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# The State of Senior Hunger in America

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# **The State of Senior Hunger in America 2016: An Annual Report**

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

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## EXECUTIVE SUMMARY

In this report, we provide a broad overview of the extent and distribution of food insecurity among seniors in the United States in 2016, along with trends over the past decade and a half using national and state-level data from the December Supplements to the Current Population Survey (CPS).

Based on the full set of 18 questions in the Food Security Supplement (FSS), the module used by the United States Department of Agriculture (USDA) to establish the official food insecurity rates of households in the United States, we concentrate on three measures: marginal food insecurity (one or more affirmative responses), food insecurity (three or more affirmative responses), and very low food security (eight or more affirmative responses in households with children; six or more in households without).

Specifically, in 2016, we find that:

- 13.6% of seniors are marginally food insecure, 7.7% are food insecure, and 2.9% are very low food secure. This translates into 8.6 million, 4.9 million, and 1.8 million seniors, respectively.
- From 2015 to 2016, there were statistically significant declines in the percentage of marginally food-insecure seniors. However, there were no statistically significant changes in food insecurity or very low food security. Looking at demographic categories, there were sizable and statistically significant declines for several categories among the marginally food insecure; however, only two groups – those with incomes above 200% of the poverty line and white seniors—experienced significant declines in food insecurity.
- Across all three measures, from 2014 to 2016 there were statistically significant declines of 2.2 percentage points, 1.2 percentage points, and 0.5 percentage points for marginal food insecurity, food insecurity, and very low food security.
- Compared to 2001, the fraction of marginal food insecure, food insecure, and very low food secure seniors increased by 27%, 45%, and 100%. The number of seniors in each group rose 90%, 113%, and 200%, which also reflects the growing population of seniors.
- Continuing with historic trends documented in prior reports, we find that food insecurity 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).

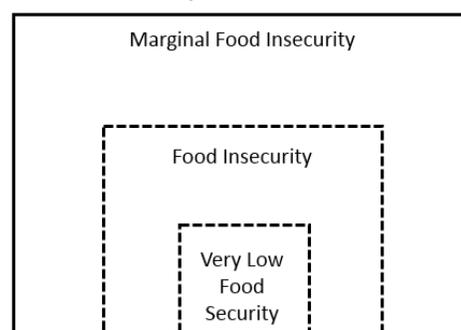
Despite an improving economy and financial markets, millions of seniors in the United States are going without enough food due to economic constraints. Based on the findings regarding food insecurity and health in Gundersen and Ziliak (2017), this stubbornly high proportion of food-insecure seniors continues 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 especially swelled since 2001.

## I. FOOD INSECURITY IN 2016

We document the state of hunger among senior Americans ages 60 and older in 2016 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 (2017). 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.

Based on the full set of 18 questions in the FSS, the module used by the USDA to establish the official food insecurity rates of households in the United States, we concentrate on three measures: marginal food insecurity (one or more affirmative responses), food insecurity (three or more affirmative responses), and very low food security (eight or more affirmative responses in households with children; six or more in households without). These categories correspond with the nomenclature we used in previous reports, namely, *threat of hunger*, *risk of hunger*, and *facing hunger*, respectively.

Food Insecurity Measures



In Table 1 we present estimates of food insecurity among seniors in 2016. Overall, 13.6% were marginally food insecure (8.6 million seniors). In the more severe food insecurity categories, we find that 7.7% were food insecure (4.9 million seniors) and 2.9% were very low food secure (1.8 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, 46.4% were marginally food insecure, 31.4% were food insecure, and 13.1% were very low food secure. In contrast, seniors with incomes greater than twice the poverty line, these numbers fall dramatically to 6.1%, 3.0%, and 0.9%. The fractions of seniors living in poverty or near poverty who face food insecurity have been fairly stable compared to prior reports, but there has been a slight decline in food insecurity rates among those with incomes at twice the poverty line and higher. Turning to race, white seniors have food insecurity rates that are substantially 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 2016

	Marginally Food Insecure	Food Insecure	Very Low Food Secure
Overall	13.6%	7.7%	2.9%
<b>By Income</b>			
Below the Poverty Line	46.4	31.4	13.1
Between 100% and 200% of the Poverty Line	31.7	17.3	6.7
Above 200% of the Poverty Line	6.1	3.0	0.9
Income Not Reported	8.8	4.7	1.5
<b>By Race</b>			
White	11.6	6.3	2.3
Black	29.4	18.7	7.6
Other	14.4	8.5	2.4
<b>By Hispanic Status</b>			
Hispanic	27.0	17.3	4.5
Non-Hispanic	12.3	6.8	2.7
<b>By Marital Status</b>			
Married	9.5	4.7	1.6
Widowed	16.5	9.3	3.6
Divorced or Separated	23.6	15.1	6.3
Never Married	21.9	14.4	5.1
<b>By Metropolitan Location</b>			
Non-Metro	14.8	8.7	3.2
Metro	13.3	7.5	2.8
<b>By Age</b>			
60-64	16.7	9.9	3.8
65-69	14.2	8.2	3.2
70-74	12.4	7.1	2.5
75-79	11.9	6.5	2.2
80 and older	9.8	4.5	1.4
<b>By Employment Status</b>			
Employed	10.0	5.2	1.8
Unemployed	31.5	22.0	11.4
Retired	11.2	6.0	2.1
Disabled	37.4	24.3	9.9
<b>By Gender</b>			
Male	12.4	7.0	2.5
Female	14.6	8.3	3.1
<b>By Grandchild Present</b>			
No Grandchild Present	12.9	7.2	2.8
Grandchildren Present	28.6	17.6	4.7

Source: Authors' calculations from 2016 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. As age increases, food insecurity rates fall. For example, seniors between the ages of 60 and 64 have food insecurity and very low food security rates that are over twice those 80 and older. In terms of employment categories, across all three food insecurity measures, rates are three to four times higher among the disabled in comparison to the retired. For seniors with a grandchild present, food insecurity rates for all three measures are substantially higher than when no grandchildren are 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 two in three food-insecure seniors have incomes above the poverty line. A similar story holds for race – while African-Americans are at greater risk of food insecurity under any measure than whites, over two in three food-insecure seniors are white. Despite the lower food insecurity rates among older seniors, 11.9% of marginal food-insecure seniors are 80 and older and for the other two measures, the figures are 9.7% and 8.4%, respectively. And while the rates of food insecurity are lowest for retired persons, they make up a substantial portion of each category – 50.5%, 47.7%, and 45.2%.

**Table 2.** The Distribution of Senior Food Insecurity in 2016

	Marginally Food Insecure	Food Insecure	Very Low Food Secure
<b>By Income</b>			
Below the Poverty Line	26.6%	31.9%	35.9%
Between 100% and 200% of the Poverty Line	32.3	31.3	32.7
Above 200% of the Poverty Line	22.2	19.2	16.4
Income Not Reported	18.9	17.7	15.1
<b>By Race</b>			
White	71.1	68.0	67.0
Black	22.3	25.0	27.7
Other	6.7	6.9	5.3
<b>By Hispanic Status</b>			
Hispanic	17.1	19.4	13.6
Non-Hispanic	82.9	80.6	86.4
<b>By Marital Status</b>			
Married	42.5	37.6	33.7
Widowed	22.3	22.2	23.1
Divorced or Separated	25.3	28.7	32.1
Never Married	9.9	11.5	11.0
<b>By Metropolitan Location</b>			
Non-Metro	19.8	20.5	20.5
Metro	80.2	79.5	79.5

By Age			
60-64	35.7	37.6	39.0
65-69	25.7	26.2	27.7
70-74	16.0	16.2	15.5
75-79	10.7	10.4	9.3
80 and older	11.9	9.7	8.4
By Employment Status			
Employed	20.8	19.1	17.5
Unemployed	2.6	3.2	4.4
Retired	50.5	47.7	45.2
Disabled	26.1	30.0	32.9
By Gender			
Male	41.4	41.1	40.0
Female	58.6	58.9	60.0
By Grandchild Present			
No Grandchild Present	90.6	89.8	92.6
Grandchildren Present	9.4	10.2	7.4

Source: Authors' calculations from 2016 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 2016. The range for marginal food insecurity spans from 5.8% in Colorado to 21.7% in Louisiana; food insecurity from 3.4% in North Dakota to 14.1% in Louisiana; and very low food security, from 1.2% in North Dakota to nearly 5.7% in Rhode Island. The importance of looking at multiple measures is seen in the example of Rhode Island – despite having the highest rates in the very low food security category, it is not even in the top ten for the other categories.

**Table 3.** State-Level Estimates of Senior Food Insecurity in 2016

	Marginally Food Insecure	Food Insecure	Very Low Food Secure		Marginally Food Insecure	Food Insecure	Very Low Food Secure
AL	19.3%	12.8%	5.0%	MT	10.8%	6.3%	2.9%
AK	14.1	7.6	3.2	NE	13.2	7.1	3.5
AZ	18.9	10.8	3.7	NV	14.4	6.0	2.1
AR	17.5	9.2	2.4	NH	13.6	7.0	2.2
CA	14.1	8.2	2.9	NJ	12.4	7.4	2.3
CO	5.8	3.8	1.9	NM	20.2	12.7	5.4
CT	12.2	6.0	1.6	NY	14.0	7.3	2.7
DE	11.2	5.5	1.7	NC	20.5	11.6	3.2
DC	17.7	9.6	2.8	ND	7.2	3.4	1.2
FL	11.3	6.8	2.6	OH	13.1	7.7	3.0
GA	18.0	9.2	3.9	OK	16.6	10.5	3.9
HI	9.6	4.7	1.7	OR	12.8	6.2	2.5
ID	8.5	4.7	2.3	PA	16.5	7.7	2.3

IL	13.1	7.1	3.4	RI	13.6	9.0	5.7
IN	15.4	9.9	4.6	SC	16.9	10.7	4.0
IA	10.2	6.3	3.0	SD	11.1	5.3	2.1
KS	10.2	6.3	1.7	TN	15.9	10.3	4.9
KY	16.6	10.8	4.8	TX	16.5	9.5	3.6
LA	21.7	14.1	5.2	UT	12.3	6.2	1.3
ME	14.3	6.9	2.9	VT	10.4	6.3	2.9
MD	11.4	5.5	2.2	VA	11.4	5.0	1.7
MA	12.0	7.4	2.8	WA	10.3	4.9	2.2
MI	13.8	7.4	2.9	WV	19.4	9.3	4.0
MN	8.5	3.9	1.7	WI	11.1	4.7	1.9
MS	19.8	11.9	4.0	WY	11.0	6.2	2.2
MO	12.6	5.5	2.1				

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 2015-2016 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 2016. In each category, almost all of the states are located in the South and Southwest, albeit Rhode Island and Indiana are in the top ten for very low food security. There are some differences across categories, though. For example, North Carolina has the second highest level for marginal food insecurity, but it isn't even in the top ten for the very low food security category. We note that there is some movement in the top ten classifications from one report to the next both because of changes in economic circumstances within states and variation from survey sample sizes, but overall many of the states consistently appear. For example, six of the ten states with the highest rates of marginal food insecurity were on the list last year, eight of the ten appear in the very low food secure panel, and compared to two years ago, six of the ten states appear in the marginal food insecure and food insecure categories.

**Table 4.** Top Ten States in Terms of Senior Food Insecurity in 2016

Marginally Food Insecure		Food Insecure		Very Low Food Secure	
LA	21.7%	LA	14.1%	RI	5.7
NC	20.5	AL	12.8	NM	5.4
NM	20.2	NM	12.7	LA	5.2
MS	19.8	MS	11.9	AL	5.0
WV	19.4	NC	11.6	TN	4.9
AL	19.3	KY	10.8	KY	4.8
AZ	18.9	AZ	10.8	IN	4.7

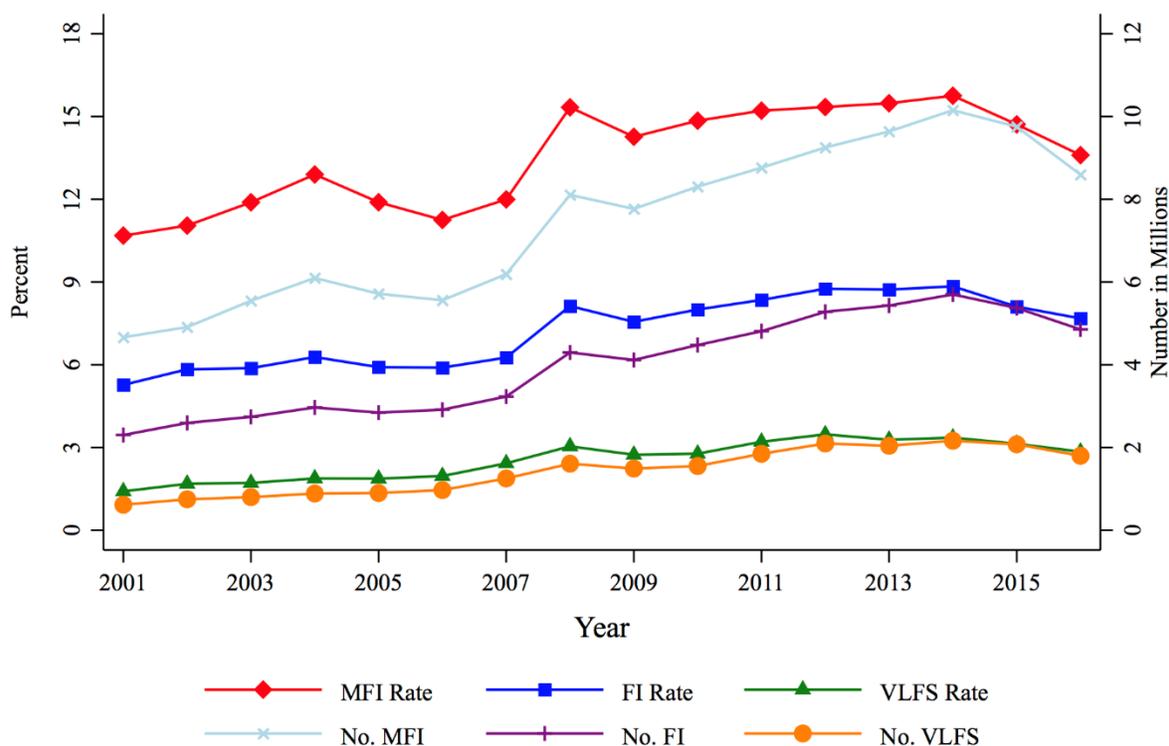
GA	18.0	SC	10.7	SC	4.0
DC	17.7	OK	10.5	MS	4.0
AR	17.5	TN	10.3	WV	4.0

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## II. FOOD INSECURITY OVER TIME

To place the 2016 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 2015 to 2016 there were declines in the rate across all three measures, albeit only the marginal food insecurity category was statistically significant. In comparison to 2014, though, across all three measures the declines in food insecurity rates are statistically significant. For marginal food insecurity there was a 2.2 percentage point decline; for food insecurity, 1.2 percentage points; and for very low food security, 0.5 percentage points. Despite the recent gain in combating food insecurity, across all three measures food insecurity rates are higher than before the Great Recession that started in December in 2007, and far higher than in 2001 - the fraction of seniors experiencing marginal food insecurity, food insecurity, and very low food security has increased by 27%, 45%, and 100%. The number of seniors in each group rose 90%, 113%, and 200%, reflecting both the growing number of seniors and their rising food insecurity rates.

Figure 1. Trends in Food Insecurity among Senior Americans



In Table 5, we take a deeper look into underlying changes in the composition of food-insecure seniors from 2015 to 2016. 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, those with incomes above 200% of the poverty line saw declines across all three measures. Or, to cite another example, whites saw statistically significant declines across all three measures. There were some cases, though, where food insecurity rates rose for at least one category: for African-Americans, in the very low food security category and for Hispanics in the marginal food insecurity and food insecurity categories. Perhaps of specific concern with these two groups is that their food insecurity rates are already higher than, respectively, whites and non-Hispanics.

**Table 5.** Changes in the Composition of Senior Hunger from 2015 to 2016

	Marginally Food Insecure	Food Insecure	Very Low Food Secure
Overall	-1.12***	-0.43	-0.29
By Income			
Below the Poverty Line	1.09	1.51	-0.57
Between 100% and 200% of the Poverty Line	-2.04	-0.72	-0.45
Above 200% of the Poverty Line	-1.33***	-0.61**	-0.29*

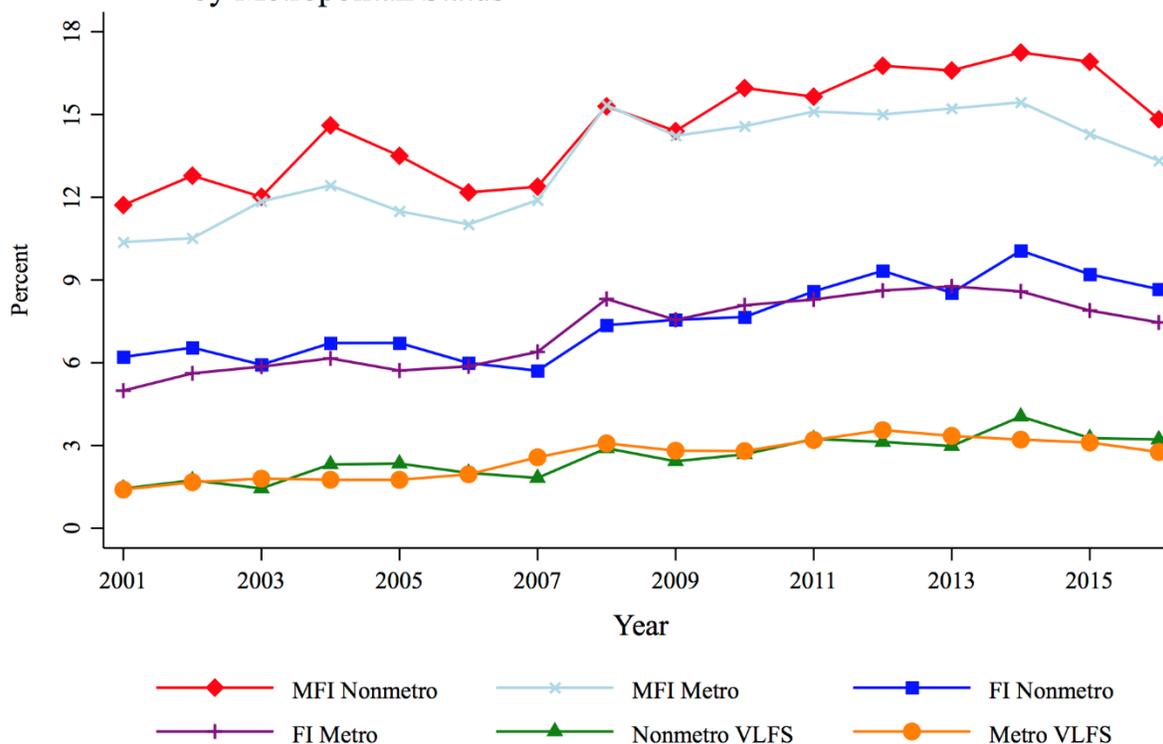
Income Not Reported	-0.83	-0.49	-0.16
By Race			
White	-1.19***	-0.78***	-0.58***
Black	-1.65	1.56	2.13**
Other	0.17	0.74	-0.41
By Hispanic Status			
Hispanic	3.39*	3.56**	-1.10
Non-Hispanic	-1.54***	-0.80***	-0.21
By Marital Status			
Married	-0.97**	-0.41	-0.16
Widowed	-0.37	0.05	-0.16
Divorced or Separated	-1.64	-0.76	-0.78
Never Married	-2.73	-0.63	-0.53
By Metropolitan Location			
Non-Metro	-2.09**	-0.54	-0.05
Metro	-0.97**	-0.43	-0.34*
By Age			
60-64	-0.99	-0.38	-0.39
65-69	-1.45*	-0.52	-0.25
70-74	-0.50	-0.31	-0.05
75-79	-2.17**	-0.48	-0.40
80 and older	-0.82	-0.53	-0.35
By Employment Status			
Employed	-1.00	-0.15	-0.24
Unemployed	2.19	4.54	3.51
Retired	-1.47***	-0.70**	-0.16
Disabled	-0.66	-0.81	-2.07*
By Gender			
Male	-0.91	-0.53	-0.43
Female	-1.29**	-0.35	-0.17
By Grandchild Present			
No Grandchild Present	-1.01***	-0.41	-0.22
Grandchildren Present	-3.02	-0.58	-1.58

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Source: Authors' calculations. The numbers in the table reflect percentage point changes from 2015-2016. The asterisks denote statistical significance at the following levels: \*\*\* p<0.01; \*\* p<0.05; \* p<0.1

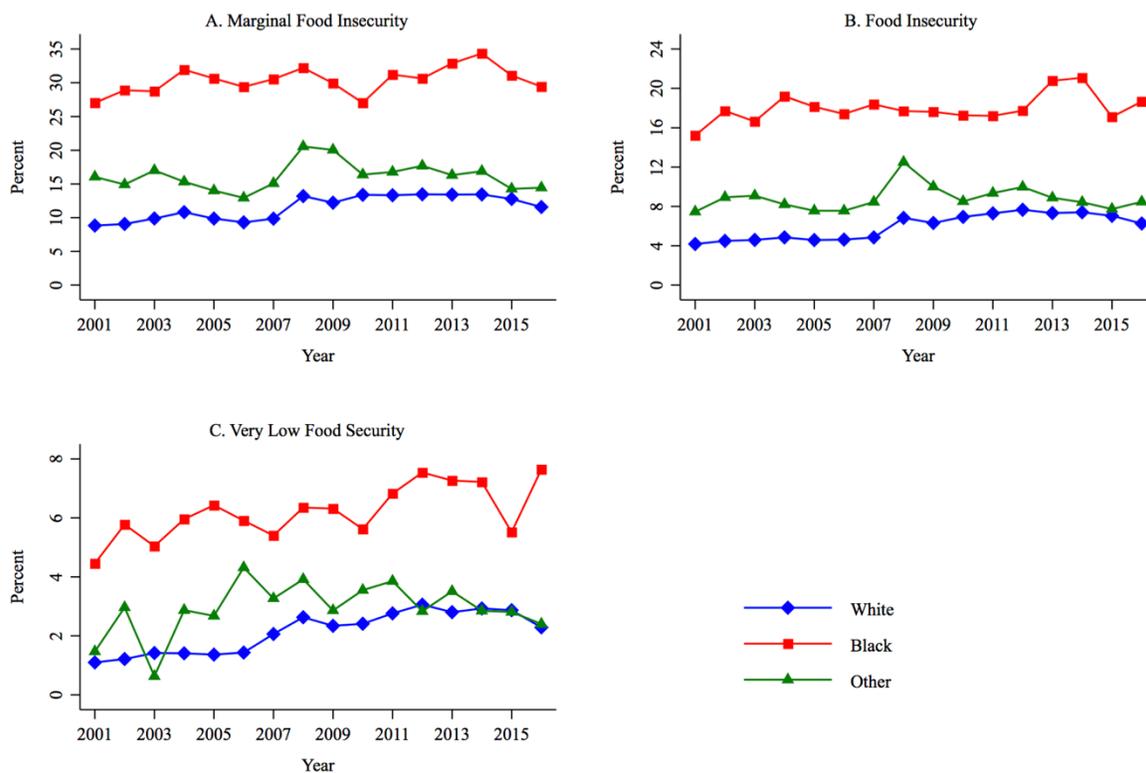
In the next set of figures, we examine trends in food insecurity since 2001 across a variety of subpopulations found in Tables 1 and 5. We begin in Figure 2 with trends in food insecurity for seniors living in metropolitan areas versus nonmetropolitan areas. The figure shows that, for most years, food insecurity rates were higher in nonmetro areas for the marginal food insecurity and food insecurity measures.

Figure 2. Trends in Food Insecurity among Senior Americans by Metropolitan Status



Panel A of Figure 3 depicts trends in marginal food insecurity across different races, while panels B and C present similar trends for food insecurity and very low food security. As discussed above, the rates of food insecurity for African-Americans are substantially higher than whites. These figures reveal that these differences were present in each year from 2001 to 2016, albeit this gap narrowed substantially since 2014 except for the very low food security measure. Similarly, for marginal food insecurity and food insecurity, rates are higher among the “other” category than among whites in all years for all measures except four (2003, 2012, 2014, and 2015) for very low food security.

Figure 3. Trends in Alternative Measures of Food Insecurity by Race



In panels A-C of Figure 4 we present trends broken down by Hispanic status. For both marginal food insecurity and food insecurity, the rates are higher among Hispanics than non-Hispanics. While the gap narrowed in 2015, it went back up in 2016. The trends in very low food security are similar, with the exception of 2005 which saw higher rates among non-Hispanics and in 2016 where the gap narrowed rather than increased.

Figure 4. Trends in Alternative Measures of Food Insecurity by Ethnicity

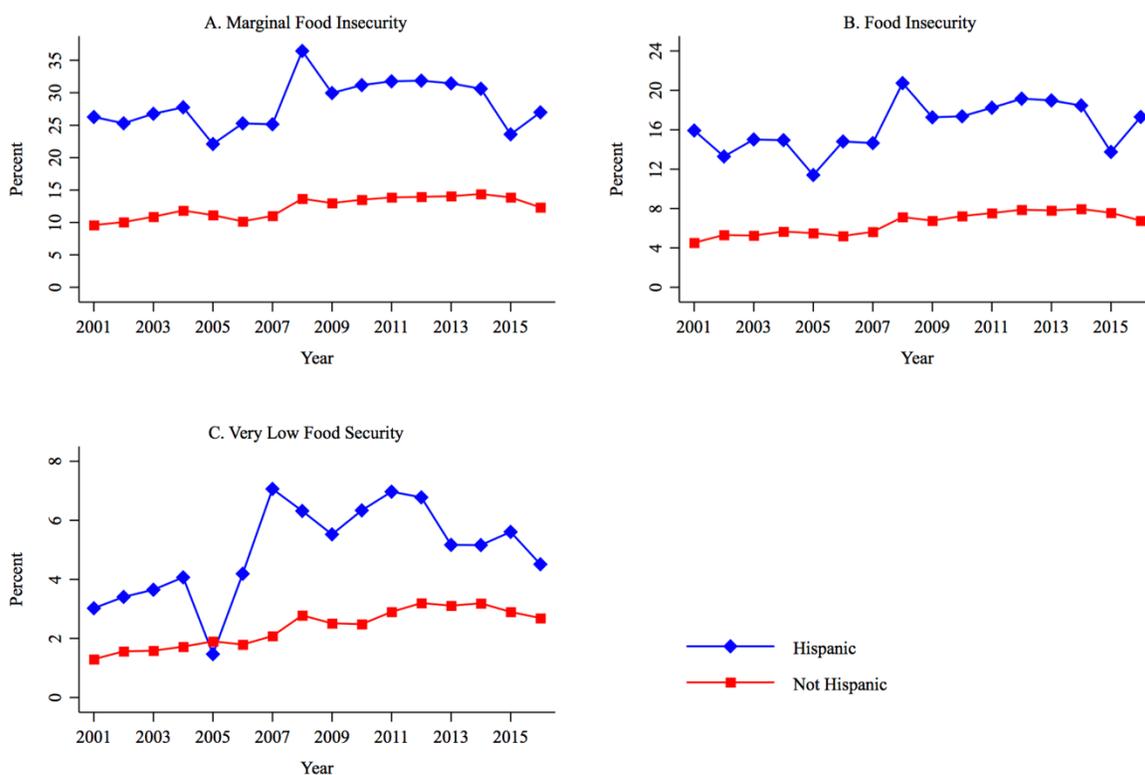
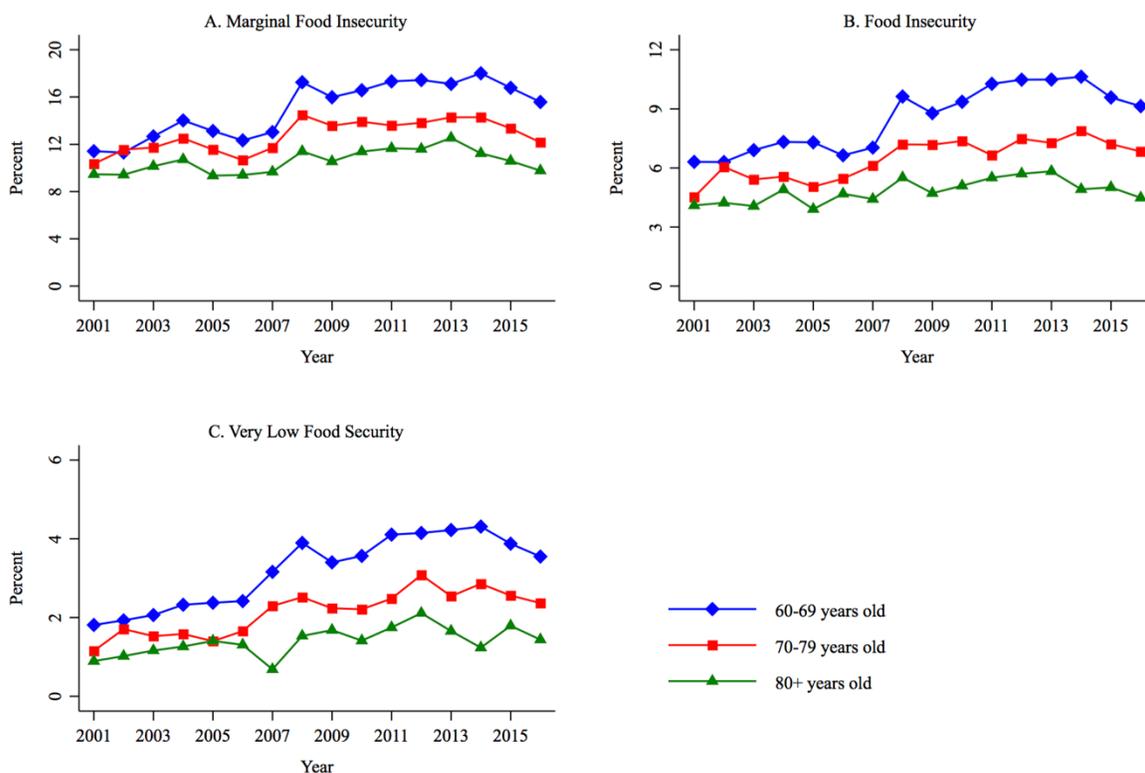


Figure 5 presents a parallel set of results for seniors broken down into three age groups—60-69 years old in panel A, 70-79 years old in panel B, and age 80 and older in panel C. With the exception of 2002 for marginal food insecurity, the rates of food insecurity are highest for those between 60 and 69, followed by 70-79-year olds, and 80+-year olds. As seen in panel A, there were declines since 2014 among all age categories for marginal food insecurity, albeit all three are higher than in 2007. A similar story holds for the series since 2015 in panels B and C.

Figure 5. Trends in Alternative Measures of Food Insecurity by Age



### 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 12 seniors were food insecure in 2016. Even more troubling is the astonishing 200% increase in the number of very low food secure seniors in 2016 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 (Berkowitz et al., 2017).

## APPENDIX

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 2016, this results in 21,948 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 <b>often, sometimes</b> , or never true for you in the last 12 months?	x	x
2. “The food that we bought just didn’t last and we didn’t have money to get more.” Was that <b>often, sometimes</b> , or never true for you in the last 12 months?	x	x
3. “We couldn’t afford to eat balanced meals.” Was that <b>often, sometimes</b> , 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 <b>often, sometimes</b> , 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? ( <b>Yes/No</b> )	x	x
6. “We couldn’t feed our children a balanced meal, because we couldn’t afford that.” Was that <b>often, sometimes</b> , 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? ( <b>Yes/No</b> )	x	x
8. (If yes to Question 5) How often did this happen— <b>almost every month, some months but not every month</b> , 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 <b>often, sometimes</b> , 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? ( <b>Yes/No</b> )	x	x
11. In the last 12 months, did you lose weight because you didn’t have enough money for food? ( <b>Yes/No</b> )	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? ( <b>Yes/No</b> )	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? ( <b>Yes/No</b> )	x	x
14. In the last 12 months, were the children ever hungry but you just couldn’t afford more food? ( <b>Yes/No</b> )	x	
15. (If yes to Question 13) How often did this happen— <b>almost every month, some months but not every month</b> , 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? ( <b>Yes/No</b> )	x	
17. (If yes to Question 16) How often did this happen— <b>almost every month, some months but not every month</b> , 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? ( <b>Yes/No</b> )	x	

Notes: Responses in bold indicate an “affirmative” response.

**Appendix Table 2:** Selected Characteristics of Senior Americans Age 60 and older in 2016

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Income Categories	
Below the Poverty Line	0.08
Between 100% and 200% of the Poverty Line	0.14
Above 200% of the Poverty Line	0.49
Missing Income	0.29
Racial Categories	
White	0.83
Black	0.10
Other	0.06
Hispanic Status	
Hispanic	0.09
Non-Hispanic	0.91
Marital Status	
Married	0.61
Widowed	0.18
Divorced or Separated	0.15
Never Married	0.06
Metropolitan Location	
Non-Metro	0.18
Metro	0.82
Age	
60 to 64	0.29
65 to 69	0.25
70 to 74	0.18
75 to 79	0.12
80 and older	0.17
Employment Status	
Employed	0.28
Unemployed	0.01
Retired	0.61
Disabled	0.09
By Gender	
Male	0.45
Female	0.55
Grandchild Present	
No Grandchild Present	0.96
Grandchild Present	0.04

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