

MEALS ON WHEELS

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Senior Hunger in America 2010: An Annual Report

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EXECUTIVE SUMMARY

This study is the first in a series of annual reports on the state of senior hunger in the United States. In the report we provide an overview of the extent and distribution of food insecurity in 2010, along with trends over the past decade 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 Core Food Security Module (CFSM), the module used by the USDA to establish the official food insecurity rates of households in the United States, our emphasis here is on quantifying the senior population facing the *threat of hunger* (i.e. marginally food insecure). A supplement to this report also presents evidence on seniors at *risk of hunger* (i.e. food insecure) and on seniors *facing hunger* (i.e. very low food secure).

The Great Recession has caused extreme hardship on many families in the United States, and senior Americans are no exception. Based on the barometer of food insecurity, this report demonstrates that our seniors may face more challenges than initially thought. Unlike the population as a whole, food insecurity among those age 60 and older actually increased between 2009 and 2010. These increases were most pronounced among the near poor, whites, widows, non-metro residents, the retired, women, and among households with no grandchildren present.

Specifically, in 2010 we find that

- 14.85% of seniors, or more than 1 in 7, face the threat of hunger. This translates into 8.3 million seniors. In contrast, in Ziliak, et al. (2008) we reported that as of 2005 1 in 9 seniors faced the threat of hunger.
- 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) are most likely to be threatened by hunger.
- Out of those seniors who face the threat of hunger, the majority have incomes above the poverty line and are white.
- From 2001 to 2010, the number of seniors experiencing the threat of hunger has increased by 78%. Since the onset of the recession in 2007 to 2010, the number of seniors experiencing the threat of hunger has increased by 34%.

That seniors in our country are going without enough food due to economic constraints is a serious problem in-and-of-itself. In addition, though, in previous work (Ziliak, et al. 2009) we showed that even after controlling for other confounding factors, food insecurity is associated with a host of poor health outcomes for seniors such as reduced nutrient intakes and limitations in activities of daily living. This implies that the recent increase in senior hunger will likely lead to additional nutritional and health challenges for our nation.

I. FOOD INSECURITY IN 2010

We document the state of hunger among senior Americans ages 60 and older in 2010 using data from the Current Population Survey (CPS). In December of each year, households respond to a series of 18 questions (10 if there are no children present) that make up the Core Food Security Module (CFSM) in the CPS. Each question is designed to capture some aspect of food insecurity and, for some questions, the frequency with which it manifests itself.¹ Respondents are asked questions about their food security status in the last 30 days as well as over the past 12 months. We focus on the questions referring to the past year.

Consistent with the nomenclature and categorizations in Ziliak et al. (2008) and Ziliak and Gundersen (2009), we consider three characterizations of food insecurity: the *threat of hunger*, which obtains when a person is marginally food insecure by answering in the affirmative to one or more questions on the CFSM; the *risk of hunger*, which arises when a person is food insecure by answering in the affirmative to three or more questions on the CFSM; and *facing hunger*, which obtains when the person is very low food secure by answering in the affirmative to at least 8 questions in households with children and at least 6 questions in households without children. This means that the threat of hunger is the broadest category of food insecurity since it encompasses those responding to at least one question on the CFSM. The next broadest category is the risk of hunger since this group encompasses those who are either food insecure or very low food secure. This means that the most narrow, and in turn, most severe, category in our taxonomy is facing hunger. Box 1 summarizes the categories. For the purpose of this report we focus on the threat of hunger. A supplement to this report provides a parallel analysis for seniors at risk of hunger and those facing hunger.

Box 1: Categories of Food Insecurity

	USDA Classification	Number of Affirmative Responses to CFSM
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 2010. Overall, 14.85%, or just over 1 in 7, faced the threat of hunger, which translates into 8.3 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, 47.06% face the threat of hunger. In contrast, for seniors with incomes greater than twice the poverty line, this fraction falls dramatically to 6.97%. Turning to race, African American seniors face the threat of hunger that is more than double (132% higher) that of white seniors. Similarly, Hispanics (who can be of any racial category) face the threat of

¹ See the Data Appendix for details on the survey sample, including the full list of CFSM questions in Appendix Table 1.

hunger 131% higher than non-Hispanics. Moreover, seniors in nonmetro areas face the threat of hunger that is significantly higher by about 1.5 percentage points in 2010 than seniors in metro areas.

Table 1. The Extent of the Threat of Senior Hunger in 2010

Overall	14.85%
By Income	
Below the Poverty Line	47.06
Between 100% and 200% of the Poverty Line	30.77
Above 200% of the Poverty Line	6.97
Income Not Reported	9.88
By Race and Ethnicity	
White	11.70
Black	27.11
Other	16.37
Hispanic	31.17
By Marital Status	
Married	10.60
Widowed	18.83
Divorced or Separated	25.41
Never Married	19.43
By Metropolitan Location	
Non-Metro	15.96
Metro	14.58
By Age	
60-64	17.58
65-69	15.15
70-74	15.05
75-79	12.51
80 and older	11.39
By Employment Status	
Employed	10.89
Unemployed	30.52
Retired	12.46
Disabled	38.47
By Gender	
Male	13.15
Female	16.22
By Grandchild Present	
No Grandchild Present	13.99
Grandchildren Present	30.86

Source: Authors' calculations from the December 2010 Current Population Survey.

Hunger threat among divorced or separated seniors is two and a half times greater than married seniors, and younger seniors, especially those under 75, are at heightened threat in comparison to those over age 75. Likewise, the threat of hunger is over 3 times higher among the disabled than the retired, and if a grandchild is present, the prospects for being under the threat of hunger greatly exceed those households with no grandchild present.

Table 1 allows us to see the proportions of persons within any category who are marginally food insecure and, with this information, we can make statements about who is most

in danger of the threat of hunger. For example, those with lower incomes are substantially more likely to be food insecure than those with higher incomes. Also of interest, though, is the distribution of senior hunger. In other words, out of those who are under the threat of hunger, what proportion fall into a particular category? We present these results in Table 2.

As seen in Table 2, the majority of seniors under the threat of hunger have incomes above the poverty line. For example, out of those reporting income, 73% of seniors have incomes above the poverty line. A similar story holds for race – while African-Americans are at greater threat of hunger than whites, about 3 in 4 marginally food insecure seniors are white. As discussed above, there is a decline in hunger threat for older seniors. It still remains, however, that 13.8% of seniors facing the threat of hunger are over age 80.

Table 2. The Distribution of Threat of Senior Hunger in 2010

By Income	
Below the Poverty Line	22.86%
Between 100% and 200% of the Poverty Line	36.08
Above 200% of the Poverty Line	21.74
Income Not Reported	19.32
By Race	
White	76.96
Black	17.32
Other	5.72
By Ethnicity	
Non-Hispanic	84.16
Hispanic	15.84
By Marital Status	
Married	42.56
Widowed	27.77
Divorced or Separated	23.14
Never Married	6.53
By Metropolitan Location	
Non-Metro	21.10
Metro	78.90
By Age	
60-64	36.16
65-69	22.14
70-74	16.75
75-79	11.15
80 and older	13.80
By Employment Status	
Employed	19.55
Unemployed	4.15
Retired	51.99
Disabled	24.31
By Gender	
Male	39.60
Female	60.40
By Grandchild Present	
No Grandchild Present	89.53
Grandchildren Present	10.47

Source: Authors' calculations from the December 2010 Current Population Survey.
The numbers in the table sum to 100 percent within each subcategory.

In Table 3 we present state level estimates of senior hunger for 2010. The range for the threat of hunger spans from 5.52% in North Dakota to 21.53% in Mississippi. In Table 4 we highlight the ten states with the highest rates of senior hunger in 2010. With the lone exceptions of Rhode Island and Washington in the facing hunger category, seniors living in states located in the south and southwest face the greatest unmet food need in 2010.

Table 3. State-Level Estimates of Threat of Senior Hunger in 2010

AL	17.29	MT	13.21
AK	16.02	NE	7.65
AZ	12.81	NV	16.50
AR	19.42	NH	9.18
CA	16.48	NJ	12.31
CO	11.48	NM	21.24
CT	10.63	NY	13.79
DE	8.93	NC	15.66
DC	14.70	ND	5.52
FL	16.64	OH	15.78
GA	17.12	OK	15.97
HI	15.90	OR	12.49
ID	8.09	PA	14.80
IL	12.47	RI	15.28
IN	10.14	SC	17.10
IA	11.20	SD	11.05
KS	12.77	TN	17.57
KY	15.30	TX	18.14
LA	13.95	UT	14.22
ME	12.16	VT	11.60
MD	12.85	VA	9.27
MA	10.52	WA	14.27
MI	14.36	WV	15.35
MN	7.41	WI	10.60
MS	21.53	WY	12.82
MO	15.51		

Source: Authors' calculations. The numbers are two-year averages found by summing the number of marginally food insecure seniors by state across the 2009-2010 December Current Population Surveys and dividing by the corresponding total number of seniors in each state across the two years.

Table 4. Top Ten States in Terms of Threat of Senior Hunger in 2010

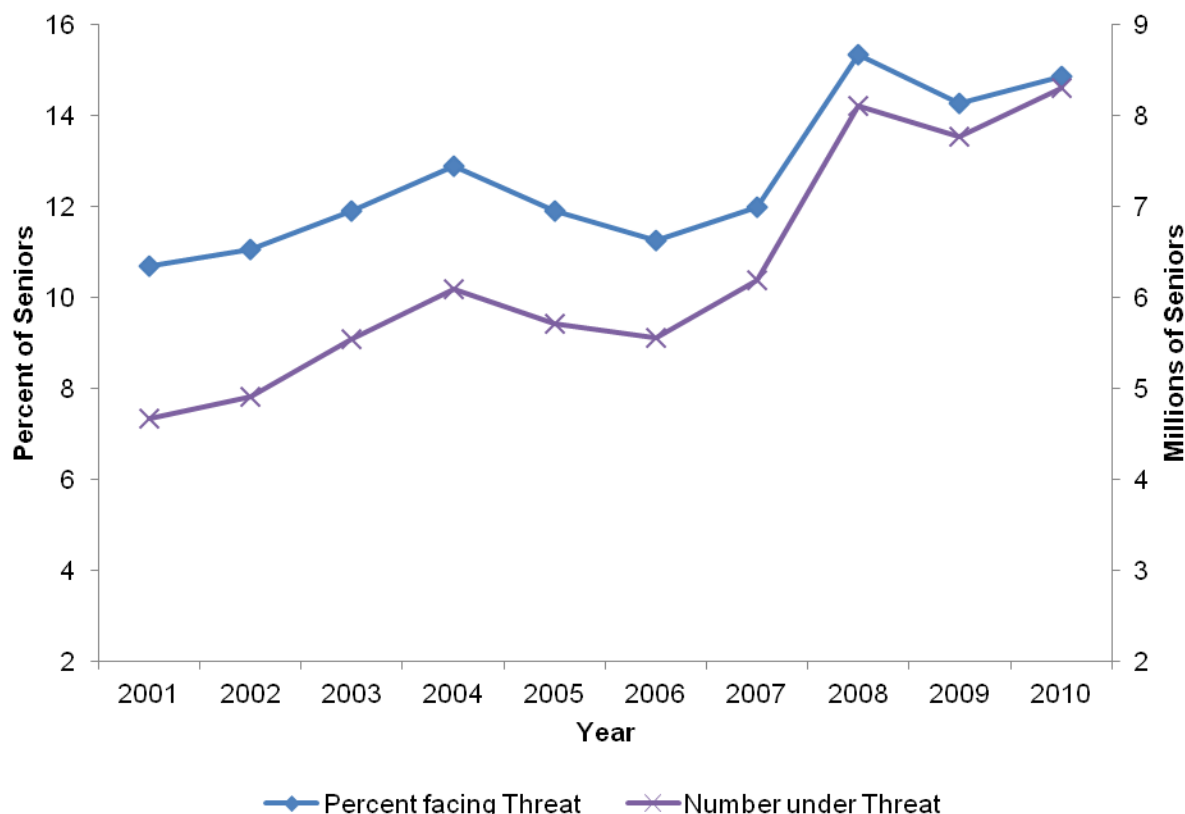
MS	21.53
NM	21.24
AR	19.42
TX	18.14
TN	17.57
AL	17.29
GA	17.12
SC	17.10
FL	16.64
NV	16.50

II. FOOD INSECURITY OVER TIME

To help place the 2010 estimates into perspective, we now examine trends in marginal food insecurity over the past decade. We describe the trends for the full population of seniors along with select subgroups of seniors. In Figure 1 we display results for the full population in terms of the proportion (left-hand axis) and number (right-hand axis) of households in millions. As seen there, there was substantial increase in food insecurity since the start of the recession in 2007. Indeed the fraction of seniors under the threat of hunger, increased by one-quarter from 2007-2010. And reflecting the fact that an increasing fraction of the U.S. population is over age 60, the numbers of seniors threatened by hunger has increased by over one-third since 2007.

In a striking difference from the total population, between 2009 and 2010, the percentage

Figure 1. Trends in Threat of Hunger among Senior Americans



of seniors threatened by hunger increased by a statistically significant amount—from 14.26% to 14.85% ($p=0.062$). Table 1A of Coleman-Jensen, et al. (2011) shows an actual decline in the risk of hunger (i.e. food insecurity) and in those facing hunger (i.e. very low food security) for the U.S. population overall.² This suggests that the Great Recession had more enduring effects with respect to food insecurity for older Americans than for the general population. For the decade as a whole, there was a 39% increase in the fraction under the threat of hunger, and in terms of the numbers of seniors affected, the corresponding increase was 78%.

In Table 5 we take a deeper look into underlying changes in the composition of seniors facing marginal food insecurity from 2009 to 2010. The table presents percentage point changes in marginal food insecurity by the same set of socioeconomic characteristics in Table 1. In the first row, the results for the full population of seniors are reported and, as discussed above, the increases in food insecurity rates from 2009 to 2010 are evident there. As seen in the subsequent rows, the statistically significant increases in the threat of hunger are not shared equally by the different categories. Specifically, we see that the increases were primarily among near-poor

² For the general population, the decline in food insecurity was not statistically significant but the decline in very low food security was statistically significant. In our supplement to this report we show that there was also a statistically significant increase in the risk of hunger among seniors, and no statistical change in those facing hunger.

Table 5. Changes in the Composition of Threat of Senior Hunger from 2009 to 2010

Overall	0.58*
By Income	
Below the Poverty Line	0.49
Between 100% and 200% of the Poverty Line	2.42***
Above 200% of the Poverty Line	0.35
Income Not Reported	0.60
By Race and Ethnicity	
White	1.09***
Black	-2.70*
Other	-3.28**
Hispanic	1.23
By Marital Status	
Married	0.02
Widowed	1.84***
Divorced or Separated	0.04
Never Married	1.15
By Metropolitan Location	
Non-Metro	1.56***
Metro	0.35
By Age	
60-64	0.24
65-69	1.02
70-74	0.16
75-79	0.59
80 and older	0.83
By Employment Status	
Employed	0.02
Unemployed	0.41
Retired	0.82**
Disabled	1.50
By Gender	
Male	0.34
Female	0.78*
By Grandchild Present	
No Grandchild Present	0.81***
Grandchildren Present	-4.95***

.Note: The asterisks denote statistical significance at the following levels:

*** p<0.01; ** p<0.05; * p<0.1

seniors with income between one and two times the poverty line, by whites, by widows, by non-metro residents, by the retired, by women, and among households with no grandchildren present. In contrast there were statistically significant declines in the threat of hunger among African Americans and other races, and among households with grandchildren present.

In the next set of figures we examine trends in the threat of hunger over the past decade across a variety of subpopulations found in Tables 1 and 5. We begin in Figure 2 with trends in marginal food insecurity for seniors living in metropolitan areas versus nonmetropolitan areas. The figure shows that, in general, there were not important differences between seniors living in metro and non-metro areas.

Figure 2. Trends in Threat of Hunger among Senior Americans by Metropolitan Status

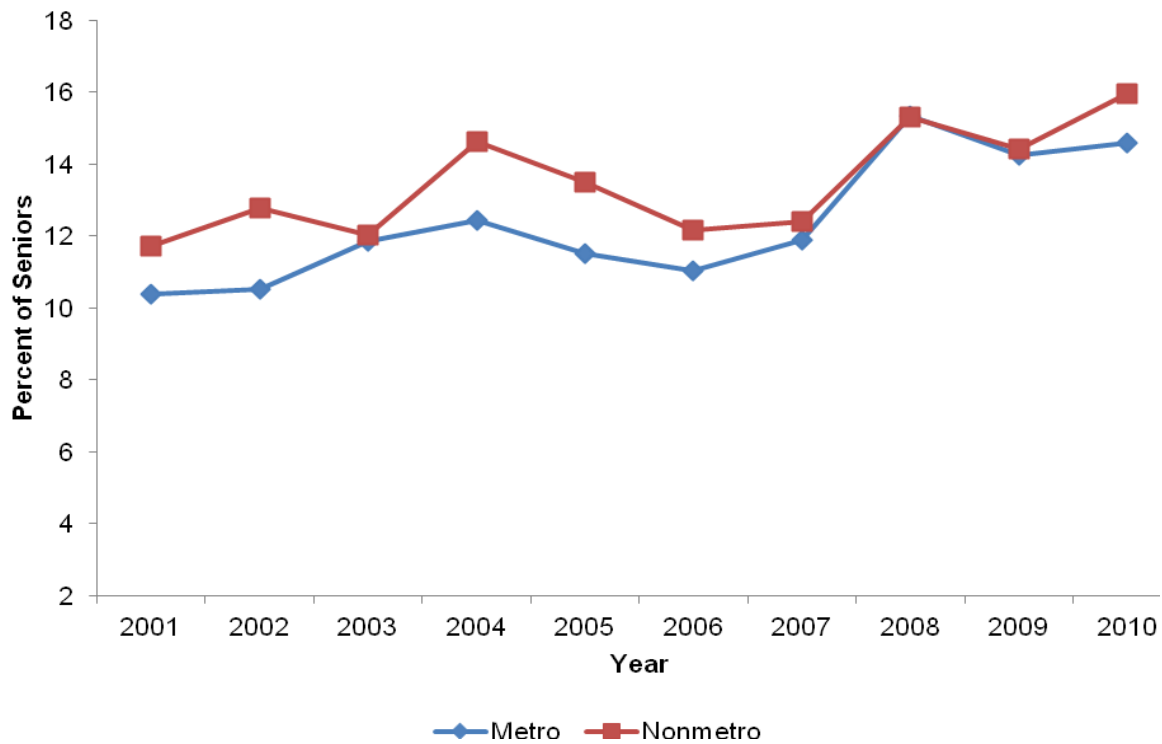
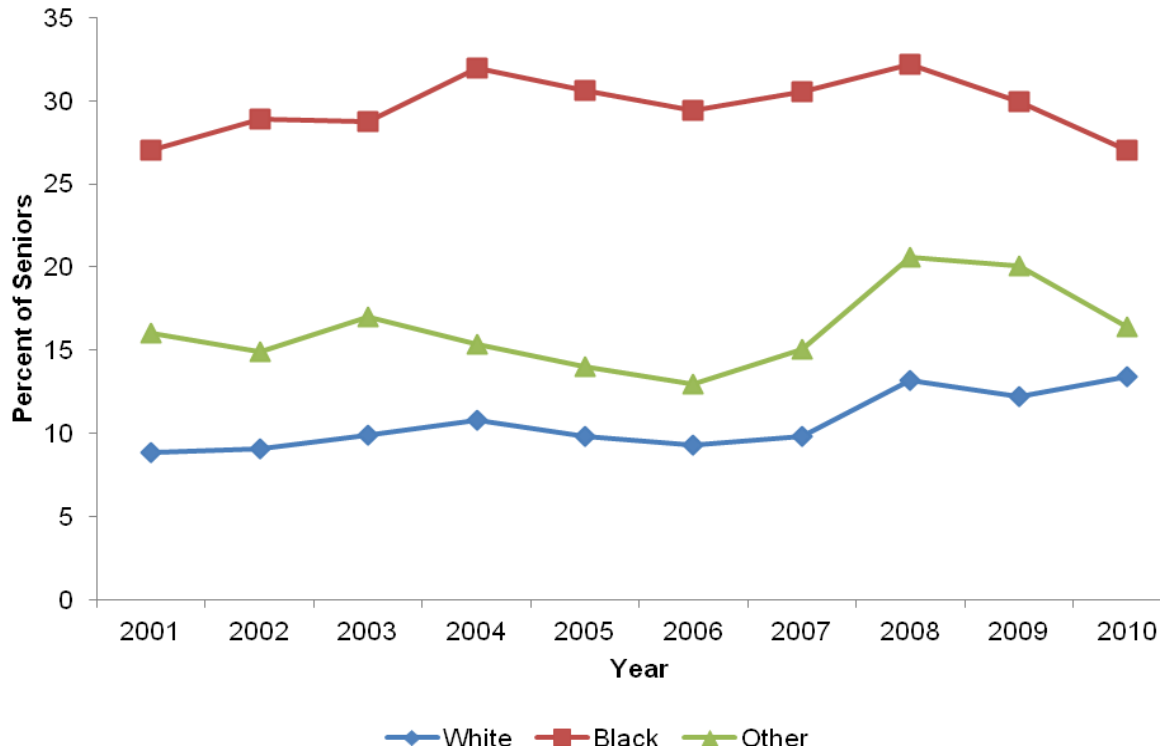


Figure 3 depicts trends in the threat of hunger across different races. As discussed above, the rates of food insecurity are substantially higher among blacks than whites. The figure reveals that these differences were present in each year from 2001 to 2010. In addition, for all years, seniors of other races have a higher threat of hunger than whites.³ While the rates of marginal food insecurity are higher for other groups, the growth in hunger threat among seniors after the Great Recession has primarily been pushed upward by white seniors.

³ This category includes those American Indians, Asians, and Pacific Islanders.

Figure 3. Trends in Threat of Hunger among Senior Americans, by Race



In Figure 4 we present trends based on Hispanic ethnicity. In most years Hispanics face threats of hunger 2-3 times higher than non-Hispanics. Along with having higher rates than non-Hispanics, the patterns over time have differed for this group. In particular, unlike non-Hispanics, Hispanics saw declines in food insecurity after the sharp increase in 2008.

Figure 5 presents a parallel set chart for seniors of three broad age groups—60-69 years old, 70-79 years old, and age 80 and older. As seen in Figure 5, there were sharp increases in the threat of hunger from 2007 to 2008 across all three age groups and these rates remain, in 2010, substantially above those found in 2007.

Figure 4. Trends in Threat of Hunger among Senior Americans, by Hispanic Ethnicity

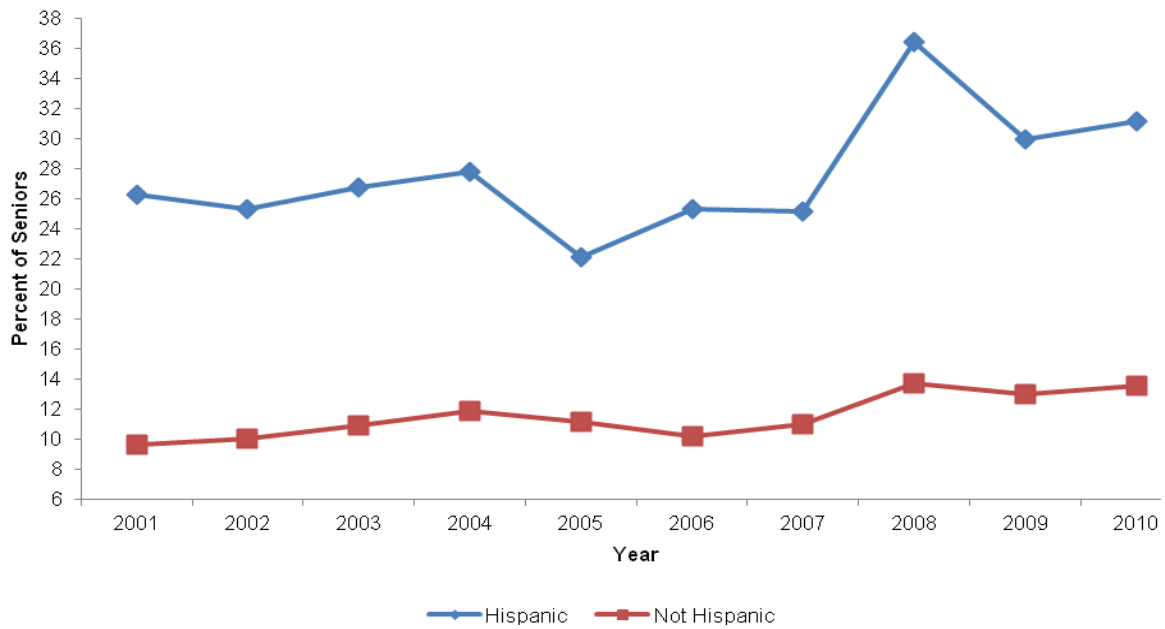
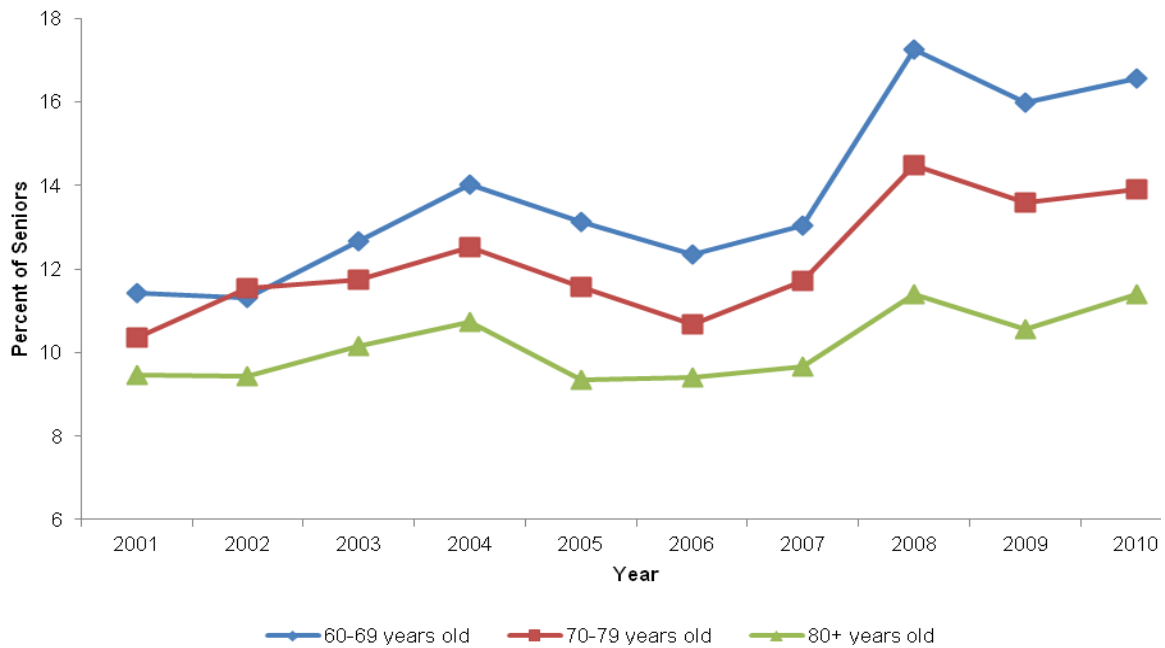


Figure 5. Trends in Threat of Hunger among Senior Americans, by Age



III. CONCLUSION

This report demonstrates that the threat of hunger among seniors in America is a growing crisis facing the nation. Many in the policy community were alarmed when we released our initial study that showed that as of 2005 1 in 9 seniors faced the threat of hunger (Ziliak, et al. 2008). In the aftermath of the Great Recession, as of 2010, over 1 in 7 seniors faced the threat. Given the compelling evidence that food insecurity is associated with a host of poor nutrition and health outcomes among seniors, this report implies that the recent increase in senior hunger will likely lead to additional public health challenges for our country. This suggests that a potential avenue to stem the growth of health care expenditures on older Americans is to ameliorate the problem of food insecurity.

DATA 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. Given the rotating sequence of participation in the CPS, upwards of 50 percent of the sample is observed in two consecutive years. In past reports (e.g. Ziliak, Gundersen, and Haist 2008; Ziliak and Gundersen 2009, 2011) we have only utilized information from the second interview because many of our analyses involved pooling observations across many years and we did not want to use repeat households. For this report, however, our focus is on representative cross sections and thus we use the entire sample for each wave (whether the person is a first interview or a second interview). Because our focus is on hunger among seniors, our CPS sample is of persons age 60 and older. In 2010 this results in 21,675 sample observations. Appendix Table 2 presents selected summary statistics for the CPS sample.

Appendix Table 1: Questions on the Core Food Security Module

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	x
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)	x	

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

Appendix Table 2: Selected Characteristics of Senior Americans Age 60 and older in 2010

	Percent
Income Categories	
Below 50% of the Poverty Line	1.62
Between 50% and 100% of the Poverty Line	5.59
Between 100% and 200% of the Poverty Line	17.41
Above 200% of the Poverty Line	46.34
Missing Income	29.04
Racial Categories	
White	85.3
African American	9.52
Other	5.18
Hispanic Ethnicity	7.54
Marital Status	
Married	59.59
Widowed	21.9
Divorced or Separated	13.52
Never Married	4.99
Homeowner	83.54
Non-Metro	19.63
Region	
Northeast	19.84
Midwest	21.74
South	36.58
West	21.85
Age	
60 to 64	30.55
65 to 69	21.7
70 to 74	16.53
75 to 79	13.23
80 and older	18
Employment Status	
Employed	26.66
Unemployed	2.02
Retired	61.94
Disabled	9.38
Education Level	
Less Than High School	17.07
High School Diploma	34.66
Some College	22.59
College Degree	25.68
Food Stamp Recipient	5.16
Grandchild or Parent Present	
No Grandchild and Parent Present	94.96
Grandchild and Parent Present	3.33
Grandchild Present	1.7
Female	55.3
Living Alone	26.25

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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 (2011).

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