

THE STATE OF SENIOR HUNGER IN AMERICA IN 2015

Professor James P. Ziliak
University of Kentucky

Professor Craig Gundersen *University of Illinois*





Supplement

The State of Senior Hunger in America 2015: An Annual Report

Prepared for Feeding America and the National Foundation to End Senior Hunger

August 16, 2017

Professor James P. Ziliak University of Kentucky

Professor Craig Gundersen University of Illinois

ACKNOWLEDGEMENTS

This supplement to our report was made possible by a generous grant from Feeding America. The conclusions and opinions expressed herein are our own and do not necessarily represent the views of any sponsoring agency.

EXECUTIVE SUMMARY

In this supplement to our report (Ziliak and Gundersen 2017) we provide a broad overview of the extent and distribution of food insecurity among seniors in the United States in 2015, along with trends over the past decade using national and state-level data from the December Supplements to the Current Population Survey.

Based on the full set of 18 questions in the Food Security Supplement (FSS), the module used by the USDA to establish the official food insecurity rates of households in the United States, in Ziliak and Gundersen (2017) we concentrate on the measure of the *threat of hunger* (i.e. marginally food insecure) if a household answered affirmatively to at least one question on the FSS. In this supplement, we examine two additional measures of food insecurity: facing the *risk of hunger* (i.e. food insecure) if a household answered affirmatively to at least 3 questions and *facing hunger* (i.e. very low food secure) if a household answered affirmatively to at least 8 questions in households with children and at least 6 questions in households without children.

Based on the barometer of food insecurity, this report demonstrates that seniors continue to face serious challenges despite a recent slight decline in food insecurity.

Specifically, in 2015 we find that

- 14.7% of seniors face the threat of hunger, 8.1% face the risk of hunger, and 3.1% are facing hunger. This translates into 9.8 million, 5.4 million, and 2.1 million seniors, respectively.
- From 2014 to 2015, there were statistically significant declines in the proportion of seniors facing the threat of hunger and at risk of hunger. However, there was no change in those facing hunger. These declines were most pronounced among those living in metro areas, African Americans, Hispanics, and younger seniors.
- Compared to 2001, the fraction of seniors experiencing the threat of hunger, the risk of hunger, and hunger has increased by 37%, 53%, and 121%. The number of seniors in each group rose 109%, 135%, and 250% which also reflects the growing population of seniors.
- Continuing with historic trends documented in prior reports, we find that the threat of hunger is greatest among those living in states in the South and Southwest, those who are racial or ethnic minorities, those with lower incomes, and those who are younger (ages 60-69).

Despite an improving economy and financial markets, millions of seniors in the United States are going without enough food due to economic constraints. Based on the findings regarding food insecurity and health in Ziliak and Gundersen (2017), this stubbornly high proportion of food insecure seniors continues to impose a major health care challenge in the U.S. One group of particular policy concern are those seniors experiencing very low food security, the ranks of which have swelled since 2001.

I. FOOD INSECURITY IN 2015

We document the state of hunger among senior Americans ages 60 and older in 2015 using data from the most recently available Current Population Survey (CPS). This is part of a series of reports on food insecurity among seniors which began with Ziliak et al. (2008), and has been produced annually since 2012 with the most recent being Ziliak and Gundersen (2016). In December of each year, households respond to a series of 18 questions (10 questions if there are no children present) that make up the Food Security Supplement (FSS) in the CPS. (See the Appendix for more details on the CPS and FSS.) Each question is designed to capture some aspect of food insecurity and, for some questions, the frequency with which it manifests itself. Respondents are asked questions about their food security status in the last 30 days as well as over the past 12 months. Following the standard approach used by the USDA, we focus on the questions referring to the past year.

Consistent with the nomenclature and categorizations in our past reports, we consider three characterizations of food insecurity: the *threat of hunger*, when a person is defined as marginally food insecure due to having answered affirmatively to one or more questions on the FSS; the *risk of hunger*, when a person is food insecure (three or more affirmative responses to questions on the FSS); and *facing hunger*, when a person is very low food secure (8 or more affirmative responses to questions in households with children; 6 or more affirmative responses in households without children). The threat of hunger is the broadest category of food insecurity since it encompasses those responding to at least one question on the FSS. The next broadest category is the risk of hunger since this group encompasses those who are either low food secure or very low food secure. It follows then that the most severe category in our taxonomy is facing hunger. Box 1 summarizes the categories.

Box 1: Categories of Food Insecurity

	USDA Classification	Number of Affirmative Responses to FSS
Fully Food Secure	Fully Food Secure	0
Threat of Hunger	Marginally Food Insecure	1 or more
Risk of Hunger	Food Insecure	3 or more
Facing Hunger	Very Low Food Secure	8 or more (households with children)
	-	6 or more (households without children)

In Table 1 we present estimates of food insecurity among seniors in 2015. Overall, 14.7% faced the threat of hunger (9.8 million seniors). In the more severe food insecurity categories, we find that 8.1% faced the risk of hunger (5.4 million seniors) and 3.1% faced hunger (2.1 million seniors). The table also presents estimates of food insecurity across selected socioeconomic categories. Here we see great heterogeneity across the senior population. For example, for those with incomes below the poverty line, 45.3% face the threat of hunger, 29.8% face the risk, and 13.6% face hunger. In contrast, seniors with incomes greater than twice the poverty line, these numbers fall dramatically to 7.5%, 3.6%, and 1.2%. Turning to race, white seniors have food insecurity rates that are less than half the rates for African-American seniors. (The category of "other race" includes those American Indians, Asians, and Pacific Islanders.) Similarly,

Hispanics (of any racial category) have food insecurity rates which are generally twice the rates of non-Hispanics.

 Table 1. The Extent of Senior Food Insecurity in 2015

Noverall Noverall	Table 1. The Extent of Senior Food Insecurity in 20.	Threat of hunger	Risk of	Facing Hunger	
By Income 45.27 29.84 13.64 Between 100% and 200% of the Poverty Line 33.72 18.01 7.15 Above 200% of the Poverty Line 7.45 3.60 1.23 Income Not Reported 9.67 5.17 1.64 By Race White 12.78 7.05 2.87 Black 31.07 17.11 5.52 Other 14.28 7.73 2.81 By Hispanic Status 13.87 7.57 2.90 By Marital Status 10.46 5.15 1.73 Widowed 16.89 9.25 3.75 Divorced or Separated 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location 16.91 9.20 3.27 Metro 14.29 7.89 3.11 By Age 60-64 17.71 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 <th></th> <th></th> <th>Hunger</th> <th></th>			Hunger		
Below the Poverty Line 45.27 29.84 13.64 Between 100% and 200% of the Poverty Line 33.72 18.01 7.15 Above 200% of the Poverty Line 7.45 3.60 1.23 Income Not Reported 9.67 5.17 1.64 By Race White 12.78 7.05 2.87 Black 31.07 17.11 5.52 Other 14.28 7.73 2.81 By Hispanic Status 15.87 7.57 2.90 By Marital Status 10.46 5.15 1.73 Widowed 16.89 9.25 3.75 Divorced or Separated 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location 16.91 9.20 3.27 Metro 16.91 9.20 3.27 Metro 16.91 9.20 3.27 Metro 15.67 8.70 3.47 70-74 12.87 7.37 2.56	Overall	14.71%	8.10%	3.13%	
Between 100% and 200% of the Poverty Line 33.72 18.01 7.15 Above 200% of the Poverty Line 7.45 3.60 1.23 Income Not Reported 9.67 5.17 1.64 By Race Total 7.05 2.87 Black 31.07 17.11 5.52 Other 14.28 7.73 2.81 By Hispanic Status Total 13.87 7.57 2.90 By Marital Status 10.46 5.15 1.73 2.90 By Married 16.89 9.25 3.75 2.90 3.75 2.90 3.75 2.90 3.75 2.90 3.75 2.90 3.75 3.75 2.90 3.75 3.75 2.90 3.75 3.75 2.90 3.75 3.75 2.90 3.75 3.75 2.90 3.75 3.75 2.90 3.75 3.75 2.90 3.75 3.75 2.90 3.75 3.75 2.90 3.75 3.75 2.90 3.27 3.75 2.91 <td>By Income</td> <td></td> <td></td> <td></td>	By Income				
Above 200% of the Poverty Line Income Not Reported 7.45 3.60 1.23 Income Not Reported 9.67 5.17 1.64 By Race White 12.78 7.05 2.87 Black 31.07 17.11 5.52 2.00 19.11 5.52 2.00 2.01	Below the Poverty Line	45.27	29.84	13.64	
Income Not Reported 9.67 5.17 1.64	Between 100% and 200% of the Poverty Line	33.72	18.01	7.15	
By Race White 12.78 7.05 2.87 Black 31.07 17.11 5.52 Cother 14.28 7.73 2.81 By Hispanic Status Hispanic 23.60 13.75 5.61 Non-Hispanic 31.87 7.57 2.90 By Marital Status Warried 10.46 5.15 1.73 Widowed 16.89 9.25 3.75 Divorced or Separated 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location Non-Metro 16.91 9.20 3.27 Metro 14.29 7.89 3.11 By Age 60-64 17.71 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 29.33 37.49 2.94 Employed 38.10 25.10 11.94 By Gender Male 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present No Grandchild Present 13.91 7.63 2.98 Sandchild Present No Grandchild Present 13.91 7.63 2.98 Sandchild Present 13.91 7.63 2.	Above 200% of the Poverty Line	7.45	3.60	1.23	
White 12.78 7.05 2.87 Black 31.07 17.11 5.52 Other 14.28 7.73 2.81 By Hispanic Status 31.07 7.57 2.81 Non-Hispanic 23.60 13.75 5.61 Non-Hispanic 13.87 7.57 2.90 By Marital Status 31.87 7.57 2.90 3.75 1.73 Widowed 16.89 9.25 3.75 1.73 1.74 1.74 1.88 1.80 7.04 1.89 9.25 3.75 1.63 1.89 1.80 1.89 9.25 3.75 1.70 1.80	Income Not Reported	9.67	5.17	1.64	
Black Other 31.07 lt.28 17.11 lt.28 5.52 lt.28 Other 14.28 7.73 2.81 By Hispanic Status Hispanic Status Hispanic Non-Hispanic 23.60 13.75 5.61 Non-Hispanic 13.87 7.57 2.90 By Marital Status Married 10.46 5.15 1.73 Widowed 16.89 9.25 3.75 Divorced or Separated Never Married 24.58 15.01 5.63 By Metropolitan Location Non-Metro Metro Separated	By Race				
Other 14.28 7.73 2.81 By Hispanic Status Hispanic Non-Hispanic 23.60 13.75 5.61 Non-Hispanic 13.87 7.57 2.90 By Marital Status 3.87 5.75 2.90 Married 16.89 9.25 3.75 Divorced or Separated 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location 16.91 9.20 3.27 Metro 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 <t< td=""><td>White</td><td>12.78</td><td>7.05</td><td>2.87</td></t<>	White	12.78	7.05	2.87	
Hispanic Status Hispanic 23.60 13.75 5.61 Non-Hispanic 13.87 7.57 2.90 13.87 7.57 2.90 13.87 7.57 2.90 13.87 7.57 2.90 13.87 7.57 2.90 13.87 7.57 2.90 13.87 7.57 2.90 15.87 15.85 15.85 17.35 16.89 9.25 3.75 16.89 9.25 3.75 16.89 9.25 3.75 16.89 9.25 3.75 16.89 16.89 9.25 3.75 16.89 16.89 9.25 3.75 16.89 16.89 9.25 3.75 16.89 16.91	Black	31.07	17.11	5.52	
Hispanic 23.60 13.75 5.61 Non-Hispanic 13.87 7.57 2.90 By Marital Status Temporaria Status Married 10.46 5.15 1.73 Widowed 16.89 9.25 3.75 Divorced or Separated 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location Non-Metro 16.91 9.20 3.27 Metro 14.29 7.89 3.11 By Age 60-64 17.71 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 <t< td=""><td>Other</td><td>14.28</td><td>7.73</td><td>2.81</td></t<>	Other	14.28	7.73	2.81	
Non-Hispanic 13.87 7.57 2.90 By Marital Status 10.46 5.15 1.73 Widowed 16.89 9.25 3.75 Divorced or Separated Never Married 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location 16.91 9.20 3.27 Metro 15.67 8.70 3.47 70-74 12.87 7.37 2.56 80 and older 10.59 5.01 1.79 By Employment Status 11.03 5.34 2.01 Unemployed 29.32 17.47	By Hispanic Status				
By Marital Status Married 10.46 5.15 1.73 Widowed 16.89 9.25 3.75 Divorced or Separated 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location 8.70 3.27 6.70 7.70 <td>Hispanic</td> <td>23.60</td> <td>13.75</td> <td>5.61</td>	Hispanic	23.60	13.75	5.61	
Married 10.46 5.15 1.73 Widowed 16.89 9.25 3.75 Divorced or Separated 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location	Non-Hispanic	13.87	7.57	2.90	
Widowed 16.89 9.25 3.75 Divorced or Separated 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location	By Marital Status				
Divorced or Separated Never Married 25.28 15.86 7.04 Never Married 24.58 15.01 5.63 By Metropolitan Location Total Metro 16.91 9.20 3.27 Metro 14.29 7.89 3.11 By Age Total Metro 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender Male 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	Married	10.46	5.15	1.73	
Never Married 24.58 15.01 5.63 By Metropolitan Location 16.91 9.20 3.27 Metro 14.29 7.89 3.11 By Age 60-64 17.71 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 4 15.87 8.62 3.29 By Grandchild Present 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	Widowed	16.89	9.25	3.75	
By Metropolitan Location 16.91 9.20 3.27 Metro 14.29 7.89 3.11 By Age 60-64 17.71 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 4 15.87 8.62 3.29 By Grandchild Present No Grandchild Present 7.63 2.98	Divorced or Separated	25.28	15.86	7.04	
Non-Metro 16.91 9.20 3.27 Metro 14.29 7.89 3.11 By Age 60-64 17.71 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender Male 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present No Grandchild Present 13.91 7.63 2.98	Never Married	24.58	15.01	5.63	
Metro 14.29 7.89 3.11 By Age 60-64 17.71 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present No Grandchild Present 13.91 7.63 2.98	By Metropolitan Location				
By Age 17.71 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 4 15.87 8.62 3.29 By Grandchild Present 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	Non-Metro	16.91	9.20	3.27	
60-64 17.71 10.32 4.22 65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender Male 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	Metro	14.29	7.89	3.11	
65-69 15.67 8.70 3.47 70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 38.10 25.10 11.94 By Gender 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	By Age				
70-74 12.87 7.37 2.56 75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 38.10 25.10 11.94 Female 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	60-64	17.71	10.32	4.22	
75-79 14.04 7.00 2.56 80 and older 10.59 5.01 1.79 By Employment Status Employed Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender Male 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present No Grandchild Present No Grandchild Present 13.91 7.63 2.98	65-69	15.67	8.70	3.47	
80 and older 10.59 5.01 1.79 By Employment Status 30.00 11.03 5.34 2.01 Employed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	70-74	12.87	7.37	2.56	
By Employment Status Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 38.10 25.10 11.94 Male 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	75-79	14.04	7.00	2.56	
Employed 11.03 5.34 2.01 Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	80 and older	10.59	5.01	1.79	
Unemployed 29.32 17.47 7.91 Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender The state of the state o	By Employment Status				
Retired 12.69 6.69 2.26 Disabled 38.10 25.10 11.94 By Gender 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	Employed	11.03	5.34	2.01	
Disabled 38.10 25.10 11.94 By Gender 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	Unemployed	29.32	17.47	7.91	
By Gender 13.33 7.49 2.94 Male 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	Retired	12.69	6.69	2.26	
Male 13.33 7.49 2.94 Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	Disabled	38.10	25.10	11.94	
Female 15.87 8.62 3.29 By Grandchild Present 13.91 7.63 2.98	By Gender				
By Grandchild Present No Grandchild Present 13.91 7.63 2.98	Male	13.33	7.49	2.94	
No Grandchild Present 13.91 7.63 2.98	Female	15.87	8.62	3.29	
	By Grandchild Present				
Grandchildren Present 31.66 18.14 6.26	No Grandchild Present	13.91	7.63	2.98	
	Grandchildren Present	31.66	18.14	6.26	

Source: Authors' calculations from 2015 December Current Population Survey. The numbers in the table show the rates of food insecurity under three measures for various groups.

Food insecurity among divorced or separated seniors is two to three times greater than married seniors (and over four times larger in the most severe category of facing hunger). As age increases, food insecurity rates fall. For example, seniors between the ages of 60 and 64 have food insecurity rates that are over twice those 80 and older. The threat and risk of hunger is 3-4 times higher among the disabled in comparison to the retired, and if a grandchild is present, food insecurity is more than twice as likely as among households with no grandchildren present.

Table 1 allows us to see the proportions of persons within any category who are food insecure and, with this information, we can make statements about who is most in danger of being food insecure. For example, those with lower incomes are substantially more likely to be food insecure in any of our food insecurity categories than those with higher incomes. Also of interest, though, is the distribution of senior hunger. In other words, out of those who are food insecure, what proportion fall into a particular category? We present these results in Table 2.

As seen in Table 2, the majority of seniors in any food insecurity category have incomes above the poverty line. For example, out of those reporting income, nearly 2 in 3 seniors at risk of hunger have incomes above the poverty line. A similar story holds for race – while African-Americans are at greater risk of hunger than whites, almost 3 in 4 food insecure seniors are white. Despite the lower food insecurity rates among older seniors, 12.3% of seniors facing the threat of hunger are 80 and older and for the risk of hunger and facing hunger, the figures are 10.6% and 9.7%. And while the rates of food insecurity are lowest for retired persons, they make up a substantial portion of each category in the threat of hunger, risk of hunger, and facing hunger – 52.6%, 50.4%, and 44.0%.

Table 2. The Distribution of Senior Food Insecurity in 2015

	Threat of hunger	Risk of	Facing Hunger
		Hunger	
By Income			
Below the Poverty Line	23.08	27.63	32.68
Between 100% and 200% of the Poverty Line	32.76	31.78	32.64
Above 200% of the Poverty Line	24.33	21.34	18.90
Income Not Reported	19.83	19.25	15.78
By Race			
White	72.85	72.95	76.84
Black	21.34	21.34	17.79
Other	5.81	5.71	5.37
By Hispanic Status			
Hispanic	13.88	14.69	15.50
Non-Hispanic	86.12	85.31	84.50
By Marital Status			
Married	42.93	38.41	33.45
Widowed	21.40	21.28	22.35
Divorced or Separated	25.04	28.52	32.76
Never Married	10.63	11.79	11.44
By Metropolitan Location			
Non-Metro	18.52	18.30	16.80
Metro	81.48	81.70	83.20

By Age			
60-64	34.84	36.85	39.01
65-69	26.15	26.37	27.18
70-74	15.10	15.70	14.10
75-79	11.64	10.54	9.98
80 and older	12.27	10.55	9.74
By Employment Status			
Employed	21.61	18.99	18.47
Unemployed	1.88	2.04	2.39
Retired	52.61	50.39	43.98
Disabled	23.89	28.59	35.16
By Gender			
Male	41.14	41.99	42.68
Female	58.86	58.01	57.32
By Grandchild Present			
No Grandchild Present	90.20	89.81	90.90
Grandchildren Present	9.80	10.19	9.10

Source: Authors' calculations from 201 December Current Population Survey. The numbers in the table show the distribution of food insecurity under three measures for various groups.

In Table 3 we present state level estimates of senior food insecurity for 2015. The range for the threat of hunger spans from 6.1% in North Dakota to 24.3% in Mississippi; the risk of hunger spans from 2.9% in North Dakota to 15.6% in Louisiana; and the rate of those facing hunger spans from 1.1% in North Dakota to nearly 7.1% in Louisiana. This disparity across states is wider than in recent reports, and points to the fact that some states are falling behind those that are more successful in combating food insecurity among seniors.

Table 3. State-Level Estimates of Senior Food insecurity in 2014

	Threat of	Risk of	Facing		Threat of	Risk of	Facing
	Hunger	Hunger	Hunger		Hunger	Hunger	Hunger
AL	18.10	11.97	5.03	MT	9.62	5.09	2.47
AK	13.46	9.16	3.06	NE	13.91	6.91	2.69
AZ	17.79	9.56	3.47	NV	13.58	6.92	3.22
AR	19.56	10.53	3.35	NH	12.63	5.82	2.75
CA	14.45	8.38	2.80	NJ	13.96	8.87	3.36
CO	10.17	6.38	2.72	NM	17.99	11.23	4.90
CT	14.18	7.48	2.81	NY	19.34	9.98	3.33
DE	12.27	6.58	1.79	NC	20.73	12.77	4.02
DC	17.78	9.56	3.32	ND	6.14	2.86	1.14
FL	13.62	8.03	2.96	OH	15.02	8.86	2.96
GA	18.13	8.79	4.65	OK	18.14	10.19	4.16
HI	12.33	6.35	2.61	OR	14.90	6.67	3.38
ID	10.66	4.88	1.99	PA	15.13	7.27	1.96

IL	15.32	7.69	3.16	RI	14.49	7.47	4.10
IN	18.24	11.68	5.20	SC	19.58	11.86	4.90
IA	10.93	5.54	2.39	SD	10.47	5.84	2.01
KS	13.84	8.28	4.05	TN	16.39	9.57	4.66
KY	18.04	9.77	4.84	TX	16.80	9.57	3.77
LA	23.44	15.56	7.08	UT	13.71	7.91	3.33
ME	15.62	8.11	3.76	VT	12.28	7.46	3.21
MD	11.22	5.19	2.16	VA	11.29	5.59	2.37
MA	10.46	5.22	2.68	WA	10.95	6.13	2.71
MI	13.33	8.02	2.58	WV	18.50	8.41	3.56
MN	9.49	4.82	1.99	WI	10.40	5.29	1.94
MS	24.28	12.28	3.83	WY	9.11	4.45	2.12
MO	12.85	6.20	1.76				

Source: Authors' calculations. The numbers are two-year averages found by summing the number of food insecure seniors in each category by state across the 2014-2015 December Current Population Surveys and dividing by the corresponding total number of seniors in each state across the two years.

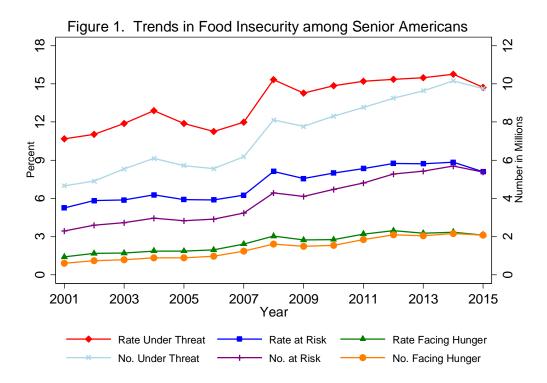
In Table 4 we highlight the ten states with the highest rates of senior hunger in 2015. In each category, almost all of the states are located in the South and Southwest, albeit for the first time Indiana is in the top 10 for each food insecurity category, New York is in the top 10 for the first two categories, and Rhode Island is in the top 10 for the facing hunger category. There are some differences across categories, though. For example, Mississippi has the highest level for threat of hunger and Louisiana has the highest of those at risk of hunger and facing hunger.

Table 4. Top Ten States in Terms of Senior Food Insecurity in 2014

Threat o	of Hunger	Risk of	Hunger	Facing	Hunger
MS	24.28	LA	15.56	LA	7.08
LA	23.44	NC	12.77	IN	5.20
NC	20.73	MS	12.28	AL	5.03
SC	19.58	AL	11.97	SC	4.90
AR	19.56	SC	11.86	NM	4.90
NY	19.34	IN	11.68	KY	4.84
WV	18.50	NM	11.23	TN	4.66
IN	18.24	AR	10.53	GA	4.65
OK	18.14	OK	10.19	OK	4.16
GA	18.13	NY	9.98	RI	4.10

II. FOOD INSECURITY OVER TIME

To place the 2015 estimates into perspective, we now examine trends in food insecurity since 2001. In Figure 1 we display results for the full population in terms of the percentage of seniors (left-hand axis) and number of seniors in millions (right-hand axis) within each of our food insecurity categories. As seen there, from 2014 to 2015 there was a statistically significant decline in the threat of hunger and risk of hunger, though no substantive change in those facing hunger. Despite the recent gain in combating food insecurity, across all three measures food insecurity rates are higher than at the start of the recession in 2007, and far higher than in 2001 - the fraction of seniors experiencing the threat of hunger, the risk of hunger, and hunger has increased by 37%, 53%, and 121%. The number of seniors in each group rose 109%, 135%, and 250% reflecting both the growing number of seniors and their rising food insecurity rates.



In Table 5 we take a deeper look into underlying changes in the composition of food insecure seniors from 2014 to 2015. The table presents percentage point changes in each of the three categories of food insecurity by the same set of socioeconomic characteristics in Table 1. Consistent with the overall trends in food insecurity, for several categories, there are statistically significant declines and some of these are large. For example, Hispanic seniors saw declines of 7.0 and 4.7 percentage points for the first two food insecurity categories and African-American seniors saw declines for each of the categories. Or, to cite another example, households with a grandchild present saw declines of 8.7 and 4.2 percentage points in the first two food insecurity categories. The only case for which there was a statistically significant increase was for those facing hunger 80 and older and those facing the threat of hunger who live between 100% and 200% of the poverty line.

Table 5. Changes in the Composition of Senior Hunger from 2014 to 2015				
	Threat of hunger	Risk of	Facing Hunger	
		Hunger		
Overall	-1.04***	-0.74*	-0.22	
By Income				
Below the Poverty Line	-3.53*	-1.92	-0.72	
Between 100% and 200% of the Poverty Line	2.50**	0.67	0.32	
Above 200% of the Poverty Line	-0.23	-0.01	0.21	
Income Not Reported	-1.04	-0.78	-0.37	
By Race				
White	-0.67*	-0.36	-0.06	
Black	-3.27*	-3.97***	-1.70**	
Other	-2.61	-0.70	-0.04	
By Hispanic Status				
Hispanic	-7.01***	-4.72***	0.45	
Non-Hispanic	-0.52	-0.39	-0.29	
By Marital Status				
Married	-0.64	-0.40	-0.19	
Widowed	-1.35	-0.68	-0.22	
Divorced or Separated	-2.90**	-2.48**	-0.52	
Never Married	0.18	-0.25	0.12	
By Metropolitan Location				
Non-Metro	-0.34	-0.86	-0.78*	
Metro	-1.15**	-0.69**	-0.10	
By Age				
60-64	-1.90*	-1.46**	-0.78*	
65-69	-0.38	-0.53	-0.01	
70-74	-1.49*	-0.54	-0.53	
75-79	-0.18	-0.85	0.03	
80 and older	-0.64	0.10	0.55*	
By Employment Status				
Employed	-0.75	-0.59	0.07	
Unemployed	-12.55**	-11.08**	-6.01*	
Retired	-0.40	-0.28	-0.09	
Disabled	-4.19**	-2.61*	-1.10	
By Gender				
Male	-0.61	-0.04	-0.12	
Female	-1.39**	-1.32***	-0.31	
By Grandchild Present		-		
No Grandchild Present	-0.71*	-0.59**	-0.20	
Grandchildren Present	-8.68**	-4.23**	-0.73	

Source: Authors' calculations. The numbers in the table reflect percentage point changes from 2014-2015. The asterisks denote statistical significance at the following levels: *** p<0.01; ** p<0.05; * p<0.1

In the next set of figures we examine trends in food insecurity since 2001 across a variety of subpopulations found in Tables 1 and 5. We begin in Figure 2 with trends in food insecurity for seniors living in metropolitan areas versus nonmetropolitan areas. The figure shows that, in the years leading up to the Great Recession there were differences between metro and non-metro areas in terms of the threat of hunger, but this seemed to dissipate during the recession. In 2015, food insecurity was higher for the first two measures, mimicking what occurred in pre-recession years.

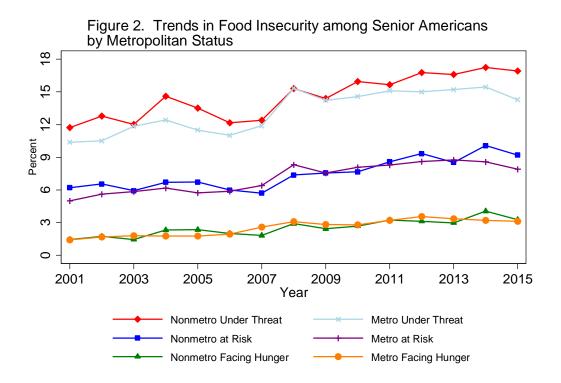
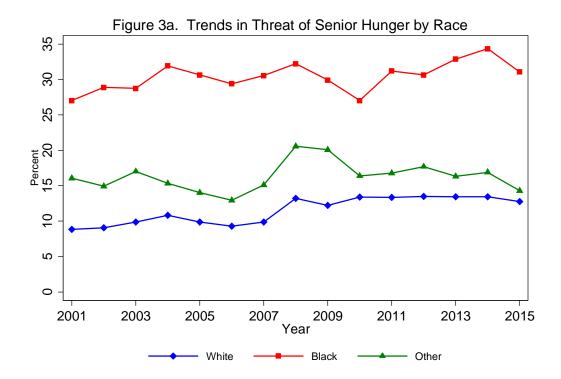
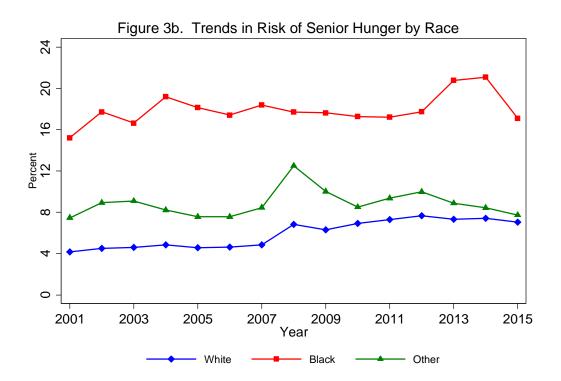
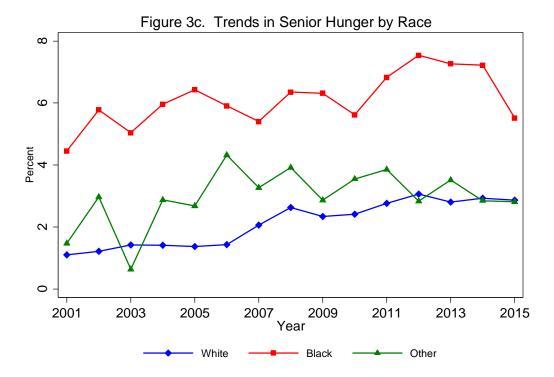


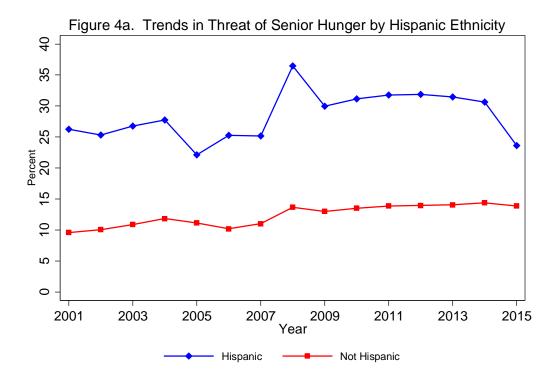
Figure 3a depicts trends in the threat of hunger across different races, while Figures 3b and 3c present similar trends for those at risk of hunger and for those facing hunger. As discussed above, the rates of food insecurity for blacks are substantially higher than whites. These figures reveal that these differences were present in each year from 2001 to 2015, albeit this gap narrowed substantially in 2015 across all three food insecurity categories. Similarly, for marginal food insecurity and food insecurity, rates are higher among the "other" category than among whites in all years and in all years except three (2003, 2012, and 2014) for very low food security.

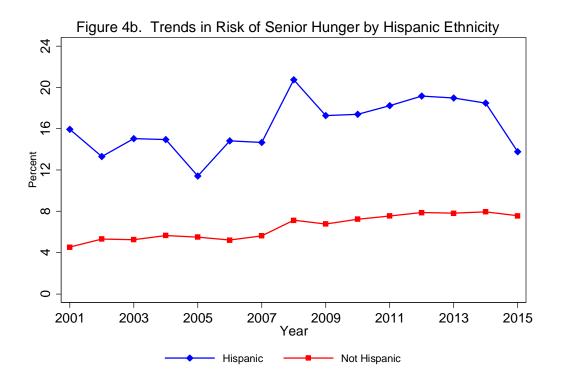


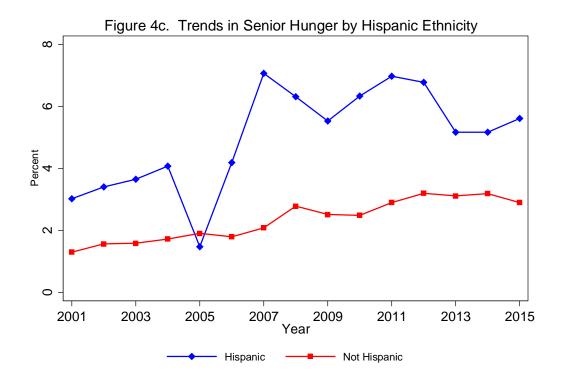




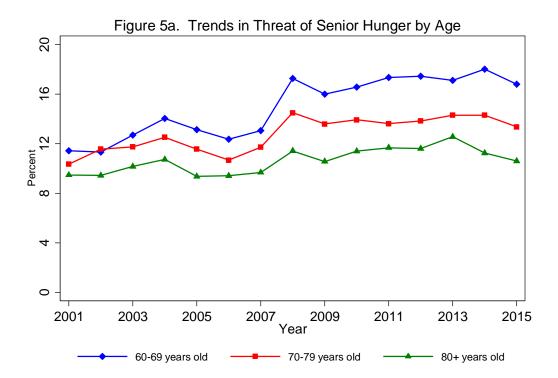
In Figures 4a-4c we present trends broken down by Hispanic status. For the threat of senior hunger and the risk of senior hunger, rates are substantially higher among Hispanics than non-Hispanics, but this gap narrowed sharply in 2015. The trends in senior hunger are similar, with the exception of 2005 which saw higher rates among non-Hispanics and in 2015 where the gap increased rather than narrowed.

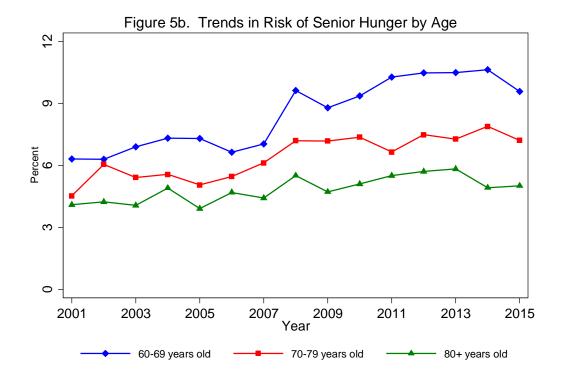


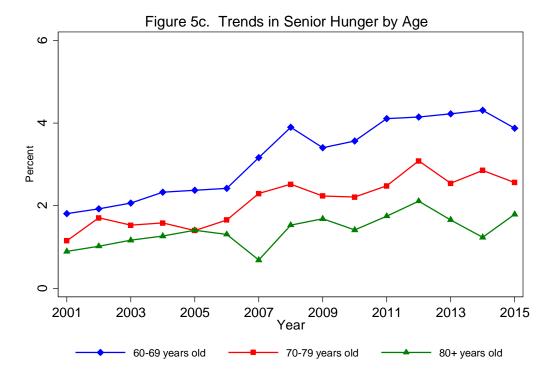




Figures 5a-5c present a parallel set of results for seniors of three age groups—60-69 years old, 70-79 years old, and age 80 and older. As seen in Figure 5a, there were declines since 2014 among younger seniors, but overall that sharp increases from the Great Recession remain in 2015.







III. CONCLUSION

This report demonstrates that food insecurity among seniors in America is a continued challenge facing the nation. Despite the end of the Great Recession in 2009, almost 1 in 6 seniors faced the threat of hunger in 2015. Even more troubling is the astonishing 250% increase in the number of seniors facing hunger in 2015 compared to 2001. Given the compelling evidence in Gundersen and Ziliak (2017) that food insecurity is associated with a host of poor nutrition and health outcomes among seniors, this report implies that the high rates of food insecurity among seniors will likely lead to additional public health challenges for our country. This suggests that a key potential avenue to stem the growth of health care expenditures on older Americans is to ameliorate the problem of food insecurity.

APPEXDIX

The CPS is a nationally representative survey conducted by the Census Bureau for the Bureau of Labor Statistics, providing employment, income and poverty statistics. Households are selected to be representative of civilian households at the state and national levels, using suitably appropriate sampling weights. The CPS does not include information on individuals living in group quarters including nursing homes or assisted living facilities. For this report and previous reports, we use data from the December Supplement which contains the Food Security Supplement (FSS). The questions from the FSS are found in Appendix Table 1. Because our focus is on hunger among seniors, our CPS sample is of persons age 60 and older. In 2015 this results in 22,626 sample observations. Appendix Table 2 presents selected summary statistics for the CPS sample.

Appendix Table 1: Questions on the Food Security Supplement

Food Insecurity Question	Asked of Households with Children	Asked of Households without Children
1. "We worried whether our food would run out before we got money to buy more." Was that often, sometimes , or never true for you in the last 12 months?	X	Х
2. "The food that we bought just didn't last and we didn't have money to get more." Was that often, sometimes , or never true for you in the last 12 months?	x	X
3. "We couldn't afford to eat balanced meals." Was that often, sometimes , or never true for you in the last 12 months?	X	X
4. "We relied on only a few kinds of low-cost food to feed our children because we were running out of money to buy food." Was that often , sometimes , or never true for you in the last 12 months?	x	
5. In the last 12 months, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn't enough money for food? (Yes/No)	X	X
6. "We couldn't feed our children a balanced meal, because we couldn't afford that." Was that often, sometimes , or never true for you in the last 12 months?	X	
7. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food? (Yes /No)	X	X
8. (If yes to Question 5) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?	X	x
9. "The children were not eating enough because we just couldn't afford enough food." Was that often, sometimes , or never true for you in the last 12 months?	X	
10. In the last 12 months, were you ever hungry, but didn't eat, because you couldn't afford enough food? (Yes/No)	X	X
11. In the last 12 months, did you lose weight because you didn't have enough money for food? (Yes/No)	X	X
12. In the last 12 months, did you ever cut the size of any of the children's meals because there wasn't enough money for food? (Yes/No)	X	
13. In the last 12 months did you or other adults in your household ever not eat for a whole day because there wasn't enough money for food? (Yes/No)	X	X
14. In the last 12 months, were the children ever hungry but you just couldn't afford more food? (Yes/No)	x	
15. (If yes to Question 13) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?	X	X
16. In the last 12 months, did any of the children ever skip a meal because there wasn't enough money for food? (Yes/No)	X	
17. (If yes to Question 16) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?	X	
18. In the last 12 months did any of the children ever not eat for a whole day because there wasn't enough money for food? (Yes/No) Notes: Responses in hold indicate an "affirmative" response	x	

Notes: Responses in bold indicate an "affirmative" response.

Appendix Table 2: Selected Characteristics of Senior Americans Age 60 and older in 2015

Appendix Table 2: Selected Characteristics of Senior Americans Age 60 and Income Categories	0 0.000 IN 2010
Below the Poverty Line	0.08
Between 100% and 200% of the Poverty Line	0.14
Above 200% of the Poverty Line	0.48
Missing Income	0.30
Racial Categories	
White	0.84
Black	0.10
Other	0.06
Hispanic Status	
Hispanic	0.09
Non-Hispanic	0.91
Marital Status	
Married	0.60
Widowed	0.19
Divorced or Separated	0.15
Never Married	0.06
Metropolitan Location	
Non-Metro	0.16
Metro	0.84
Age	
60 to 64	0.29
65 to 69	0.25
70 to 74	0.17
75 to 79	0.12
80 and older	0.17
Employment Status	
Employed	0.29
Unemployed	0.01
Retired	0.61
Disabled	0.09
By Gender	
Male	0.45
Female	0.55
Grandchild Present	
No Grandchild Present	0.95
Grandchild Present	0.05

References

Gundersen, C. and J. Ziliak. 2017. *The Health Consequences of Senior Hunger in the United States: Evidence from the 1999-2014 NHANES*. Report submitted to Feeding America.

Ziliak, J., and C. Gundersen. 2016. *The State of Senior Hunger in America 2014: An Annual Report*. Report submitted to National Foundation to End Senior Hunger.

Ziliak, J., C. Gundersen, and M. Haist. 2008. *The Causes, Consequences, and Future of Senior Hunger in America*. Report submitted to Meals on Wheels Association of America Foundation.

About the Authors

James P. Ziliak, Ph.D., holds the Carol Martin Gatton Endowed Chair in Microeconomics in the Department of Economics and is Founding Director of the Center for Poverty Research at the University of Kentucky. He earned received his BA/BS degrees in economics and sociology from Purdue University, and his Ph.D. in Economics from Indiana University. He served as assistant and associate professor of economics at the University of Oregon, and has held visiting positions at the Brookings Institution, University College London, University of Michigan, and University of Wisconsin. His research expertise is in the areas of labor economics, poverty, food insecurity, and tax and transfer policy. Recent projects include the causes and consequences of hunger among older Americans; trends in earnings and income volatility in the U.S.; trends in the antipoverty effectiveness of the social safety net; the origins of persistent poverty in America; and regional wage differentials across the earnings distribution. He is editor of Welfare Reform and its Long Term Consequences for America's Poor published by Cambridge University Press (2009) and Appalachian Legacy: Economic Opportunity after the War on Poverty published by Brookings Institution Press (2012), and co-editor of SNAP Matters: How Food Stamps Affect Health and Well Being at Stanford University Press (2015).

Craig Gundersen, Ph.D., is the Soybean Industry Endowed Professor in Agricultural Strategy in the Department of Agricultural and Consumer Economics at the University of Illinois, is on the Technical Advisory Group for Feeding America, is the lead researcher on Feeding America's Map the Meal Gap project, and is the Managing Editor for *Applied Economic Perspectives and Policy*. He is also a Round Table Member of the Farm Foundation, a Non-Resident Senior Fellow at the Chicago Council on Global Affairs, and a Faculty Affiliate of the Wilson Sheehan Lab for Economic Opportunities (LEO) at the University of Notre Dame. His research concentrates on the causes and consequences of food insecurity and on the evaluation of food assistance programs, with an emphasis on SNAP.

Contact information:

Professor James P. Ziliak Center for Poverty Research University of Kentucky Gatton Building, Suite 234 550 South Limestone St. Lexington, KY 40506-0034

Phone: (859) 257-6902

Email: jziliak@uky.edu

Professor Craig Gundersen

Department of Agriculture and Consumer Economics

University of Illinois 323 Mumford Hall 1301 W. Gregory Dr. Urbana, IL 61801

Phone: (217) 333-2857

Email: cggunder@illinois.edu