnaire in the Current Population Survey
  - sponsored by USDA, administered by the Census Bureau
- Food insufficiency – a proxy for food insecurity, measured using a single question

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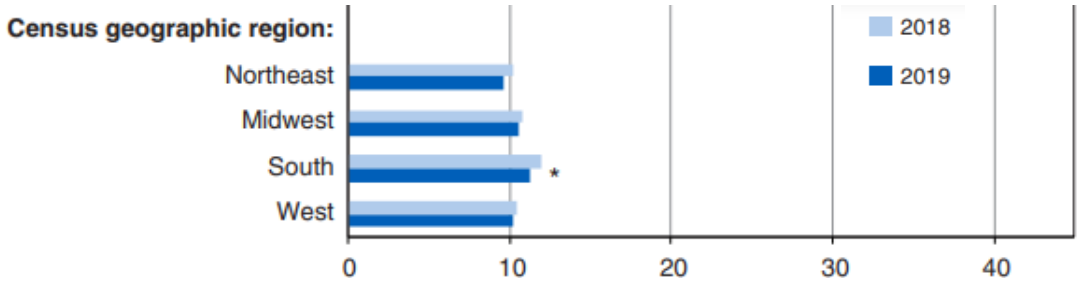
Household food insecurity by region, 2018-19



Source: Coleman-Jensen A, Rabbitt MP, Gregory CA, Singh A. Household Food Security in the United States in 2019. USDA, Economic Research Service, September 2020.

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Goal

To assess regional differences in child food insufficiency in the second year of the COVID-19 pandemic, with a special focus on Deep South states.

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METHODS

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Household Pulse Survey

- 20-minute online survey focused on investigating how the COVID-19 pandemic is affecting U.S. households from a social and economic perspective
- Managed by the Census Bureau in collaboration with several federal agencies (including MCHB)
- Phase 1 launched in April 2020 (data collected weekly between April 23 – July 21, 2020)
  - Ongoing

Source: United States Census Bureau, 2022. Household Pulse Survey: Measuring Social and Economic Impacts during the Coronavirus Pandemic: https://www.census.gov/programs-surveys/household-pulse-survey.html

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Food insufficiency

Household food insufficiency

- "In the last 7 days, which of these statements best describes the food eaten in your household?"
  1. Enough of the kinds of food (I/we) wanted to eat,
  2. Enough, but not always the kinds of food (I/we) wanted to eat,
  3. Sometimes not enough to eat,
  4. Often not enough to eat.

Child food insufficiency

"Please indicate whether the next statement was often true, sometimes true, or never true in the last 7 days for the children living in your household who are under 18 years old. "The children were not eating enough because we just couldn't afford enough food."

1. Often true
2. Sometimes true
3. Never true

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Data & variables

- Household Pulse Survey
  - Phase 3.1 (April 15 – July 5, 2021)
  - Phase 3.2 (July 21 – October 11, 2021)
- Households with children (n=229,246)
- Differences in child food insufficiency and relevant demographic and SES variables
  - Deep South states = AL, GA, LA, MS, SC
  - HHS regions

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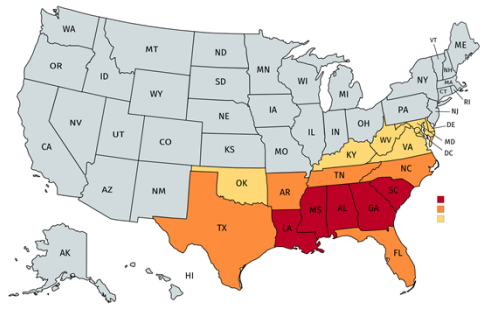
Regional Definitions

Deep South



Source: https://en.wikipedia.org/wiki/Deep_South#:~:text=The%20term%20%22Deep%20South%22%20is,Carolina%2C%20Mississippi%2C%20and%20Louisiana.

HHS Regions

Source: https://www.hhs.gov/about/agencies/iea/regional-offices/index.html

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Statistical analysis

- Prevalence of child food insufficiency by region (Deep South and HHS)
- Multivariable logistic regression models (weighted)
  - **Outcome:** Child food insufficiency (yes/no)
  - **Predictor:** Household living in Deep South state (yes/no)
  - **Covariates:** Age, gender, race/ethnicity, marital status, and educational attainment of respondent; number of children in household; household income-to-poverty ratio (IPR)
    - Model 1: crude
    - Model 2: adjusted by age, gender, and race/ethnicity
    - Model 3: adjusted by Model 2 + marital status and number of children
    - Model 4: adjusted by Model 3 + education and IPR

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RESULTS

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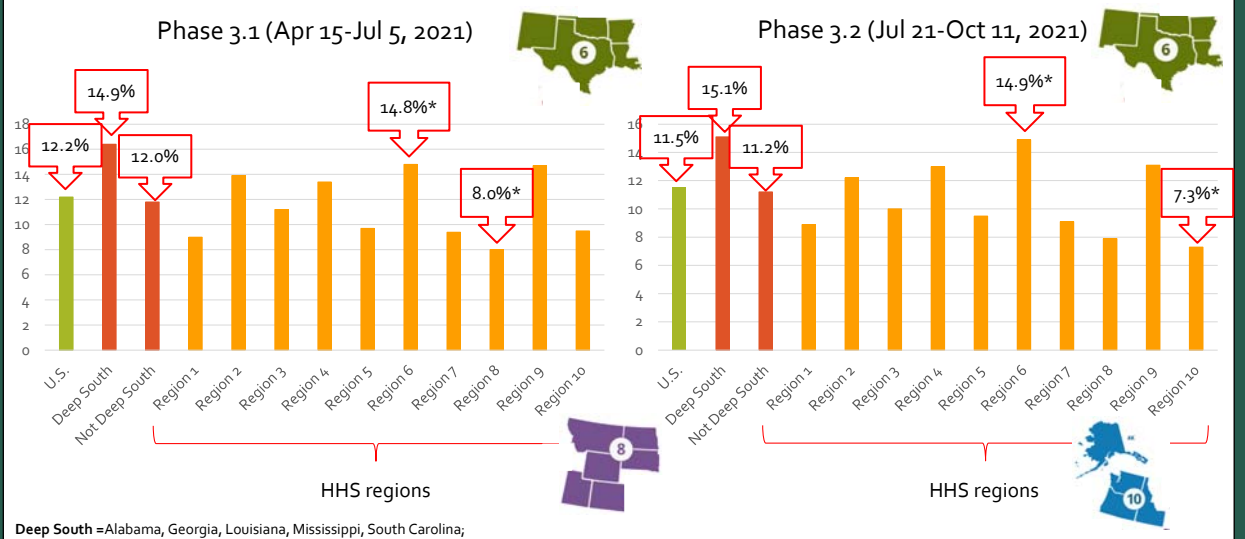
Prevalence of child food insufficiency (weighted)



Deep South =Alabama, Georgia, Louisiana, Mississippi, South Carolina;
***Region 6** = Arkansas, Louisiana, New Mexico, Oklahoma, Texas, **Region 8** = Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming, **Region 10** = Alaska, Idaho, Oregon, Washington

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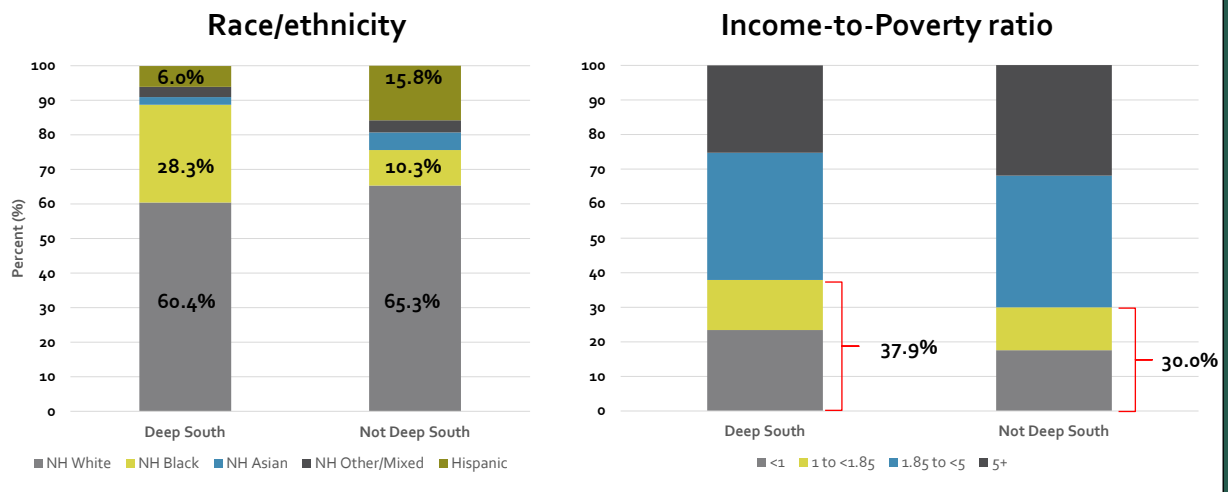
Regional variations in demographic/SES variables (Phase 3.2)



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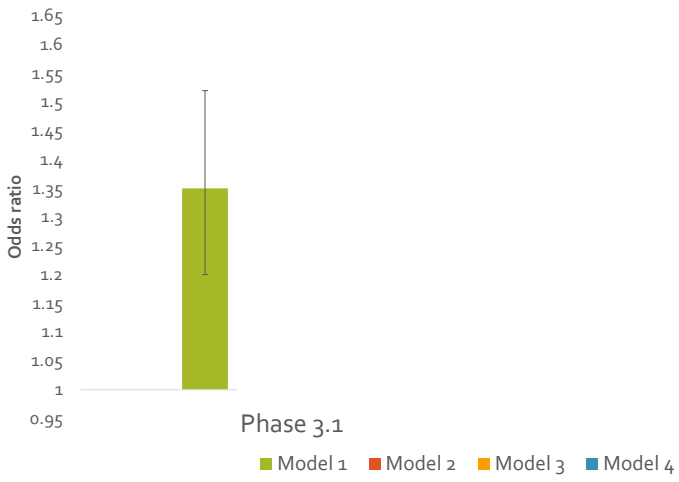
Odds ratios and 95% CIs for child food insufficiency in Deep South



Mode 1: crude; **Model 2:** adjusted by age, gender, race/ethnicity; **Model 3:** adjusted by Model 2 + marital status, number of children; **Model 4:** adjusted by Model 3 + education, IP.R

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Summary

- Regional inequities in child food insufficiency in the 2nd year of pandemic
  - Deep South states had higher rates
    - Odds of child food insufficiency 35% to 46% higher among Deep South households
  - For HHS regions, Region 6 was worst off
- Factors associated with child food insufficiency more prevalent in Deep South
  - Higher rates of poverty, higher makeup of people of color
  - Household heads: less likely to be married, have college degree, employed in last week
- But these factors do not fully explain the differences
  - Unmeasured factors still at play
  - Structural racism, other contextual factors?

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Next steps

- Abstract submitted to American Society for Nutrition annual meeting (June 2022)
- Paper planned for *Preventing Chronic Diseases*
  - Feedback welcomed!
- Subsequent research possibilities:
  - Can we include measures of structural racism in the analysis?
  - Examination of other contextual factors
- Implications for programs & policies
  - Results relevant to MCH programming → nutritionist role in this
  - Continued support for child food assistance

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Acknowledgements

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THANK YOU!

Questions? Email us at:

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