

# Food Insecurity & Mental Health in Virginia

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**Eat Smart • Move More**  
Virginia Cooperative Extension • Family Nutrition Program



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# ACKNOWLEDGMENTS

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# Mental Health & Food Security Report

## OVERVIEW

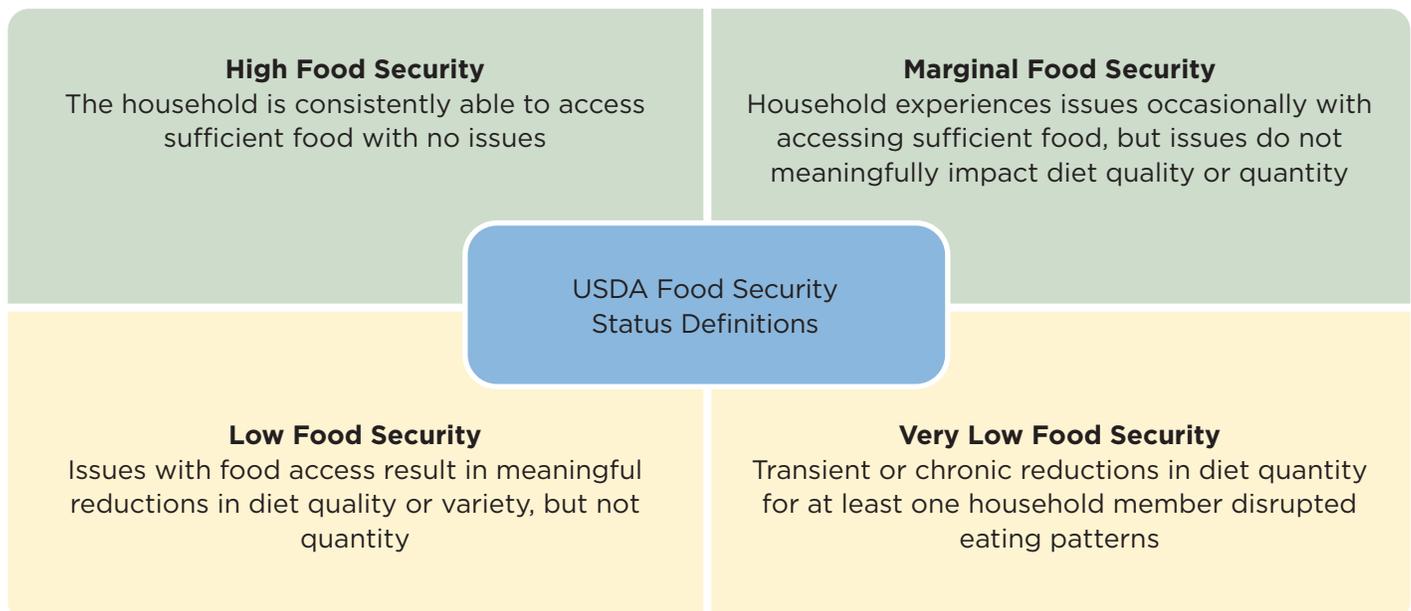
Nationally in 2020, 35.3% of households with an income below the federal poverty level were food insecure.<sup>1</sup> Food insecurity is associated with increased stress and mental illness, all of which were also exacerbated by the COVID-19 pandemic. The burden of food insecurity often disproportionately impacts mothers.<sup>1,2</sup> Additionally, mothers are also at a greater risk for adverse mental health outcomes. Disparities in food security status and mental health are even greater for mothers who identify as people of color.<sup>1,3,4</sup> A survey was conducted to assess the physical and mental health status of Virginia mothers experiencing food insecurity.

## METHODOLOGY

A food security and mental health survey was developed by researchers at Virginia Tech and George Mason University. The survey asked respondents about socio-demographic characteristics, food security status, and mental and physical health. Definitions of the different levels of food insecurity are described in Figure 1. Food security status was assessed using the USDA Economic Research Service (ERS) Household Food Security Module questions. Each construct of mental and physical health was measured using previously validated scales. The survey was initially pilot-tested with a sample of fifty respondents.

### Figure 1: USDA Food Security Status Levels Defined<sup>5</sup>

The survey, implemented through the online survey platform Qualtrics (Orem, Utah), used existing survey panels and email listservs to reach potential respondents. Eligibility criteria for the survey participation are outlined below. The survey was launched in August 2021.



- Over the age of 18
- Live in Virginia
- Identify as a woman or non-binary
- Have children under the age of 18 living in the household
- Household income below the federal poverty level for the household size
- Identified as having low or very low food security status over the past 12 months
- English-speaking

Survey results were analyzed with data cleaning conducted prior to any formal analysis by Qualtrics and by the research team. Descriptive analysis was conducted by the research team.

## FINDINGS

### Respondents

There were 1028 responses to the survey between August 9, 2021 and October 27, 2021 by individuals who met the eligibility criteria. Respondents had an average household income of \$25,000 and more than half of respondents participated in the Supplemental Nutrition Assistance Program (SNAP). For respondents' highest education level, the largest groups of respondents had graduated high school (39.8%) or some college (31.0%).

**Figure 2: Demographics of Respondents and Households**

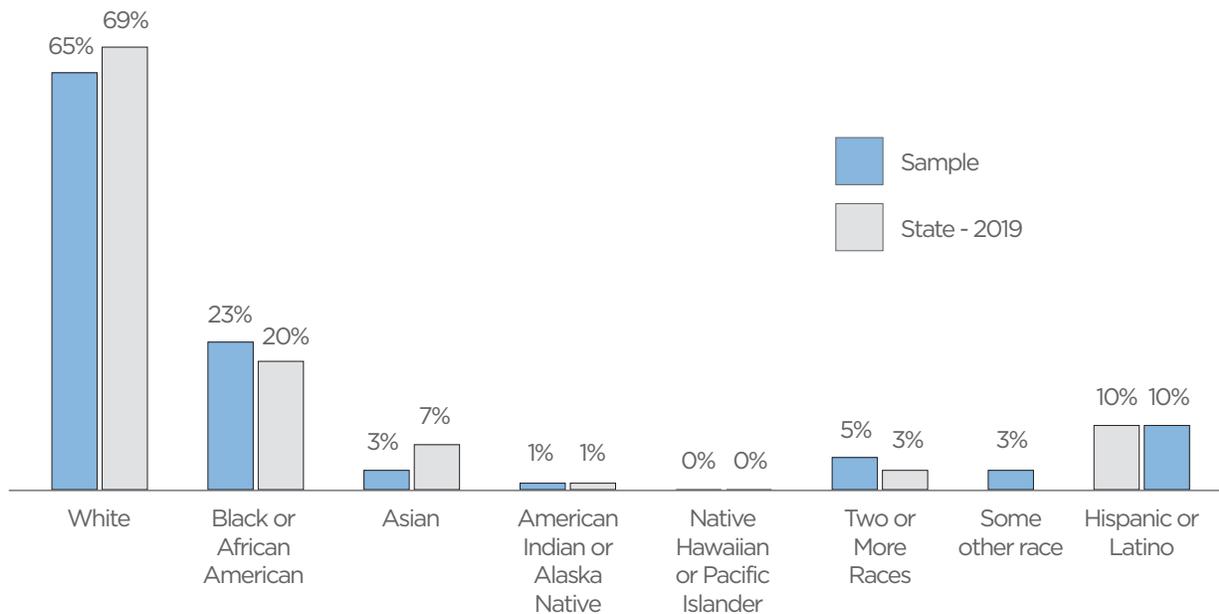


**Average Age:** 34.0 years old  
**Average Child's Age:** 7.6 years old  
**Highest Education Level:**  
 Graduated High School 32%  
 Some College 31%

**Average Number of People in Household:** 4.0  
**Average Number of Children:** 2.0  
**Average Household Income:** \$25,000  
**Assistance Programs:**  
 SNAP 58.9%  
 National School Lunch Program 37.8%  
 Women, Infants, and Children 23.5%  
 Food Banks 27.2%

Respondents were predominantly white (65%). The sample was relatively representative of the state (see Figure 3), though there was a smaller percentage of respondents who identified as White and Asian compared to the state. There was a greater percentage of people who identified as Black and two or more races in the sample than the state average.

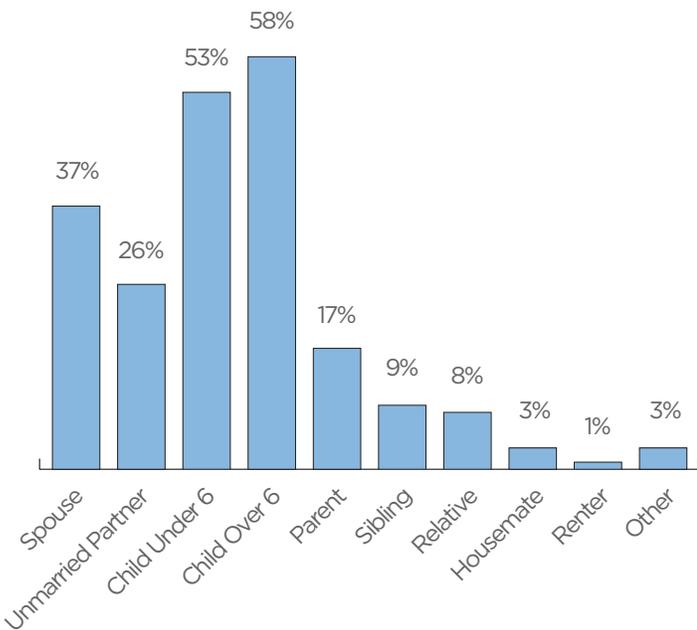
**Figure 3: Race and Ethnicity of Respondents Compared to State Average (n=1028)<sup>6</sup>**



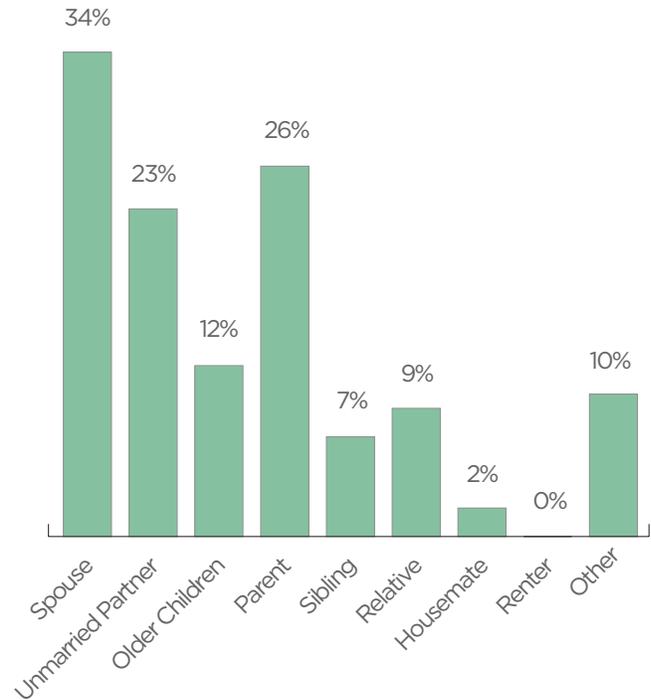
# Mental Health & Food Security Report

Respondents most frequently reported living with a spouse or unmarried partner and children. Spouses, unmarried partners, older children, and parents were most often involved in childcare. Respondents least often reported living with housemates or renters. See Figures 4 and 5.

**Figure 4: Other Household Members (n=1028)**



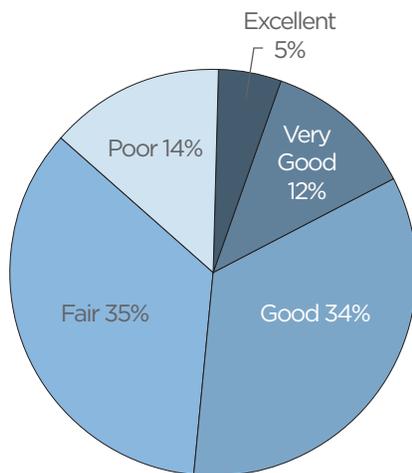
**Figure 5: Helps with Childcare Regularly (n=1028)**



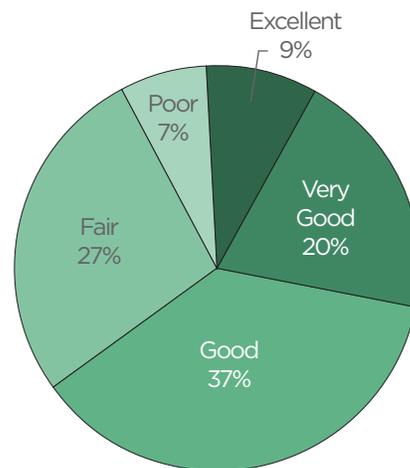
## Physical Health

Most respondents identified both their overall health and diet quality as good or fair (See Figures 6 and 7). Of respondents who reported their doctors had diagnosed them with a disease, high blood pressure (n=275), obesity (n=221), and diabetes (n=74) were the most frequently reported.

**Figure 6: Diet Quality**



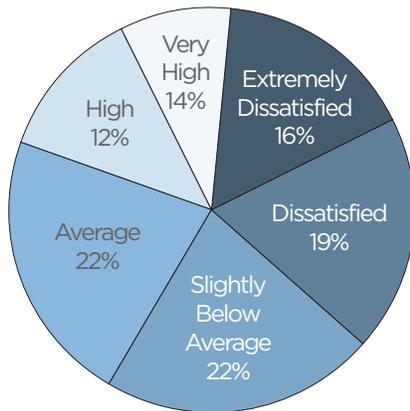
**Figure 7: Overall Physical Health**



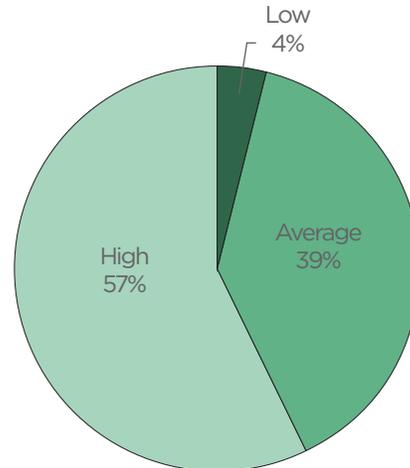
## Mental Health

Overall, respondents consistently reported worse mental health than the US average across all measures of mental health and illness. On average, respondents had worse global mental health (mean = 43) than the US average (mean = 50). Additionally, the average respondent scores for anxiety and depression (61 and 60, respectively) were greater than one standard deviation above the US average (mean = 50), indicating a greater prevalence of anxiety and depression symptoms in this population. The largest groups of respondents reported having average (22.0%) or slightly below average (22.6%) life satisfaction (Figure 8). Finally, over half of the respondents (57.5%) were experiencing high levels of stress (Figure 9).

**Figure 8: Life Satisfaction**



**Figure 9: Stress (n=1028)**



## IMPLICATIONS

The purpose of this survey was to assess the physical and mental health statuses for mothers in Virginia experiencing food insecurity. Over half of respondents were experiencing high levels of stress with the prevalence of symptoms of both anxiety and depression above the average for the US population. These preliminary findings highlight the need for further investigation into the relationship between food insecurity and mental health outcomes. Given the continuing effects of the COVID-19 pandemic, strategies to mitigate food insecurity, stress, and anxiety among Virginia mothers are warranted.

## REFERENCES

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