



[www.SeniorsCount.org](http://www.SeniorsCount.org)

***Seniors Count!***  
**Working Paper Series, No. 3**  
July 20, 2011

# **Invisible Poverty:**

## **New Measure Unveils Financial Hardship in Michigan's Older Adult Population**

---

**Thomas B. Jankowski, PhD, Jason C. Booza, PhD, and Carrie A. Leach, MPA**

**Institute of Gerontology  
Wayne State University  
87 East Ferry Street  
Detroit, MI 48202**



**Adult Well Being Services  
1423 Field  
Detroit, MI 48214**

The *Seniors Count!* project is funded by the Kresge Foundation, the Community Foundation for Southeast Michigan, and the American House Foundation



## Summary

In this paper we use a recently developed measure, the Elder Economic Security Standard™ Index, or Elder Index<sup>1</sup>, to evaluate the economic security of Michigan residents age 65 and older. The Elder Index benchmarks the actual costs of living for older adults, taking into account expenses for housing, food, transportation, health care, and other necessities at a basic standard of living. Our analysis shows that Michigan seniors face a much more widespread risk of financial hardship than previously understood. When gauged by Elder Index thresholds, the incomes of more than one of every three seniors in Michigan are too low to meet their basic needs, even with the assumption of good health and moderate health care costs. This is not a phenomenon limited to blighted urban areas or desolate rural areas; in even our most affluent counties, at least one in every four people age 65 and older cannot make ends meet. This widespread economic struggle faced by Michigan seniors is fairly hidden from public sight, making it an invisible poverty that takes its toll on older individuals, their families and caregivers and the community at large.

## Key Facts

- Unlike the traditional method of measuring poverty, the Elder Index gauges the economic security of older adults by accounting for the actual costs of living under different circumstances and in different geographical areas.
- The official poverty rate of 9.7% for Michigan's seniors belies the true struggle faced by those age 65 and older based on the difference between their income and their costs of living, representing a dramatic understatement of income inadequacy.
- In Michigan, about 37% of people age 65 or older who are retired and live alone or with a retired spouse, live on incomes that fall below the Elder Index. This means that well over a third of Michigan's typical seniors are not economically secure.
- Economic insecurity is widespread among Michigan seniors, ranging from a high of over 46% in Huron, Tuscola, and Sanilac Counties to a low of 26% in Monroe County. Even in the counties with the lowest rates of elder economic insecurity, more than one of every four seniors struggles to make ends meet every month.
- Michigan's largest city, Detroit, has a population in which about 60% of community-dwelling retired seniors cannot meet their living expenses with their current income.
- Economic security is much more elusive for those seniors who depend almost entirely on Social Security for their income, compared to those who also receive pension, retirement, or investment income.
- Elder economic insecurity in Michigan disproportionately affects those who live alone, are 85 years of age and older, rent rather than own their housing, and African American elders. Most notably, because they are more likely to live longer, live alone, and have lower incomes, women make up the largest group of economically insecure seniors.

---

<sup>1</sup> Gerontology Institute at the University of Massachusetts Boston, and Wider Opportunities for Women. (2009). *Elder Economic Security Initiative™: The Elder Economic Security Standard™ Index for Michigan*. Lansing, MI: Elder Law of Michigan. [http://www.elderlawofmi.org/file\\_download/d5fbdac6-e1b2-479f-93dc-9531a85bf7bc](http://www.elderlawofmi.org/file_download/d5fbdac6-e1b2-479f-93dc-9531a85bf7bc)

## Introduction

According to US Census Bureau data, the median annual household income in Michigan for households headed by a person age 65 or older is \$32,392.<sup>2</sup> Only 78,521 senior-headed households in Michigan, out a total of 813,013, have incomes that fall below the Census poverty threshold, an official poverty rate of about 9.7%.<sup>3</sup> However, a closer look at the numbers reveals that a large number of additional households headed by older adults fall close to the poverty level, with around 103,000 senior-headed households in Michigan, or about 12.7%, reporting income from 100% to 150% of the threshold.<sup>4</sup> It should be noted that the Census poverty threshold is quite meager; for a senior-headed household of two people in 2008, the threshold was \$13,014, making the 150% level only \$19,521. This is considered to be above poverty, but is still a very low income for a two-person household by any modern American standards. With over 22.3% of senior-headed households surviving near or below the Census poverty threshold, many older Michiganders face significant financial challenges.

Because of the shortcomings of the official poverty measure used by the Census, serious questions remain about the precise extent of those financial challenges and the true degree of economic vulnerability faced by Michigan seniors. The poverty thresholds are based upon outdated and inaccurate methods and have been found to be insensitive to differences across demographic groups, geographical areas, and historical periods.<sup>5</sup> Since they are widely recognized to understate levels of income insufficiency and undercount households that lack adequate means to support themselves, researchers and policymakers often resort to using arbitrary multiples, as we have done above. This approach attempts to correct for the poverty thresholds' underestimates of actual poverty, but it lacks the methodological rigor that such a serious topic deserves. Fortunately, recent work has been done to develop new measures that take into consideration the actual cost of living under different circumstances and in different geographic regions. In this report, we build on one of those measures to show that when actual living expenses are considered, the number of senior-headed households in Michigan with incomes less than adequate to support a basic standard of living—even many of those with incomes considered well above the poverty line—is shockingly large.

In 2009, as part of the national Elder Economic Security Initiative™ at Wider Opportunities for Women (WOW), the Michigan Elder Economic Security Standard™ Index (Elder Index) was tabulated for Elder Law of Michigan (ELM) by the Gerontology Institute at the University of Massachusetts Boston (GI-UMB) and WOW. The Michigan Elder Index was developed to provide a measure of economic security, which is defined as “the financial status where elders have sufficient income (from Social Security, pensions, retirement savings, and other sources) to cover basic and necessary living expenses.”<sup>6</sup> The index rests on the premise that elders should be able to meet their expenses in their homes and in their communities

---

<sup>2</sup> U.S. Census Bureau, 2006-2008 American Community Survey, Table B19049.

<sup>3</sup> U.S. Census Bureau, 2006-2008 American Community Survey, Table B17017.

<sup>4</sup> U.S. Census Bureau, 2006-2008 American Community Survey, Public Use Microdata Sample analysis via IPUMS (see footnote 7).

<sup>5</sup> Citro, Constance F. and Michael, Robert T. (Eds.). (1995). *Measuring Poverty: A New Approach*. Washington, DC: National Academy Press.

<sup>6</sup> Gerontology Institute at the University of Massachusetts Boston, and Wider Opportunities for Women, op. cit., p. ix.

without public financial support. The Elder Index contains income sufficiency benchmarks based on actual local market costs for housing, food, transportation, health care and other living expenses. It is sensitive to geographical differences in costs across the State of Michigan, with estimates for all 83 counties and the City of Detroit, and it varies according to the living circumstances and health of seniors. There are separate Elder Index benchmarks for singles and couples, and for renters, homeowners with a mortgage, and homeowners without a mortgage, as well as for those in excellent, good, or poor health and those in need of long term care services. The purpose of this report is to use these benchmarks, which are expressed as the minimum amount of money needed to cover basic expenses, and apply them to reliable demographic data to estimate the actual number of seniors having incomes above and below the threshold for each geographic area in Michigan.

## Methodology

We began by identifying a representative data set that contains individual/household-level income data as well as demographic characteristics that would help us to define the population for which the Elder Index is calculated. We chose the 2006-2008 American Community Survey (ACS) Public Use Microdata Sample (PUMS) provided by the Minnesota Population Center through their Integrated Public Use Microdata Series (IPUMS).<sup>7</sup> The ACS provides the most timely and representative data available within our geographical areas, and the microdata give us the critical ability to define population parameters and generate cross-tabulations for those populations that are not limited by the Census Bureau's standard tables. The Elder Index measure, as tabulated by WOW and GI-UMB for ELM, applies to a specifically defined population of older adults and by using the ACS microdata we were able to adhere closely to that definition as we applied the measure to the population. The period represented by the 2006-2008 data also happens to be commensurate with that of the Elder Index as it was tabulated; in both instances dollar amounts are expressed in 2008 dollars, eliminating the need to adjust for inflation. The 3-year dataset contains a sufficient sample size to yield elder population estimates for many counties and remaining county clusters in Michigan, a critical consideration. The ACS data also contain information on the poverty status of households and the individuals within them, according to official federal government poverty guidelines, to provide a point of comparison with the income adequacy measure supplied by the Elder Index.

More details on the Census ACS data are available in Appendix B of this report. Appendix C provides greater detail on the methodology we employed to define the Elder Index-eligible population represented in the ACS, as well as a socioeconomic comparison of that group with the remainder of those age 65 and over excluded from Elder Index calculations. Appendix D discusses the issue of ACS data reliability, both for the standard Census tabulations and for custom tabulations based upon PUMS data.

---

<sup>7</sup> Ruggles, Steven, Alexander, J. Trent, Genadek, Katie, Goeken, Ronald, Schroeder, Matthew B., and Sobek, Matthew. (2010). *Integrated Public Use Microdata Series: Version 5.0* [Machine-readable database]. Minneapolis, MN: University of Minnesota. <http://usa.ipums.org>

## Results: Older Population Statewide

Senior citizens are one of the most economically vulnerable demographic groups in Michigan and in the United States at large. The vast majority of those age 65 and older are retired and no longer earning the wages or salary that come with employment. While some retired people have pensions or income from retirement investments, most rely heavily on their Social Security benefits to support themselves. For most Michigan residents age 65 and older, Social Security benefits are their primary source of income, and for about one-third of them, Social Security accounts for 90-100% of income.<sup>8</sup> Retired people whose income derives exclusively from Social Security at the average benefit level in Michigan—\$13,976 for singles and \$22,734 for couples—do not receive a high enough benefit payment to meet the rising costs of housing, food, transportation, out-of-pocket medical expenditures, and other basic necessities of living in our state, which the Elder Index pegs at \$16,718 for individuals and \$26,236 for couples in good health and in the lowest-cost housing category.<sup>9</sup> Our analysis shows that this condition of economic insecurity, in which about 37% of Michigan’s elders live, is widespread across every region in the state. Even in areas with relatively low levels of official senior poverty, no fewer than one in four older residents struggles to make ends meet. Table 1 below shows the primary results of the analysis, presenting raw numbers and rates of official poverty and income inadequacy among the age 65 and older population in Michigan as a whole and in 35 geographical regions of the state, according to both the US Census poverty threshold and WOW’s Elder Economic Security Standard Index. The table shows that nearly 70,000 older adults or about 9.7% of seniors in Michigan Elder Index-eligible households (see Appendix C) fall below the official poverty level. However, when the same population is assessed against the Elder Index, based on the actual cost of food, housing, transportation, health care and other basic expenses, we estimate that 265,607 seniors in the State of Michigan, or about 37% of typical older adults, do not have enough income to maintain their independence without assistance. More than one out of every three seniors in the state does not meet the minimum standard of financial security established by the Elder Index.

Across the state, rates of economic vulnerability for seniors vary considerably but never drop below one in four. Even in counties such as Monroe, Washtenaw, Clinton/Eaton and Livingston, which lie on the periphery of the metropolitan Detroit area and which have relatively low rates of poverty, the proportion of older adults who fall below the Elder Index level of economic security is at least one-quarter of the typical senior population. In most other counties it is one-third or higher. Counties that serve as the core of metropolitan areas including Wayne and predominantly rural regions including Ottawa County and Huron/Tuscola/Sanilac Counties have some of the highest percentages of vulnerable seniors. As Table 1 shows, Michigan’s largest city, Detroit, has a population in which about 60% of community-dwelling retired seniors cannot meet their living expenses based on their current income sources. Furthermore, in the suburban areas of Michigan that are considered to be affluent with financially secure residents, we also find large proportions of seniors with insufficient income to adequately meet their needs.

---

<sup>8</sup> Booza, Jason C., Jankowski, Thomas B., and Leach, Carrie A. (2010). An Income Profile of Older Adult Householders in Southeast Michigan (Seniors Count! Working Paper Series No. 1, March 26, 2010). Detroit, MI: Wayne State University Institute of Gerontology. <http://seniorscount.org/index.php/downloads/view.download/6/2.html>

<sup>9</sup> Gerontology Institute at the University of Massachusetts Boston, and Wider Opportunities for Women, op. cit., p. 3.

**Table 1. Individuals Age 65+ Living Below Census Poverty and Elder Index Thresholds by Michigan Geographic Area**

Geographic Area	Below Census Poverty Thresholds		Below Elder Index™ Thresholds	
	Total	Percent	Total	Percent
<i>State of Michigan</i>	69,595	9.7	265,607	37.0
Alcona, Alpena, Cheboygan, Crawford, Montmorency, Oscoda, Otsego, Presque Isle	2,011*	10.6*	7,796	41.0
Alger, Baraga, Marquette, Menominee	1,532*	15.0*	4,431	43.5
Allegan, Barry	987*	8.5*	4,471	38.7
Antrim, Charlevoix, Emmet, Kalkaska, Missaukee, Wexford	1,343*	8.8*	5,576	36.5
Arenac, Gladwin, Iosco, Ogemaw, Roscommon	1,327*	7.9*	6,300	37.6
Bay, Midland	1,253*	7.1*	5,911	33.5
Benzie, Grand Traverse, Leelanau, Manistee	1,132*	7.2*	5,389	34.1
Berrien	1,463*	11.8*	4,997	40.4
Branch, Cass, Saint Joseph	1,167*	9.7*	4,369	36.4
Calhoun	1,285*	12.6*	4,274	42.1
Chippewa, Luce, Mackinac, Delta, Schoolcraft	861*	8.0*	4,079	38.1
Clare, Gratiot, Isabella	799**	7.5*	3,773	35.5
Clinton, Eaton	753**	6.0**	3,641	28.8
Dickinson Gogebic, Iron, Keweenaw, Houghton, Ontonagon	1,624*	12.1*	5,831	43.3
Genesee, Shiawassee	2,460*	6.7*	10,918	29.7
Hillsdale, Lenawee	1,298*	10.8*	4,639	38.6
Huron, Tuscola, Sanilac	1,657*	11.8*	6,451	46.1
Ingham	1,854*	12.2*	4,830	31.9
Jackson	1,291*	11.2*	4,375	37.8
Kent	3,082*	8.6	12,797	35.9
Lake, Mason, Mecosta, Newaygo, Oceana, Osceola	1,878*	11.2*	6,967	41.6
Lapeer, St. Clair	1,831*	9.8*	6,224	33.2
Livingston	555**	5.6**	2,902*	29.1
Macomb	5,263	8.2	23,546	36.8
Monroe	443**	4.3**	2,684*	26.0
Montcalm, Ionia	846*	10.0*	3,592	42.6
Muskegon	1,486*	11.4*	4,530	34.9
Oakland	6,914	9.2	26,617	35.3
Ottawa	883*	5.4*	7,194	44.3
Saginaw	1,454*	9.1*	5,688	35.5
Van Buren, Kalamazoo	2,658*	11.8*	8,483	37.8
Washtenaw	1,165*	7.1*	4,477	27.5
Wayne County	15,040	12.8	47,855	40.8
<i>Detroit City</i>	7,289	25.5	17,156	59.9
<i>Out-Wayne County</i>	7,751	8.7	30,699	34.6

Source: Demographic Data - 2006-2008 ACS PUMS data via IPUMS (see footnote 7). Elder Index data - Elder Law of Michigan (see footnote 1).  
 Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). Estimates include only persons 65 years of age and older who are not in the workforce and are living alone or living in a two-person married couple household where both persons are 65 years of age and older and not in the workforce.

Oakland, Macomb and out-Wayne Counties respectively have 35%, 37% and 35% of their senior residents living below the Elder Index thresholds. While these rates are lower than that in Detroit and many rural areas, and slightly lower than the state average, they are still quite large and clearly demonstrate that economic vulnerability among older adults is widespread even in the suburban metropolitan area.

Although the Elder Index takes into account the varying costs of different housing circumstances when thresholds are calculated, the proportion of older Michigianians living below the Elder Index still varies by those housing circumstances, as shown in Table 2. For example, older healthy singles and couples in Michigan who own a home but hold no mortgage can expect to pay about \$2,340 less per year for housing than those who rent, and about \$7,980 less per year than those who own and still owe on a mortgage.<sup>10</sup> The Elder Index accounts for those differences in housing costs, but owners without a mortgage will fall below the Elder Index at lower rates than the other two groups. Interestingly, owners with mortgages have the highest housing costs, but rank second in economic security. Those with moderate housing costs, renters, actually fall below the Elder Index to a much greater extent than the owner groups, at a rate of almost 64%.

**Table 2. Percentage of Michigan Individuals Age 65+ Living Below or Above Elder Index Thresholds, by Housing Status**

	Living Below Elder Index	Living at or Above Elder Index
Own, no mortgage	29.5%*	70.5%
Own, with mortgage	39.0%*	61.0%
Rent	63.6%	36.4%*

Source: Demographic Data - 2006-2008 ACS PUMS data via IPUMS (see footnote 7). Elder Index data - Elder Law of Michigan (see footnote 1).  
 Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). Estimates include only persons 65 years of age and older who are not in the workforce and are living alone or living in a two-person married couple household where both persons are 65 years of age and older and not in the workforce.

In order to understand why some older adults fall below the Elder Index and others are able to maintain their economic security, it is instructive to more closely examine their sources of income. The primary source of income for most seniors is Social Security. Social Security was meant to provide partial support but not to be the sole source of income in retirement. Still, as mentioned above, about one-third of Michigan seniors depend upon Social Security benefits for 90% or more of their income. As Table 3 shows, the people who rely almost exclusively on Social Security for support find themselves at much greater risk of economic insecurity. Less than 24% of people age 65 or older who get at least 10% of their income from other sources fall below the Elder Index income security line, whereas nearly 65% of those whose income derives at least 90% or more from Social Security find themselves to be economically insecure. In a like display of the value of income diversity in retirement, Table 4 illustrates the proportion of those below and above the Elder Index economic security threshold by whether or not they receive any income from a pension plan or retirement account. Those who receive any pension or retirement income at all, even just a small amount to supplement their Social Security benefits,

<sup>10</sup> Gerontology Institute at the University of Massachusetts Boston, and Wider Opportunities for Women, op. cit., p. 2.

are at much lower risk of economic insecurity. Only a little over 20% of those with pension or retirement income live below the Elder Index, but more than 53% of those with no such income struggle to make ends meet.

**Table 3. Percentage of Michigan Individuals Age 65+ Living Below or Above Elder Index Thresholds, by Income from Social Security**

	Living Below Elder Index	Living at or Above Elder Index
Less than 90% of income from Social Security	23.7%*	76.3%
90% or more of income from Social Security	64.9%	35.1%*

Source: Demographic Data - 2006-2008 ACS PUMS data via IPUMS (see footnote 7). Elder Index data - Elder Law of Michigan (see footnote 1).  
 Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). Estimates include only persons 65 years of age and older who are not in the workforce and are living alone or living in a two-person married couple household where both persons are 65 years of age and older and not in the workforce.

**Table 4. Percentage of Michigan Individuals Age 65+ Living Below or Above Elder Index Thresholds, by Income from Pensions or Retirement Plans**

	Living Below Elder Index	Living at or Above Elder Index
Any pension/retirement income	20.3%*	79.7%
No pension/retirement income	53.4%	46.6%

Source: Demographic Data - 2006-2008 ACS PUMS data via IPUMS (see footnote 7). Elder Index data - Elder Law of Michigan (see footnote 1).  
 Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). Estimates include only persons 65 years of age and older who are not in the workforce and are living alone or living in a two-person married couple household where both persons are 65 years of age and older and not in the workforce.

Similar results can be observed in Table 5 when comparing those who do and do not receive income from interest, dividends, and rents. Those who garner even a small amount of income from investments tend to be much more economically secure, with less than 19% falling below the Elder Index standard. Those who receive no income from investments, on the other hand, stand a 48.6% chance of facing economic insecurity. Tables 3, 4, and 5 lend support to the notion that having multiple sources of income to rely upon in retirement, as opposed to Social Security alone, provides a degree of financial protection against threats to economic security.

**Table 5. Percentage of Michigan Individuals Age 65+ Living Below or Above Elder Index Thresholds, by Income from Investments**

	Living Below Elder Index	Living at or Above Elder Index
Any investment income	18.7%*	81.3%
No investment income	48.6%	51.4%

Source: Demographic Data - 2006-2008 ACS PUMS data via IPUMS (see footnote 7). Elder Index data - Elder Law of Michigan (see footnote 1).  
 Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). Estimates include only persons 65 years of age and older who are not in the workforce and are living alone or living in a two-person married couple household where both persons are 65 years of age and older and not in the workforce.

The use of the Elder Index not only demonstrates the economic vulnerability of seniors in Michigan, but also demonstrates the shortcomings of the most commonly used measure of economic need, namely the federal poverty level. The official poverty rate of 9.7% for Michigan's seniors belies the true struggle faced by those age 65 and older based on their actual costs of living, and represents a dramatic understatement of income inadequacy. One of the major reasons for this gross understatement is the federal poverty levels are derived from a national composite of living expenses based primarily on food, not adjusted for changes in consumer behavior and rising standards of living over the past several decades, and not adjusted for regional differences in the cost of living. In contrast, the Elder Index overcomes all of these faults and offers a measure of basic economic security as opposed to financial deprivation. While the official poverty measure sharply underestimates the degree of need across the entire state and in every region's older adult population, it seems to perform the worst in the rural counties (e.g., Ottawa, Chippewa/Luce/Mackinac/Delta/Schoolcraft) and exurban counties (e.g., Monroe, Livingston, Clinton/Eaton).

Overall, senior citizens in the State of Michigan are economically vulnerable to a surprising degree, even with nearly universal Social Security coverage. The most widely used measure of vulnerability, the federal poverty level, grossly underestimates the economic challenges faced by seniors in making ends meet on a fixed income. Relying solely on measures like the poverty rate to allocate funding and resources is likely to result in the failure to meet the needs of a significant portion of Michigan seniors.

## **Results: Demographic Groups in Michigan**

When different demographic categories of older adults in Michigan are examined, a few noteworthy patterns become apparent. It is widely recognized, for multiple related reasons, that older women tend to be more economically vulnerable than older men, as we have pointed out in a previous analysis<sup>11</sup> and as our current analysis clearly confirms. As Table 6 shows, about 41% of older women live below the Elder Index threshold, compared to just over 30% of their male counterparts.

A major contributing factor to the economic vulnerability of senior women is the fact that they have longer life expectancies, are more likely to be widowed than men, and therefore are more likely to be single and living alone. As shown in Table 7, nearly half of people age 65 and older who live alone fall below the Elder Index, which is nearly double the proportion of those who are part of a married couple. Men living alone are substantially worse off than their married counterparts, but women living alone tend to be even more economically insecure, with 53% falling below the Elder Index threshold in Michigan.

---

<sup>11</sup> Jankowski, Thomas B., Booza, Jason C., and Leach, Carrie A. (2011). *Gender Disparities of Older Adults in Southeast Michigan (Seniors Count! Working Paper Series No. 2, January 27, 2011)*. Detroit, MI: Wayne State University Institute of Gerontology. <http://seniorscount.org/index.php/downloads/view.download/6/49.html>

**Table 6. Percentage of Michigan Individuals Age 65+ Living Below or Above Elder Index Thresholds, by Gender**

	Living Below Elder Index	Living at or Above Elder Index
Men	30.3%*	69.7%
Women	41.2%*	58.8%

Source: Demographic Data - 2006-2008 ACS PUMS data via IPUMS (see footnote 7). Elder Index data - Elder Law of Michigan (see footnote 1).  
 Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). Estimates include only persons 65 years of age and older who are not in the workforce and are living alone or living in a two-person married couple household where both persons are 65 years of age and older and not in the workforce.

**Table 7. Percentage of Michigan Individuals Age 65+ Living Below or Above Elder Index Thresholds, by Household Type**

	Living Below Elder Index	Living at or Above Elder Index
Part of married couple	26.3%*	73.7%
Living alone (all)	49.3%	50.7%
Men living alone	39.2%*	60.8%
Women living alone	53.0%	47.0%*

Source: Demographic Data - 2006-2008 ACS PUMS data via IPUMS (see footnote 7). Elder Index data - Elder Law of Michigan (see footnote 1).  
 Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). Estimates include only persons 65 years of age and older who are not in the workforce and are living alone or living in a two-person married couple household where both persons are 65 years of age and older and not in the workforce.

Since women have longer life expectancies on average than men, many older women outlive their spouses. And because women tend to live longer than men, the senior population tends to contain a progressively higher proportion of women as it advances in age. Also, as members of the retired population age, they are more likely to exhaust private retirement accounts and therefore to suffer a decline in income. While some struggle financially throughout their retirement, others age into a state of economic insecurity.

**Table 8. Percentage of Michigan Individuals Age 65+ Living Below or Above Elder Index Thresholds, by Age Group**

	Living Below Elder Index	Living at or Above Elder Index
Age 65 - 74	31.9%*	68.1%
Age 75 - 84	38.6%*	61.4%
Age 85 and older	47.2%	52.8%

Source: Demographic Data - 2006-2008 ACS PUMS data via IPUMS (see footnote 7). Elder Index data - Elder Law of Michigan (see footnote 1).  
 Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). Estimates include only persons 65 years of age and older who are not in the workforce and are living alone or living in a two-person married couple household where both persons are 65 years of age and older and not in the workforce.

Table 8 illustrates that when divided by age group, the proportion of Michigan seniors living below the Elder Index grows larger as the age of the group grows older. Over 47% of those age 85 and older fall below the minimum level of economic security, compared to about 32% of those age 65 to 74 and nearly 39% of those age 75 to 84.

Racial group disparities are also apparent in the economic security of Michigan’s older adult population. Michigan seniors who identify as Black are significantly more likely to report incomes below the Elder Index than their White counterparts, for a rate of nearly 55% compared to just over 35% as shown in Table 9.

**Table 9. Percentage of Michigan Individuals Age 65+ Living Below or Above Elder Index Thresholds, by Race**

	Living Below Elder Index	Living at or Above Elder Index
White	35.3%*	64.7%
Black	54.7%	45.3%*

Source: Demographic Data - 2006-2008 ACS PUMS data via IPUMS (see footnote 7). Elder Index data - Elder Law of Michigan (see footnote 1).  
 Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). Estimates include only persons 65 years of age and older who are not in the workforce and are living alone or living in a two-person married couple household where both persons are 65 years of age and older and not in the workforce.

## Conclusion

According to official figures, about 9.7% of Michigan’s population age 65 and over is made up of people living below the poverty line. The antiquated official method of measuring poverty in the US does not take into account that costs have risen disproportionately for housing, transportation, and health care since the food-based method was developed more than 40 years ago. In addition, the official poverty measure does not take into account differences in costs of living by geographic location.

When viewed in terms of economic security rather than deprivation using a much more rigorous, reasonable, and realistic measure such as the Elder Economic Security Standard™ Index, we find that elder economic insecurity is much more prevalent and much more widespread than the official US Census poverty figures or popular perception would suggest. Using the Elder Index we find that about 37% of Michigan’s community-dwelling retired seniors who either live alone or with a retired senior spouse, have income levels too low to meet their basic needs. The rate at which older adults fall below the Elder Index varies considerably across geographical areas—from a low of 26% in Monroe County to nearly 60% in the city of Detroit—but even at the low end of the range over one in four Michigan seniors faces a constant struggle to stay afloat financially. These estimates all rest on an assumption of universal good health and moderate health care costs among the older population; if those in poor health and their increased health care costs could be accounted for, levels of economic insecurity would be even higher.

Despite the fact that the Elder Index takes housing status into account, elder renters face economic insecurity at greater levels than elder homeowners, whether or not they hold a mortgage. Furthermore, those who rely on Social Security for 90% or more of their income, and those who do not have other sources of income such as pension plans, retirement accounts, or investments, face much more serious financial challenges than those who have a greater diversity of income sources.

When viewed by demographic group or living arrangements, striking but not unexpected patterns emerge. Women, on average, fall below the Elder Index more frequently than men. Those who live alone tend to face more economic challenges than those who are part of a married couple, and that is especially true of women. Older seniors are more likely to have inadequate incomes than younger seniors. Black seniors have more difficulty making ends meet than White seniors do.

Elder economic insecurity is widespread throughout Michigan and much of it is hidden from sight in otherwise affluent areas, a phenomenon we have termed invisible poverty. The older adult population in this state will increase over the coming decades, nearly doubling as a proportion of the whole population by 2030. At the same time newer generations of workers will retire without the same level of access to the defined benefit pensions of earlier generations, and federal budget issues threaten to exert downward pressure on social insurance benefits for elders such as Social Security and Medicare. Considering changes in the economy and the population, and possible changes in the policy environment, the number of Michigan seniors experiencing invisible poverty is likely to grow substantially over the next 20 years.

## Appendices

### Appendix A: *Seniors Count!* Project Summary

A lack of easily accessible data on the aging population prompted the development of the *Seniors Count!* project, a collaboration begun and led by the Institute of Gerontology (IOG) at Wayne State University in Detroit, Michigan, and Adult Well Being Services (AWBS), a local non-profit community agency that provides services supporting the health and independence of older adults. *Seniors Count!* project staff are conducting a collection, analysis, and interpretation of secondary demographic, economic, and social data on older adults in the 7-county Southeast Michigan region. The results will be used by planners, service providers, policymakers, and advocates in the aging network. *Seniors Count!* has been funded by the Kresge Foundation, the Community Foundation for Southeastern Michigan, and the American House Foundation. The *Seniors Count!* staff would like to thank Elder Law of Michigan, Wider Opportunities for Women, and the Gerontology Institute at the University of Massachusetts Boston for their cooperation and assistance in the preparation of this paper.

### Appendix B: The American Community Survey

The American Community Survey (ACS) is a relatively new survey employed by the US Census Bureau to supply data users with timely and reliable demographic, housing, social and economic data. Historically, the US Census Bureau, as part of the decennial census, has used both a “short form” survey to collect basic demographic and housing information on the entire population of the United States and a “long form” to collect detailed socioeconomic and housing information for a sample of the population. While the short form is still used to collect basic demographic information (e.g., age, gender, race), the ACS replaced the decennial census “long form,” which was discontinued beginning in 2010.

Even though the ACS will provide a continuous stream of data to users, it also brings with it fundamental changes in how data is collected and disseminated. Whereas the purpose of the decennial census is to provide counts of individuals for congressional apportionment as mandated by the US Constitution, the purpose of the ACS is to provide estimates of the social and economic characteristics of the US population. Despite collecting similar information, the wording of certain questions and the time of year that the surveys are administered differ between the decennial census and the ACS. Thus, caution needs to be exercised when comparing data between these sources. In addition, caution needs to be taken when comparing data between different ACS products because of differences in when the data was collected.

A hallmark feature of the ACS is the use of multi-year estimates to create population and housing estimates. Rather than being collected once every 10 years, the ACS collects data yearly based on a sample of nearly three million addresses nationally. This sample is smaller than the 18 million addresses used to create the 2000 census long form sample. As a result, the US Census Bureau combines population and housing data from multiple years in order to create reliable estimates for smaller geographic areas such as counties, cities and tracts. The ACS provides one, three and five-year population and housing estimates. One-year estimates are provided for geographies with populations of 65,000 or more. Three-year estimates are provided

for geographies with a population of 20,000 or more. Five-year estimates will be provided for all census geographies except census blocks. The full ACS is available in standard tabular form and Public Use Microdata Sample (PUMS) data, limited in geographical level to Public Use Microdata Areas (PUMAs), are available for conducting custom tabulations and analysis.

In addition to changes in survey design/wording and the use of multi-year estimates, ACS data estimates tend to be less reliable and consistent than those produced by the decennial census. Techniques can be used, however, to evaluate reliability. These are discussed in Appendix D.

More information on ACS survey design and data dissemination can be found on the US Census Bureau website (<http://www.census.gov/acs>).

### Appendix C: Detailed Methodology for Identification and Selection of Elder Index Population

Our first task was to define a study population within the ACS that matched the population covered by the Elder Economic Security Standard™ Index: Retired individuals 65 years of age or older who either live alone or live with a retired spouse age 65 or older in a community setting. Not included in this population, then, are seniors still in the workforce, those living in group quarters, those living with individuals other than spouses including children, grandchildren, un-married partners, and non-relative roommates, or those living with spouses under age 65 or spouses still in the workforce. This filtering resulted in a file containing weighted data on 718,483 individuals, representing about 56% of all Michigan seniors. The 44% of seniors excluded are comprised of an estimated 562,657 individuals. The reasons for exclusion and the number and percent of excluded individuals with that characteristic are listed in Table C1 below. The numbers and percentages add up to more than 100% of the excluded population because some persons exhibit more than one exclusion characteristic.

**Table C1. Exclusion Characteristics of Michigan 65+ Population Excluded from Elder Index Calculations**

	Number	Percent of Excluded
Live in household of three or more people	180,821	32.1%*
In workforce	157,372	28.0%*
Live in two person household with person other than spouse	105,048	18.7%*
Live in two person household with spouse under age 65	85,277	15.2%*
Live in two person household with spouse in workforce	60,963	10.8%**
Live in group quarters	58,029	10.3%**

Source: 2006-2008 ACS PUMS data via IPUMS (see footnote 7).

Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D).

Table C2 compares select demographic characteristics of those who were and were not included in the Elder Index population. In most cases, low reliabilities of these estimates prevent us from identifying significant differences between the groups.

**Table C2. Demographic Characteristics of Michigan 65+ Population Included and Excluded from Elder Index Calculations**

	Percent of Included	Percent of Excluded
Poverty rate	9.7%**	7.3%**
Food stamp recipient	4.2%**	9.0%**
Female	61.0%	51.9%*
White	91.3%	83.4%
Black	7.3%**	13.0%**
Age 75 or older	56.6%	34.6%*

Source: 2006-2008 ACS PUMS data via IPUMS (see footnote 7).

Note: Estimates classified as reliable are *not* denoted in the table, one asterisk (\*) denotes somewhat reliable data, two asterisks (\*\*) denotes unreliable data (see Appendix D). The excluded group in this table omits those living in institutional group quarters, for whom poverty status was not determined by the US Census Bureau.

Table C2 seems to suggest that those excluded from the Elder Index population are less likely to live in poverty but more likely to receive food stamps than those included in the Elder Index population. It suggests that they are less likely to be women, less likely to be White, more likely to be Black, and less likely to be age 75 or older. Considering the fact that most are still in the workforce or live in households with others in the workforce, it would not be surprising if their poverty rates were lower than those who live in households with no wage or salary income. Overall, however, the differences between the two groups in terms of socioeconomic status are not remarkable, and indeed the low reliability of many of these measures makes it impossible to determine whether differences in poverty and food stamp rates and proportion of African Americans in each group, for example, are real differences or differences merely due to sampling error.

Once our population of interest was defined and identified, our next step was to determine if their income was above or below the Elder Index thresholds. In order to do this, we needed to create a method linking the appropriate Elder Index thresholds with individuals in the population. Since the Elder Index is computed for geographic regions within the state, primarily counties, we needed to determine the county of residence of each individual. The problem is that PUMS data are not identified by county, but rather by Public Use Microdata Areas (PUMAs), which are population-based geographical areas that contain at least 100,000 individuals as defined by the US Census Bureau. This means that for counties with populations of more than 100,000 residents, they are subdivided into several PUMAs, and for counties with smaller populations, they are combined to form a single PUMA. In the State of Michigan we had both occurrences. As a result, we had to define common geographies to merge the Elder Index thresholds and PUMS files together. This was done with the assistance of Geographic Information System (GIS), which allowed us to examine the boundaries of PUMAs and counties. Using GIS methods, individuals living in a PUMA that is completely within a county were assigned the Elder Index values of that county. For individuals living in a PUMA that was comprised of several counties, the county Elder Index values for those counties were averaged and the values were assigned to the individuals. For individuals residing in the single Michigan PUMA that crossed county lines, the Elder Index values for the two counties were averaged and

assigned to those individuals. As a result of this process, the Elder Index populations reported out in this study are described at either the county level or by multiple-county clusters.

Once we were able to determine the appropriate geography to use for the Elder Index, we had to determine which of six different household categories to assign each individual within each geographic area. Within each of two main groups, seniors living alone and seniors living with a spouse, there are three separate thresholds for those renting, those who own their home with a mortgage, and those who own their home without a mortgage. Since the ACS lacks health data, we assumed good health for all individuals, which is the moderate cost assumption of the three Elder Index health categories. Using housing, household composition, and marital status data provided in the PUMS file, we were able to match households to the appropriate threshold to determine if household income was above or below the Elder Index .

After determining if seniors lived in households with incomes above or below the Elder Index threshold, we were able to compute the summary statistics found in this study. Due to methodological issues with the ACS the amount of geographic and demographic detail provided for this population is limited, both by PUMA boundaries and by sampling error (see Appendix D). At a minimum, we are able to provide estimates of the total number and percentage of seniors living above and below the Elder Index for each geographic level, most of which are acceptably reliable. At the state level, we are able to cross-tabulate Elder Index income categories by select demographic characteristics (e.g., gender, race) with some degree of reliability.

#### **Appendix D: Reliability of American Community Survey (ACS) Estimates**

All data that come from a sample have a certain degree of uncertainty or error involved when used to estimate population parameters. In a practical sense, this means that estimates may be different from actual values in the population or from values obtained from another sample of the same population. Sampling error is impossible to avoid, but it can be estimated and must be taken into consideration when analyzing estimates.

Several methods can be used to estimate sampling error in ACS data, depending upon the type of data used. When using ACS tabular data, for example, the margin of error (MOE) provided for each estimate can be used to gauge sampling error. Since MOEs are not easily interpretable, we employ the coefficient of variation (CV) as a measure of estimate reliability in this paper. The CV is an expression of the percentage of the standard error present in a sample (see Figure D1).

---

#### **Figure D1. Coefficient of Variation (CV) For ACS Tables**

---

$$SE = MOE/1.645$$

$$CV = (SE)/(X)*100$$

---

Where:

SE = Standard error

MOE = Margin of error for the ACS estimate

X = ACS estimate

---

The CV is a function of sample size relative to the population. A lower CV means a more reliable estimate, and data users can be more confident that the sample estimate is close to the population value.

The method of estimating sampling error in the ACS PUMS can be somewhat more complicated. In this paper we employ the design factor method, the least demanding method, as shown in Figure D2. The first formula is used to determine the CV for estimated counts and the second is used for estimated percentages.

---

**Figure D2. Coefficient of Variation (CV) For ACS PUMS**

---

Formula for estimated counts

$$SE = DF * \sqrt{\left(\frac{97}{3}\right) * X \left(1 - \frac{X}{N}\right)}$$

$$CV = (SE)/(X)*100$$


---

Formula for estimated for percentages

$$SE = DF * \sqrt{\left(\frac{97}{3B}\right) * P \left(100 - P\right)}$$

$$CV = (SE)/(X)*100$$


---

Where:

SE = Standard error

DF = Design factor

X = ACS count estimate

N = Size of population in the geographic area

B = Denominator of estimated percentage

P = ACS percentage estimate

---

In all instances in the tables for this paper, we employed a design factor of 1.5 as suggested by the Census Bureau for use in Michigan of income and poverty measures.<sup>12</sup>

To report reliabilities for both tabular and PUMS-derived estimates we employ the appropriate formulas above and a three-category reliability typology based on the CV in which estimates are classified as either reliable (CV<15), somewhat reliable (15<CV<30) or unreliable (CV>30).<sup>13</sup> Estimates classified as reliable are those in which the standard error of the estimate is less than 15% of the value of the estimate. Reliable estimates will not be denoted in the text or tables within the report. Estimates classified as somewhat reliable have a standard error of 15% to less than 30%, and will be denoted with a single asterisk (\*) within text and tables.

---

<sup>12</sup> US Census Bureau. (2009). 2006-2008 PUMS Accuracy of the Data (Revised December 30, 2009). Washington, DC: US Census Bureau, pp. 11-12, 67-68. Retrieved on June 10, 2011 from [http://www.census.gov/acs/www/Downloads/data\\_documentation/pums/Accuracy/2006\\_2008AccuracyPUMS.pdf](http://www.census.gov/acs/www/Downloads/data_documentation/pums/Accuracy/2006_2008AccuracyPUMS.pdf)

<sup>13</sup> Ashenfelter, K.T., Beck, J., and Murphy, E.D. (2009). Final Report for First-Round Usability Testing of Data-Reliability Indicator Prototypes. *Survey Methodology #2009-01 Study Series*. US Census Bureau Statistical Research Division.

Caution needs to be taken when reaching conclusions about these estimates or making comparisons with other estimates, between years or between population groups. Estimates deemed unreliable will be denoted with a double asterisk (\*\*) within tables. These estimates have standard errors of 30% or more of their value and we do not advise using these estimates at all.