

# U.S. Food Insecurity and Impacts



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# Overview

Food Insecurity is thought of as a problem that undeveloped countries struggle with and it's presence ignored in the U.S.

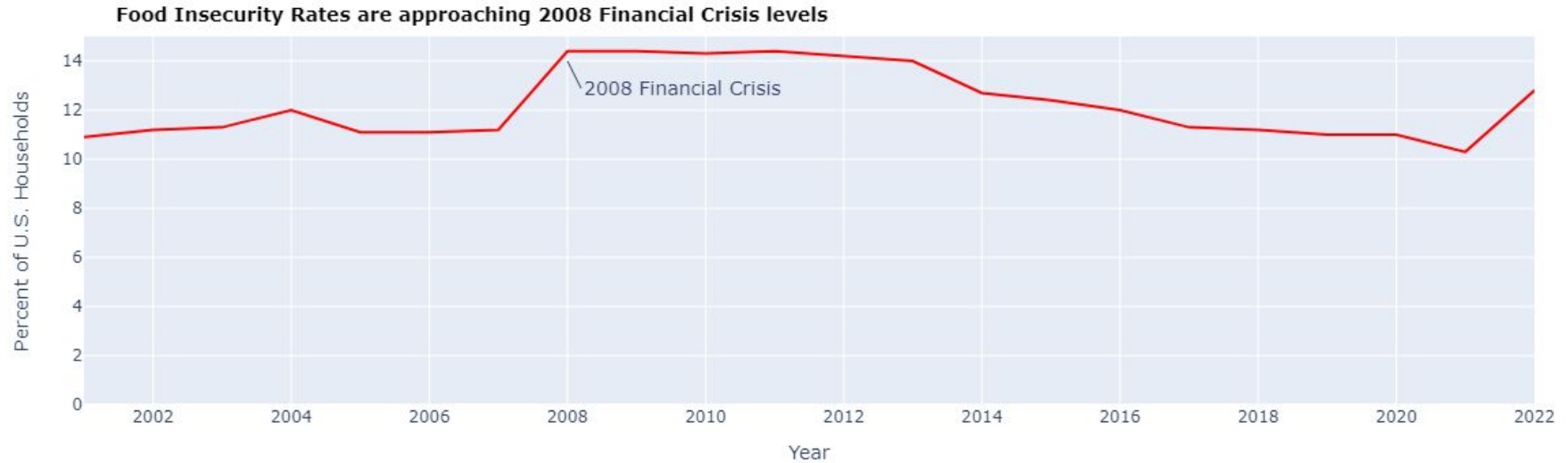
Do the United States of America still struggle with Food Insecurity and what are the impacts on people as they grow?

High Food Security	No limitations related to food access or availability
Marginal Food Security	Concern that food may run out before ability to afford more
Low Food Security	Reduced variability, quality, or desirability of available food
Very Low Food Security	Disrupted eating patterns and reduced intake

Treated as 'Food Insecure' in studies

# Prevalence

Households in Low or Very Low Food Security



2021 held the lowest percent of Food Insecure Households for the past 20 years near 10%, but 2022 is approaching the 2008's record at around 14.2%

# Prevalence

2021 Food Insecurity by State and Age

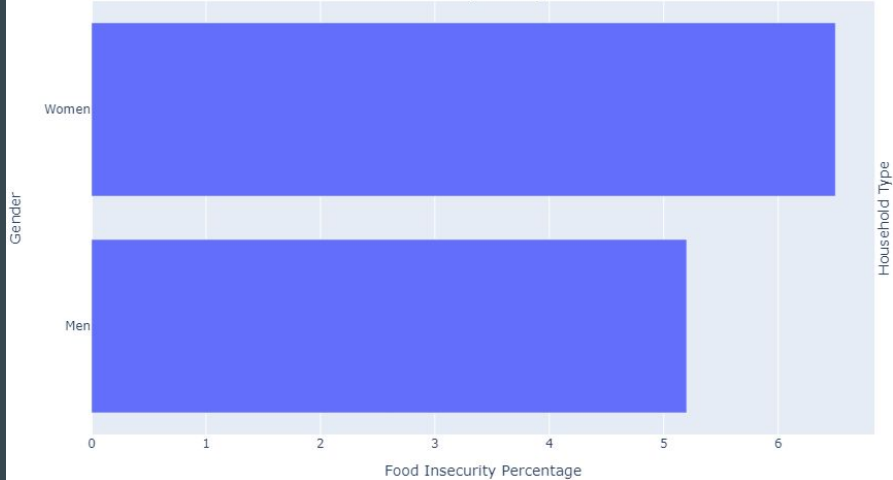
**Of the age groups, children lead in food insecurity, followed by adults, and then adults aged 50+**



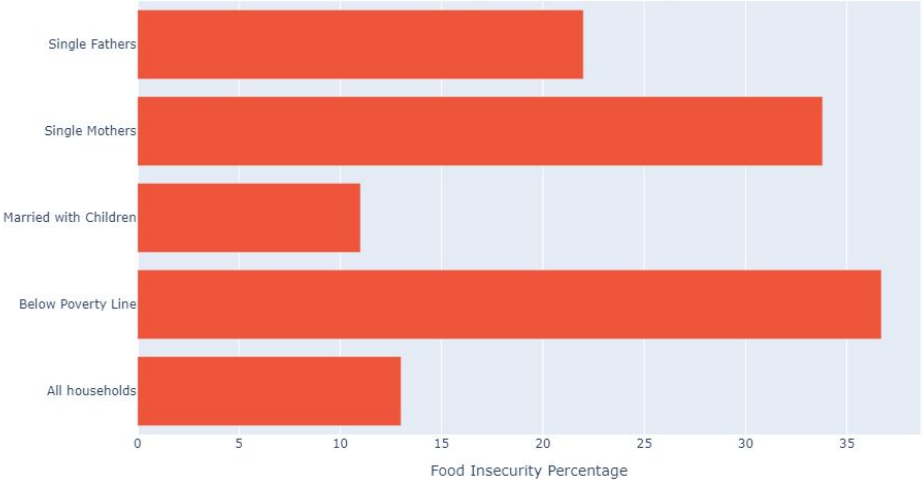
Arizona, Louisiana, Mississippi, New Mexico, Oklahoma, and Texas have the highest child food insecurity percentages

# Gender and Poverty Connection

2022 National Gender and Household Comparison  
**Women, by statistical significance, have a higher rates of Food Insecurity than men.**  
Food Insecurity Rate by Gender



**Single mother and impoverished households lead in Food Insecurity rates**  
Food Insecurity Rate by Households Types

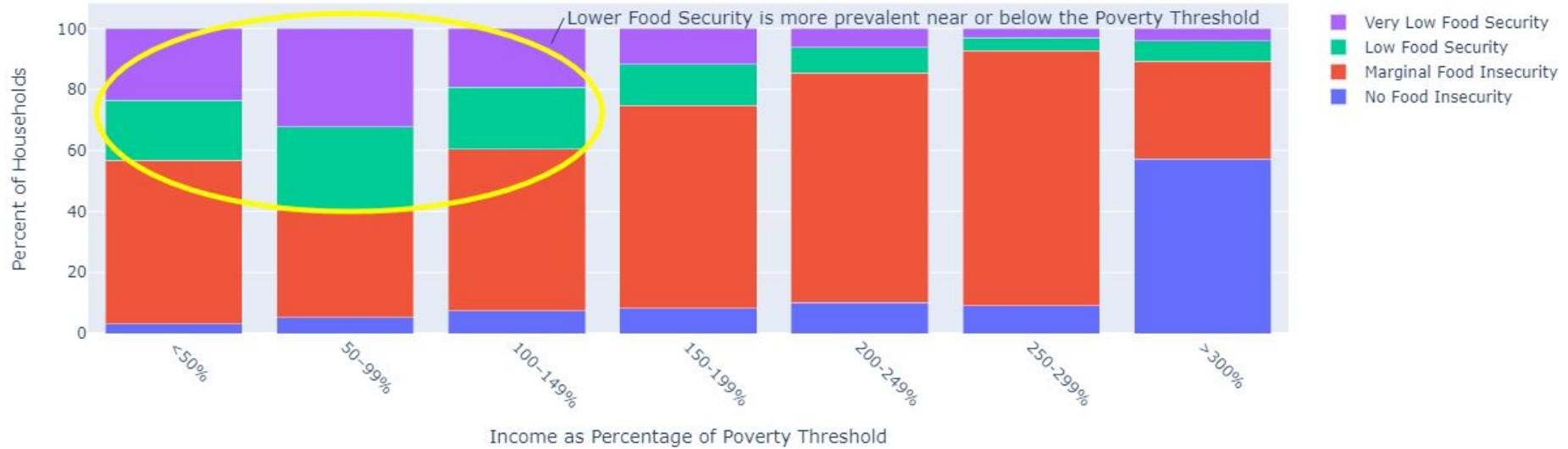


Women	6.5%
Men	5.2%

Single Mother Households	33.8%
Single Father Households	22%
Below Poverty Line Households	36.7%

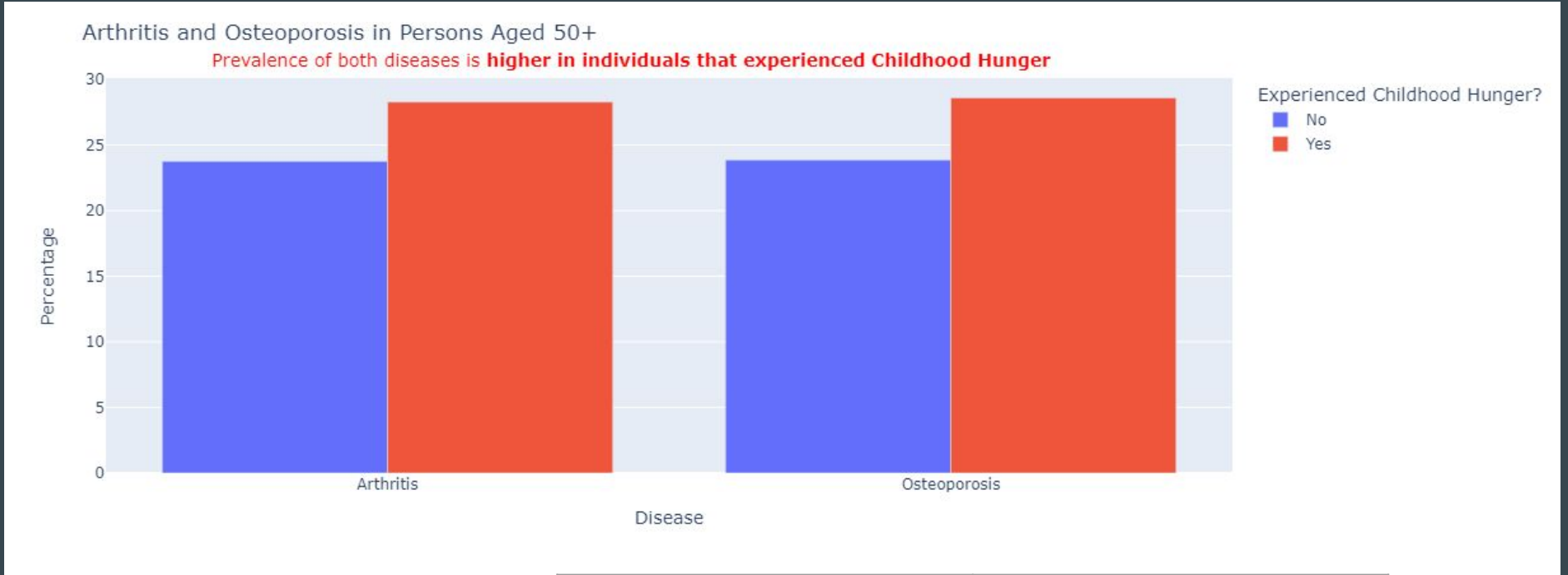
# Gender and Poverty Connection

2001 - 2011 Prevalence of Food Insecurity by Income Poverty Thresholds



Grouping households by income reveal a connection to the poverty threshold. Income is expressed as a percentage of Poverty Threshold since each State has its own Poverty Threshold to help account for unique Costs of Living

# Later Outcomes in Life

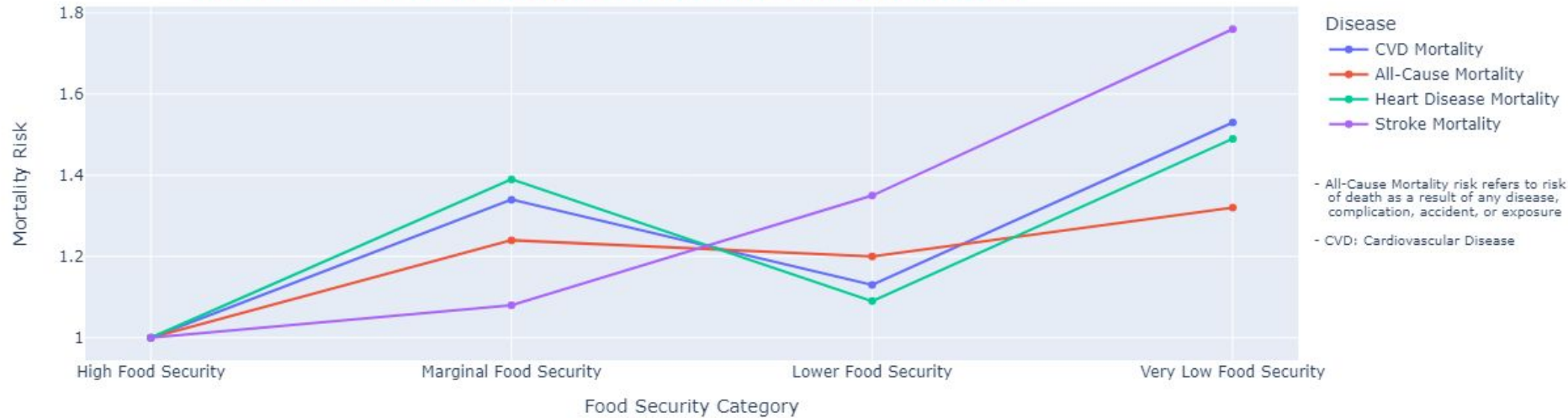


	Arthritis	Osteoporosis
Childhood Hunger Yes	28.27	28.59
Childhood Hunger No	23.86	23.86

# Later Outcomes in Life

Mortality Risk across Food Security Categories for Common Diseases in Persons Aged 40+

Mortality Risk for all four diseases **increase** in groups lower than High Food Security



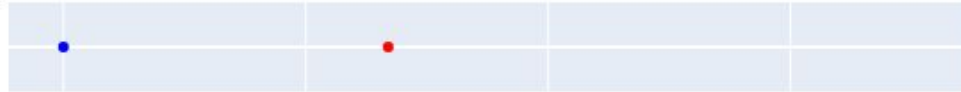
Mortality Risk measures the probability of death caused by the disease in each food security group relative to their probability of death caused by the disease in the High Food Security group



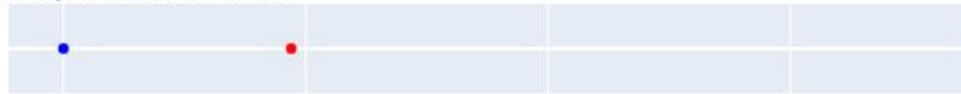
# Later Outcomes in Life

Odds Ratios of Mental Health Diagnosis in Persons Aged <18

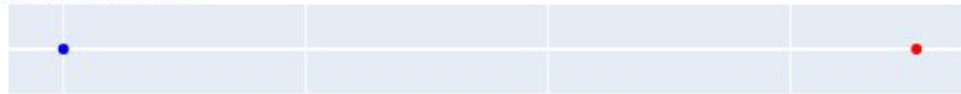
Odds of Suicidal Ideation diagnosis is **2.7 times more likely among the Food Insecure**  
Depression



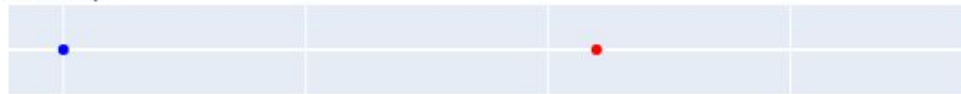
Anxiety/Panic Disorder



Suicidal Ideation



Poor Sleep



Odds Ratio

Food Secure ●  
Food Insecure ●

Odds Ratios are used to compare the odds of one group being affected relative to another group's odds of being affected.

Odds are calculated by dividing the probability of an event occurring by the probability of it not occurring

# Data Sources/Code Appendix:

Github: <https://github.com/d-ev-craig/DATA608/tree/main/Major%20Assignments/Story%206>

MMG2023 - Overall & Children by State <https://www.feedingamerica.org/research/map-the-meal-gap/by-county>

CDC Household Pulse Survey - Men v Women

[https://www.cdc.gov/nchs/products/databriefs/db465.htm#section\\_1](https://www.cdc.gov/nchs/products/databriefs/db465.htm#section_1)

<https://www.cdc.gov/nchs/data/databriefs/db465-tables.pdf#1>

ERS - Long Term Trends of Food Scarcity Prevalence

<https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/#trends>

Census - Households that experienced food scarcity last 7 days

[https://www.census.gov/data-tools/demo/hhp/#/?s\\_state=](https://www.census.gov/data-tools/demo/hhp/#/?s_state=)

Census - Population Counts -

<https://www.census.gov/data/tables/time-series/demo/popest/2020s-state-total.html>

# Data Sources/Code Appendix:

Link between Food Insecurity and Poverty

NCBI - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4096937/>

# Data Sources/Code Appendix:

Effects of Food Insecurity Later in Life

JAHA - Effect of Food Insecurity on CVD and mortality -

<https://www.ahajournals.org/doi/full/10.1161/JAHA.119.014629>

springer - Effect of Food Insecurity on Diabetes - <https://link.springer.com/article/10.1007/s11606-007-0192-6>

JAH Adolescent Health - Poorer Mental Health -

[https://www.jahonline.org/article/S1054-139X\(19\)30419-7/fulltext](https://www.jahonline.org/article/S1054-139X(19)30419-7/fulltext)

CDC - Adolescent Dietary Behavior and Grades -

[https://www.cdc.gov/healthyschools/health\\_and\\_academics/health\\_academics\\_dietary.htm](https://www.cdc.gov/healthyschools/health_and_academics/health_academics_dietary.htm)

NCBI - Long Term effect on Arthritis and Osteoporosis -

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8021205/#:~:text=The%20multivariate%20analysis%20revealed%20that,adults%20who%20did%20not%20experience>