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The National Elder Economic Security Standard[™] Index: Methodology Overview

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The National Elder Economic Security StandardTM Index

Methodology Overview

February 2017

CENTER FOR SOCIAL AND DEMOGRAPHIC RESEARCH ON AGING

GERONTOLOGY INSTITUTE

JOHN W. MCCORMACK GRADUATE SCHOOL OF POLICY AND
GLOBAL STUDIES

About the Authors

This report was prepared by the [Center for Social and Demographic Research on Aging](#), in consultation with colleagues at the [National Council on Aging](#). Individuals responsible for the report include Jan Mutchler, Yang Li, and Ping Xu.

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The National Elder Economic Security Standard™ Index: Methodology Overview

Introduction

The Elder Economic Security Standard™ Index (Elder Index) is a measure of the cost of living for older adults in today's economy. The Elder Index helps answer important questions about what it really takes to financially support independent living in later life. For example, what is an adequate income for older adult households to age in place? How does it vary according to life circumstances: whether they are living alone or with a spouse, renting or owning a home? How do older adults' living costs change as their health status changes?

The Elder Index illustrates how living costs vary geographically (specifically, by county and by state), and based on the characteristics of households. Costs are calculated based on household size (one person age 65 or older, two persons age 65 or older), housing tenure (owner with no mortgage, renter, owner with a mortgage), and health status (excellent, good, poor). The expenses included in the Elder Index cover basic needs of elder households, including shelter, medical care, food, and transportation; the costs included reflect average market costs and do not take into account any needs-based subsidies. Elder Index values are calculated for a total of 18 different scenarios, and for all 3,144 counties and county-equivalents in the United States.

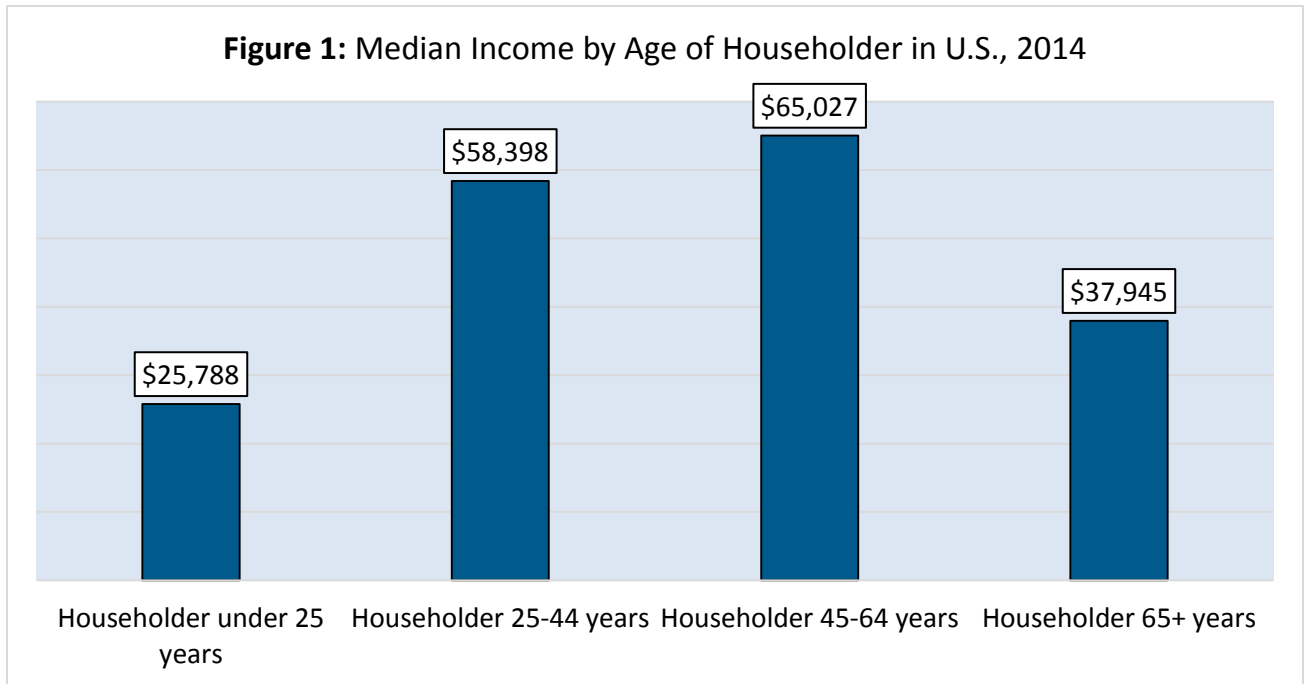
The purpose of this report is to describe the rationale and assumptions used in designing the Elder Index. Methodological features of the Elder Index are also described, and illustrated using selected components of the 2016 Elder Economic Security Standard™ Index calculations.

Background

Household income levels vary widely by age and life circumstance. Typically, as adults become fully engaged in the workforce, income levels rise until mid-life and then decline with advancing age. As indicated in **Figure 1**, median household income for householders 65 years and over¹ was \$37,945 in 2014. This means that half of all U.S. households headed by someone age 65 or older had income from all sources that totaled more than \$37,945, while the other half had

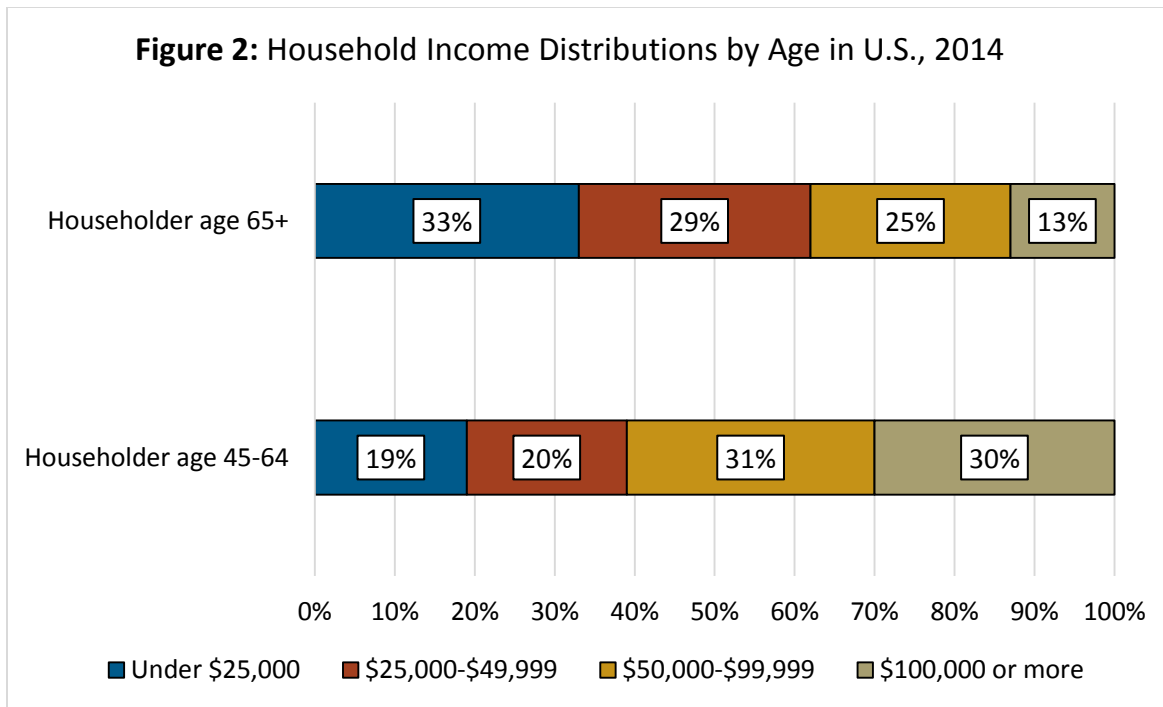
¹ A "householder" is the person in whose name the home is owned or rented. Household income includes the income of the householder plus all other individuals living in the same home.

incomes lower than that value. As shown in Figure 1, the median household income for older households is considerably lower than that for householders in their “peak earning years” (age 45-64).



Source: U.S. Census Bureau, American Community Survey 2010-2014, Table B19049

Age disparities in the income profile of households are further illustrated in **Figure 2**, which shows that in 2014, one-third of United States households headed by adults aged 65 or older had incomes under \$25,000 and over 60% had incomes under \$50,000. In contrast, only 19% of households headed by an adult age 45-64 reported income below \$20,000 and 39% had incomes below \$50,000. Households headed by those 65 and over have substantially lower income than younger households due, in part, to less employment income; as well, older households include fewer financially contributing members, on average.



Source: U.S. Census Bureau, American Community Survey 2010-2014, Table B19037

The Federal Poverty Line

Understanding the economic well-being of older adults requires selection of a benchmark against which resources may be evaluated. In the US, the most common benchmark chosen for illustrating economic disadvantage is the poverty line, a measure of income released every year by the Department of Health and Human Services.

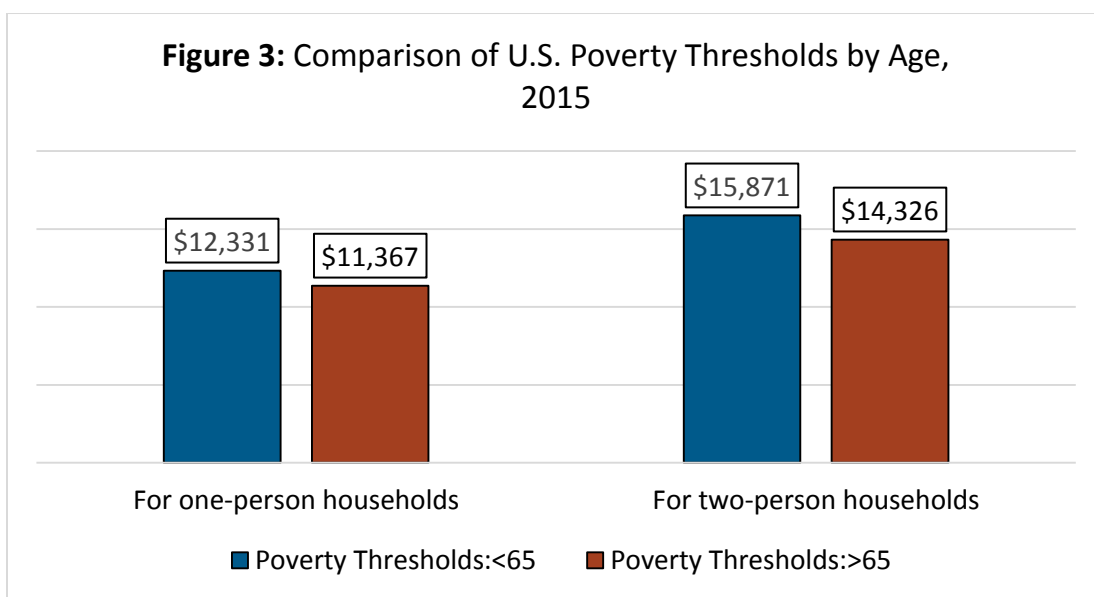
Poverty thresholds are drawn from the original version of the federal poverty measure.² The federal poverty line (FPL) was first calculated in the 1960's by taking the cost of food needed to meet the minimum nutritional needs of adults of different ages, and multiplying this by three. This figure was then used as the reference point for the amount of income needed to live at a basic level. This calculation was based on consumption surveys conducted in the late 1950s showing that U.S. families spent about one-third of their incomes on food. Since that time, the thresholds are updated each year by the change in the consumer price index (CPI).

Despite this historical calculation's reliance on an outdated connection to households' food costs alone, the poverty thresholds continue to be used as the basis to estimate the number of

² The federal poverty thresholds were developed by Mollie Orshansky of the Social Security Administration in 1963-64 and are updated each year by the U.S. Census Bureau. For more information on the federal poverty measures, see <https://aspe.hhs.gov/history-poverty-thresholds>

Americans living in poverty each year. In addition, the U.S. Department of Agriculture calculations assume that older adults have lower caloric requirements than younger adults. As a result, the official U.S. poverty thresholds are lower for adults 65 and older than for younger adults. The federal poverty thresholds do not consider age variability in any other costs – e.g., housing, health care, or transportation.

Figure 3 compares the US poverty thresholds by age for one- and two-person households. The poverty cutoff for elders living alone is \$964 per year less than the cutoff for younger adults, and the poverty cutoff for elder two-person households is \$1,545 less than the cutoff for younger couples.³



Source: U.S. Census Bureau, <https://www.census.gov/hhes/www/poverty/data/threshld/thresh15.html>

Based on the federal poverty threshold, an estimated 9% of elders in the United States were below the poverty level in 2014. An additional 11% had incomes just above the federal poverty line; as a result, one out of five US adults age 65 or older were estimated to have incomes at or below 150% of the poverty threshold.⁴ Older Americans living at, or near, the FPL experience economic disadvantage and have a high risk of experiencing financial shocks like a serious

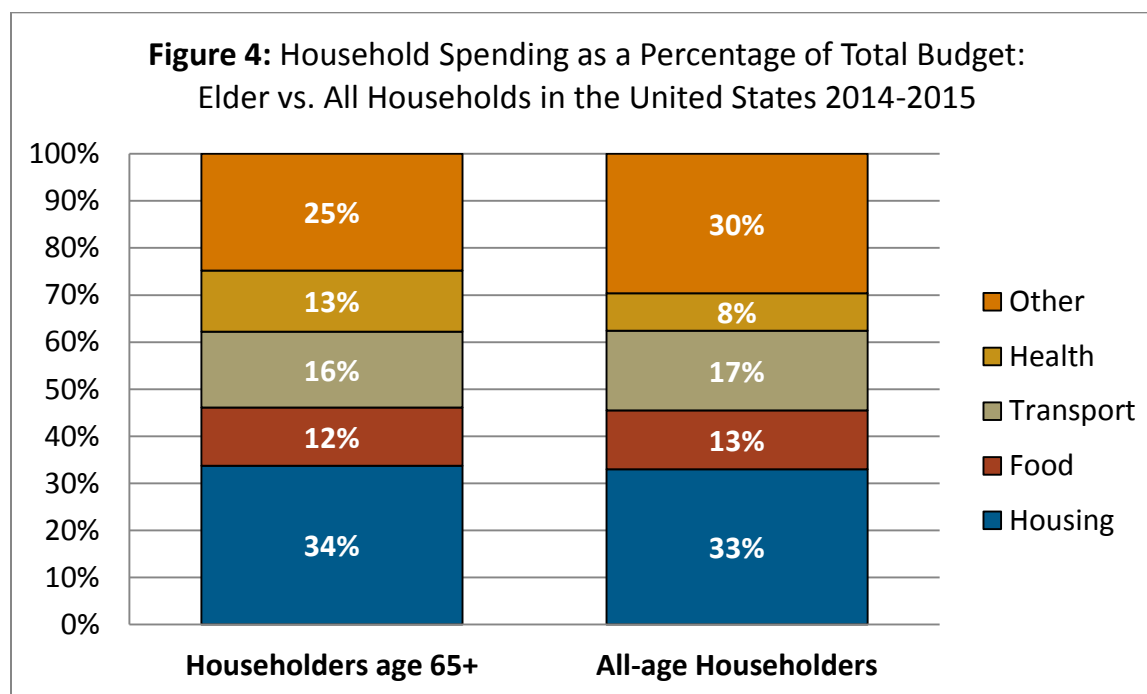
³ The poverty guidelines are a second version of the federal poverty measure. Issued each year in the Federal Register by the Department of Health and Human Services, they are a simplification of the poverty thresholds for administrative uses, such as determining eligibility for certain federal programs. The federal poverty guidelines for 2015 were \$11,770 for one-person households and \$15,930 for two-person households, and do not differ by age of householder. They are the same in 48 states and adjusted for living costs only in Alaska and Hawaii.

⁴ Calculated from Table B17024, 2010-2014 American Community Survey 5-year estimates. In 2014, the poverty threshold for an older individual living alone was \$11,354; it was \$14,326 for a two-senior household. Older individuals living alone were below 150% of the threshold if they had income of less than \$17,031 annually; two-person households were below 150% of the threshold if they had income of less than \$21,489 annually.

health event or a necessary residential move—shocks that could quickly erode their ability to meet necessary expenses even further.

The Big Picture: Elders' Spending Compared to All Households

As explained above, the FPL methodology assumes that households spend a fixed ratio of one-third of their incomes on food. In addition, it does not allow for different rates of inflation for different categories of living expenses. Moreover, it does not reflect regional or local variations in living costs.⁵ Data drawn from the federal Consumer Expenditure Survey (CEX) challenge these assumptions. **Figure 4** compares elder households' spending to expenses for households of all ages. For the US as a whole, the average household spends 13% of their budgets on food, rather than one-third as assumed in the FPL. Even one- and two-person households with incomes below the FPL spend on average only about 15% of their expenditures on food.⁶



Source: Bureau of Labor Statistics, Consumer Expenditure Survey 2014-2015.

⁵ For discussion of the limitations of the federal poverty measures and information on the Supplemental Poverty Measure developed in recent years by the U.S. Census Bureau, which addresses some of these shortcomings, see Renwick and Fox (2016).

⁶ Calculated based on data from the Consumer Expenditure Survey, 2014-2015; tables 3403 and 3423, available online at <https://www.bls.gov/cex/tables.htm#region>

Elder households spend about the same percentage of their budgets on housing, food and transportation as do all households, but considerably more on health care (13% for elder households, compared to 8% for all-age households). The rate of inflation for health care over the past 20 years has been substantially higher than for food or for housing. Between 1995 and 2015, housing expenses increased by 60% and food expenses by 67%. In contrast, the CPI for medical expenses more than doubled over that time period,⁷ illustrating the rapid growth in this cost category, which disproportionately impacts older adults.

Data from the Consumer Expenditure Survey also makes clear that both absolute and relative costs for essentials vary geographically. As shown in Figure 4, the largest single expense category for the typical household is housing. Yet CEX data suggest that average housing expenses for older households are considerably higher in some regions of the country than in others, with housing costs highest in the Northeastern states (at just under \$18,000 annually, representing 38% of all expenses) and lowest in the Southern states (at just over \$13,000 annually, representing 32% of all expenses).

The Elder Economic Security Standard™ Index offers a credible, reproducible measure of the cost of living independently for older adults. The Elder Index takes into account the market basket of goods and services that older households require in order to remain living independently in their own homes. As well, geographic variability in costs is incorporated throughout the calculation of the Elder Index, down to the level of the county. In the next section of this document, the strategies used for calculating the Elder Index are described in detail.

Calculating the Elder Economic Security Standard™ Index

The Elder Index was developed by researchers at the University of Massachusetts in collaboration with Wider Opportunities for Women, and with input and guidance from the Advisory Board for the Elder Economic Security Initiative. The Elder Index methodology is based on the characteristics and spending patterns of elder households, reflecting a realistic measure of *income adequacy* as opposed to the original intent of the federal poverty measure, which was to illustrate *income inadequacy*. Economic security requires that elders have sufficient income (from Social Security, pensions, retirement savings, and other income) to cover their necessary living costs. Using the Elder Index we can illustrate the basic costs that elders face,

⁷ Calculated based on CPI data from the Bureau of Labor Statistics, available online at <https://www.bls.gov/cpi/#tables>

and the interplay between living costs and elders' income adequacy. For more information about features of the Elder Index, see Mutchler, Shih, Lyu, Bruce & Gottlieb (2015).

Assumptions incorporated into the Elder Index

Several assumptions are built into the construction of the Elder Index. The Elder Index:

- measures basic living expenses for seniors living in the community (i.e., not in nursing homes or assisted living facilities);
- measures costs for elder households to live independently (vs. living in intergenerational households);
- measures living expenses for elders ages 65 and over to reflect the age at which Medicare begins;
- includes Medicare because elders qualify for and receive it based on age and without regard to income and assets, making Medicare nearly a universal program;⁸ and
- models costs for retired elders, who no longer have work-related expenses such as payroll taxes and commuting to work.

The Elder Index is tabulated separately for elders living alone in one-person households, and for two-elder households, including just two members, both of whom are age 65 or older. A large majority, but not all, of two-person elder households are married couples. Our calculations are meant to apply to any elder couple household regardless of whether or not the individuals are legally married; our approach simply assumes that the economies of scale experienced by married couples are shared in households including two older adults who are not married to one another.⁹

Living expenses

The Elder Index is calculated on a county-by-county basis. Average costs for housing, transportation, medical care, food, and miscellaneous expenses are retrieved or estimated with geographic specificity. The Elder Index represents the sum of these expense components, and yields an estimate of the cost of living for seniors living independently in the community. A

⁸ An individual is eligible for Medicare if he or she (or his/her spouse) worked for at least 10 years in Medicare-covered employment, is 65 years or older, and is a citizen or permanent resident of the United States (see <https://www.cms.gov/medicare/eligibility-and-enrollment/origmedicarepartabeligenrol/index.html>). Some individuals, such as recent immigrants, may not qualify for Social Security or Medicare.

⁹ Data from the American Community Survey suggest that 28% of community-residing individuals age 65+ live alone and 40% live with one other elder in a two-person household (96% of elders in two-person households are couples who are married or cohabiting). The remaining 32% live with 2 or more additional people and/or live with one or more persons under the age of 65.

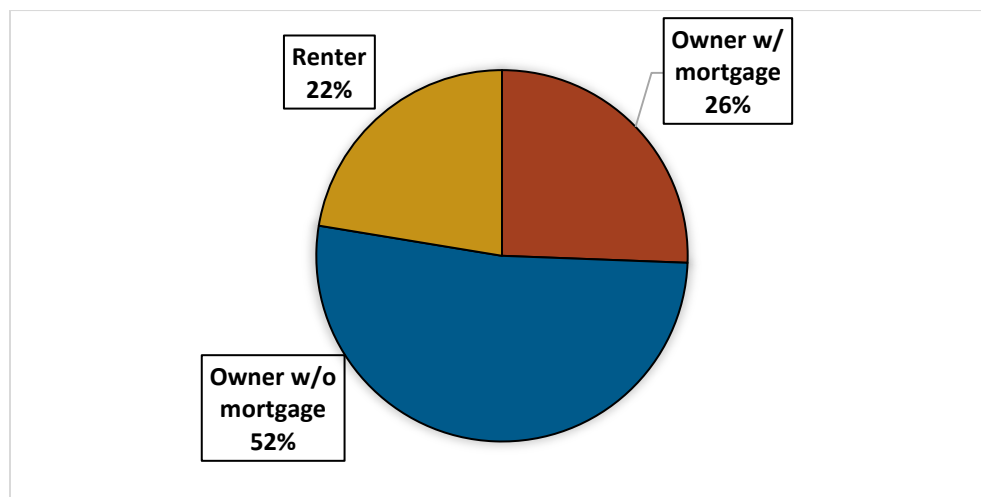
national average for the Elder Index is produced by generating a weighted average for each expense component and summing across components.¹⁰

The Elder Index uses data from public sources that are comparable, geographically specific, easily accessible, and widely accepted, such as from federal agencies (e.g., the US Census Bureau). In areas where existing public data sources are not readily retrievable, the Elder Index uses a consistent methodology to derive comparable measures for costs within and across states.

The basic cost components developed for the Elder Economic Security Standard™ Index include the following categories:¹¹

Housing costs: The Elder Index measures housing costs in the community, not in institutions such as skilled nursing facilities. The housing cost component includes three scenarios: renter, owner without a mortgage, and owner with a mortgage. In the United States, a majority of older householders are homeowners; most of them have mortgages that are paid off (**Figure 5**). Less than one quarter of older householders rent their homes. Housing costs are calculated as three-year averages (see **Appendix A**).

Figure 5: Householder Owner and Renter Status in the U.S., Age 65 and Over, 2010-2014



Source: Calculated by the Gerontology Institute using American Community Survey 2010-2014 5-year file, downloaded from the IPUMS website.

Note: Renter includes a small number of households who pay no cash rent.

¹⁰ Weighted averages were generated using the number of individuals aged 65 and over living in each county in 2015, based on the Census Bureau Population Estimates.

¹¹ For more information on data sources used in generating the Elder Index, see Appendix A.

Housing costs for **renters** are set at the fair market rent for a county, as calculated by the U.S. Department of Housing and Urban Development. The Elder Index for renters assumes that the elder individual or couple rents a one-bedroom apartment. The fair market rent value is defined as the 40th percentile rent for units currently on the market; it includes utilities but excludes telephone, cable, and internet service.¹²

For **homeowners**, housing costs include the sum of payments for mortgages and other debts on the property, real estate taxes, insurance, utilities, fuel, condominium fees and mobile home costs. Median homeowner costs for the Elder Index are calculated by the authors separately for elder owners with mortgages and those without mortgages. Owner costs are calculated at the level of the county or, when necessary, at the level of the PUMA¹³, which may include multiple counties.

Table 1: The Elder Economic Security Standard™ Index for the U.S, 2016

Monthly Expenses	Elder Living Alone			Two-person Elder Household		
	Owner, w/o Mortgage	Renter	Owner, w/ Mortgage	Owner, w/o Mortgage	Renter	Owner, w/ Mortgage
Housing	\$516	\$791	\$1,425	\$516	\$791	\$1,425
Food	\$256	\$256	\$256	\$470	\$470	\$470
Transportation	\$231	\$231	\$231	\$357	\$357	\$357
Healthcare (Good Health)	\$390	\$390	\$390	\$780	\$780	\$780
Miscellaneous	\$279	\$279	\$279	\$425	\$425	\$425
Total Monthly Expenses	\$1,672	\$1,947	\$2,581	\$2,548	\$2,823	\$3,457
Total Annual Expenses	\$20,064	\$23,364	\$30,972	\$30,576	\$33,876	\$41,484

Table 1 shows the 2016 Elder Index for the United States along with the component costs, for older adults living alone as well as for those living in a two-person elder household. All three housing scenarios are presented, including owners with and without a mortgage as well as renters. The figures presented in Table 1 assume that elders are in good health. The national average housing expenses for elders living in an owned home with no mortgage is \$516 per month, while renters can expect to pay \$791 per month for housing and owners with a mortgage pay \$1,425 per month on average for housing. Note that housing expenses are

¹² Some geographic areas are assigned the 50th percentile value as the FMR (U.S. Department of Housing & Urban Development, <http://www.huduser.org/portal/datasets/fmr.html>).

¹³ PUMAs (Public Use Microdata Areas) are Census Bureau-defined geographic units composed of single counties, a cluster of adjacent counties, or (in the case of large urban areas) segments of counties. We combine data from multiple PUMAs that lie within the same county to yield county-level homeownership costs. Where a PUMA includes multiple counties, housing costs used in the Elder Index are assumed to be the same for all counties within the same PUMA.

assumed to be identical for singles and for couples, representing substantial economies of scale for couple households.

Food costs: The U.S. Department of Agriculture (USDA) develops official Food Plans to measure the cost of a minimally adequate diet that meets nutritional standards for different age groups and genders, reflecting different caloric requirements needed to meet those minimum standards. The official Food Plan budgets are scaled by family size to reflect economies of scale. The Elder Index bases the food expense values on the “Low Cost” food plan, and budgets \$256 per month for an older individual living alone and \$470 per month for an older couple living on their own. The economy of scale assumption results in the food budget for couples being less than twice the amount set for singles. In the Elder Index, we assume that required food costs are the same in every county; the USDA budgets do not incorporate geographic adjustments in cost of food.

Transportation: Transportation expenses are estimated based on the assumption of private automobile usage. The typical annual miles driven by singles and by couples are estimated based on the 2009 National Household Travel Survey, using a statistical estimation procedure. Mileage estimates are stratified by geographic region, and by population size of the county. Transportation expenses are calculated by multiplying the estimated mileage driven by singles and by couples by the IRS mileage reimbursement cost for 2015 and inflated to 2016 dollars.¹⁴ For the 2016 Elder Index national average, transportation expenses are estimated at \$231 per month for singles, and \$357 for couples. Although couples drive more than singles and incur higher transportation expenses as a result, economies of scale in transportation are realized for couples so estimated costs do not double.

Medical Care: In estimating costs of medical care, older individuals and couples are assumed to participate in Medicare Parts A & B; seniors are also assumed to have purchased supplemental coverage that includes prescription drug coverage. Estimated medical expenses therefore include the premium cost for Medicare Part B, for supplemental medical coverage (either a Medicare Advantage or a Medigap plan), and for prescription drug coverage, plus additional out-of-pocket health care expenses. Because out-of-pocket expenses are heavily determined by overall level of health, medical care expenses are estimated at three levels of health: excellent, good, and poor.

The availability and pricing of Medicare Advantage and Medigap coverage vary in different regions and counties across the United States. In estimating medical care expenses, data from CMS were used to determine the penetration rate of Medicare Advantage in each county. If fewer than 20% of Medicare enrollees participated in a Medicare Advantage plan, costs were

¹⁴ For 2015, the IRS mileage reimbursement rate was \$0.58/mile.

based assuming coverage by both a Medigap plan (Policy C) and prescription drug plan (Part D). Estimated expenses include the cost of premiums plus additional out-of-pocket expenses. For all other counties, data from the [Medicare Plan Finder](#) website were used, with costs retrieved for the most commonly used Medicare Advantage plans in each county. These costs—which include premiums plus additional out-of-pocket expenses—were averaged across the three most frequently used plans in each county. Estimated expenses are retrieved for three levels of health: excellent, good, and poor.

For the 2016 Elder Index national average, medical expenses are estimated at \$390 for singles and \$780 for couples assuming elders are in good health. Unlike other categories of expense, there are no economies of scale in health coverage: the estimated cost of securing medical care for couples is twice that for singles. Relative to the cost assuming good health, the estimated out-of-pocket health care expenses are somewhat lower assuming excellent health, but considerably higher if a person is in poor health. The estimated nationwide average monthly and annual medical expenses for all three levels of health are presented in **Table 2**.

Table 2: Estimated Out-of-Pocket Health Care Expenses, for Three Levels of Health (2016 Nationwide Average)

Per Person:	Excellent Health	Good Health	Poor Health
Cost Per Month	\$317	\$390	\$562
Cost Per Year	\$3,804	\$4,680	\$6,744

Source: Calculates by the Gerontology Institute based on data from the Medicare Options Compare Website.

See: <https://www.medicare.gov/find-a-plan/results/planresults/summary-of-results.aspx?Language=English#;return%20false;>

Miscellaneous: The miscellaneous expense category includes all other essentials, such as clothing, household items, personal hygiene items, and telephone service. It does not allow for recreation, entertainment, gifts, or savings. Miscellaneous expenses are estimated as 20% of all other costs, based on the remaining costs for elders living in an owned home with no mortgage. This same expenditure is applied to the other housing scenarios, separately for singles and couples.

Local *property taxes* are included in the housing cost component for homeowners. A significant portion of Social Security income is exempt from federal *income tax* when elders' combined incomes are under certain limits. Income tax treatment and rates vary by source of income; elders typically rely on a combination of Social Security, pension, and savings. Because most of

the Elder Index household basic budgets are near the no-tax limits¹⁵, and because tax rates vary by income source, calculations do not include income taxes in the basic model.

Elders' living costs in each of the above components are summed to determine household budgets for each of the respective scenarios for elder households. This yields the Elder Economic Security Standard™ Index, the after-tax income required to cover elders' living expenses based on where they live and the characteristics of their households.

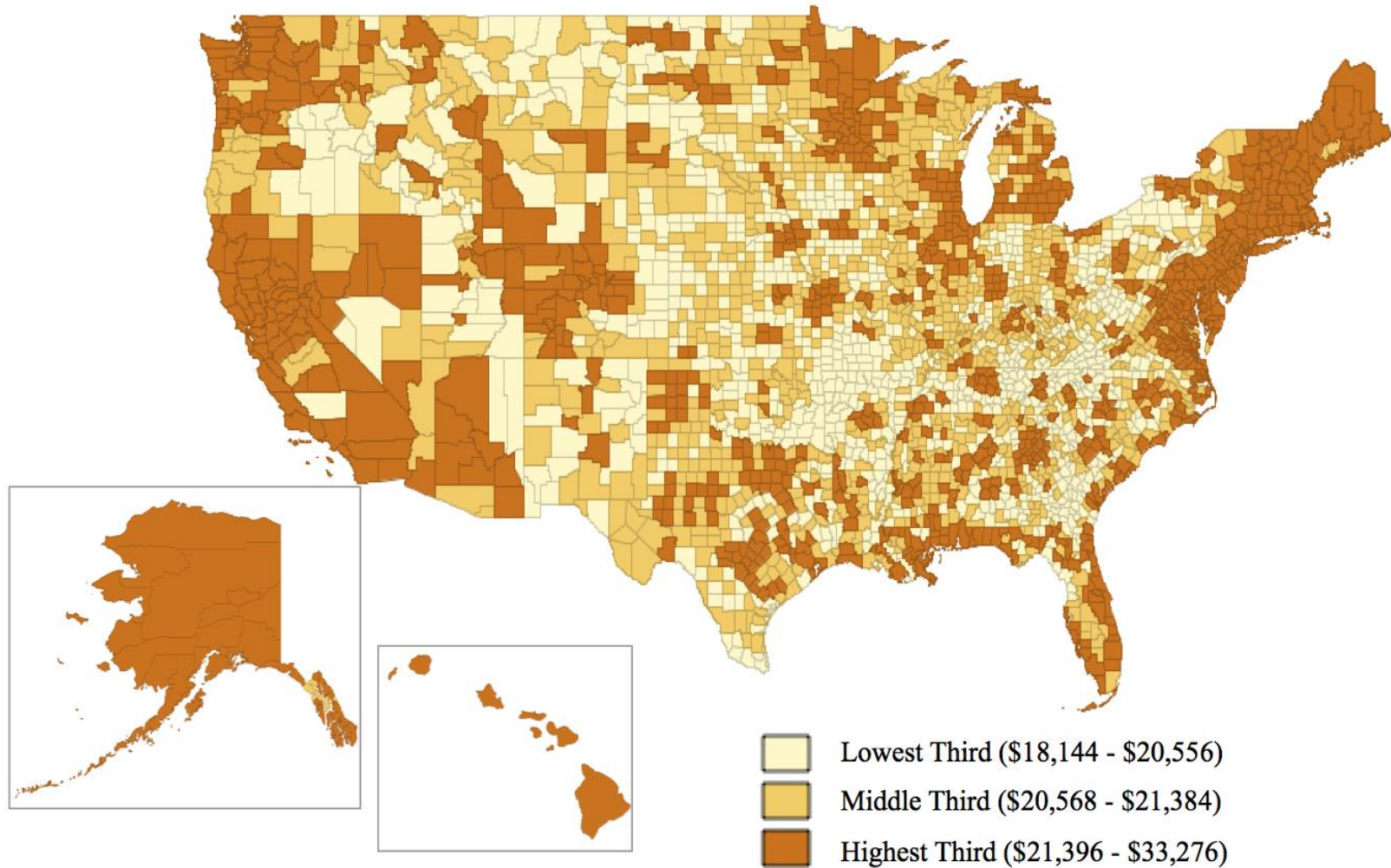
The Elder Index for the United States, 2016

As shown in **Table 1**, the 2016 Elder Index ranges from \$20,064 for seniors in good health living alone in an owned home with no mortgage, to \$41,484 for senior couples in good health, living independently in an owned home with a mortgage. Costs are higher for couples than for singles, although economies of scale are evident in most expense categories. In the nationwide average calculations, costs are highest for owners with a mortgage and lowest for owners without a mortgage, while renter expenses fall between these two.

Elder Index values in 2016 vary considerably across the United States. Across all counties in the US, the lowest value of the Elder Index, assuming an older adult in good health living alone in a rented apartment, is \$18,144, in Iberville Parish, Louisiana. The highest value of the Elder Index for a similar adult is \$33,276, in Marin County, California. As shown in **Figure 6**, the majority of counties in the Northeastern US, California, Alaska and Hawaii have Index values above \$21,396, representing the highest third in the Elder Index for renters and reflecting the high cost of living in these areas. In contrast, a large number of counties in the Great Plains have index values below \$20,556, representing the lowest third in the Elder Index for renters. **Figure 7** illustrates values of the Elder Index for older adults living in two-person rented homes; the general geographic pattern of high and low-cost areas for couples is similar to that observed for older adults living alone.

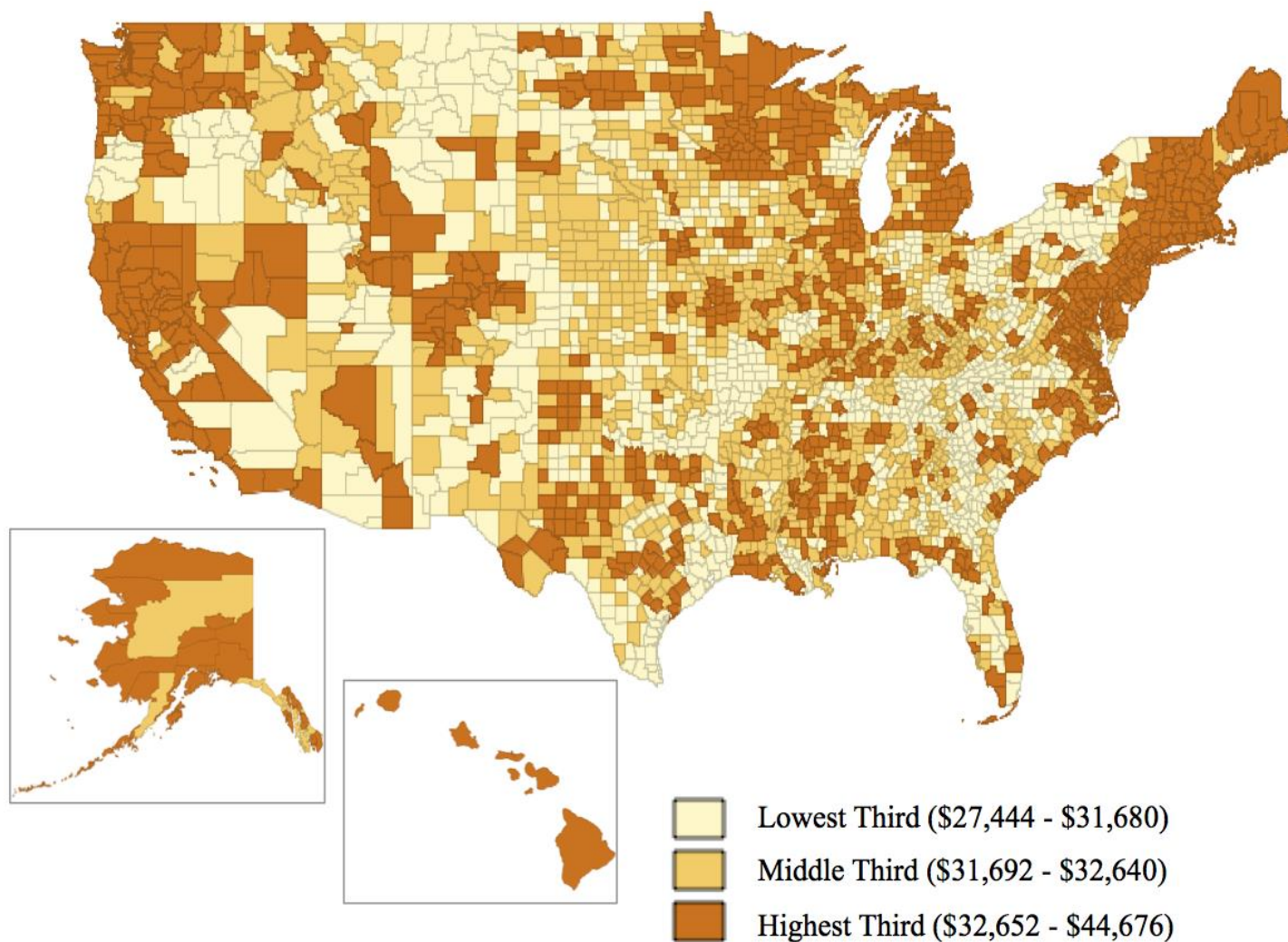
¹⁵ For a single elder, Social Security benefits will not be taxable unless modified adjusted gross income, plus one-half of Social Security benefits, exceeds \$25,000. For a couple, the no-tax limit is \$32,000 (<https://www.irs.gov/uac/newsroom/are-your-social-security-benefits-taxable>)

Figure 6: United States Elder Index Values by County, 2016 (Single Renters)



Source: Center for Social and Demographic Research on Aging. (2016). Living below the line: economic insecurity and older Americans insecurity in the States 2016. Gerontology Institute, University of Massachusetts Boston. https://www.umb.edu/demographyofaging/elder_economic_security

Figure 7: United States Elder Index Values by County, 2016 (Couple Renters)



Source: Center for Social and Demographic Research on Aging. (2016). Living below the line: economic insecurity and older Americans insecurity in the States 2016. Gerontology Institute, University of Massachusetts Boston. https://www.umb.edu/demographyofaging/elder_economic_security

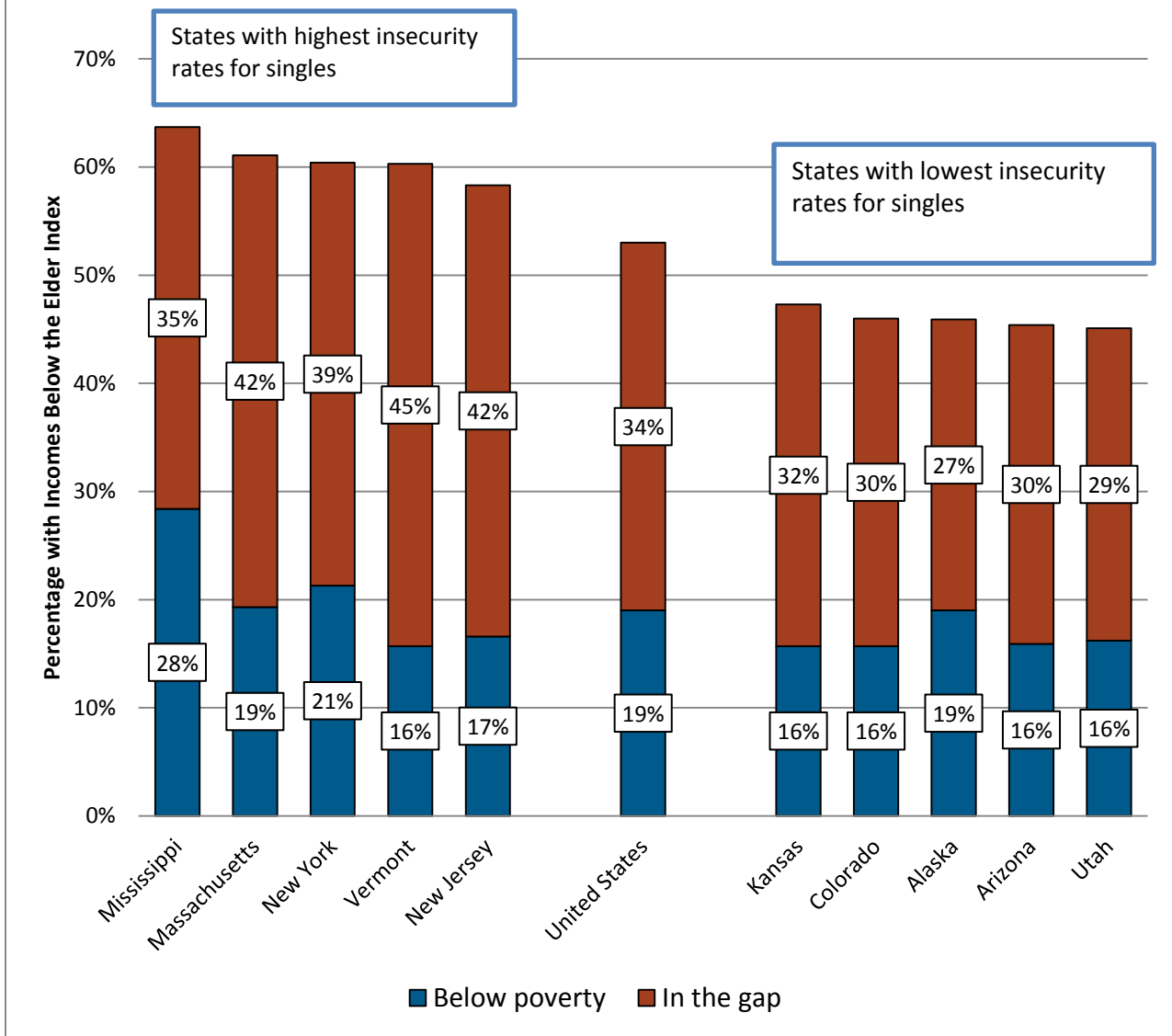
Living Below the Line: Many older adults have incomes lower than the Elder Index

Rates of economic insecurity for elders are calculated in each state, defined as the share of older adults with incomes that fall below the Elder Index value for their state. These analyses, comparing incomes that older adults actually have to values of the Elder Index, suggest that a far greater share of older adults struggle with economic insecurity than is commonly realized. Comparing the Elder Index for renters to the incomes reported for older adults suggests that more than half of older adults who live alone (53%) have incomes that are insufficient to meet their living expenses (see **Figure 8**). On average throughout the United States, the share of older adults living alone with incomes below the Federal Poverty Guidelines (FPL) is 19%. However, the percentages of elders who live “*in the gap*” with incomes falling between the FPL and the Elder Index is substantially higher, at 34% for singles in the US. Individuals “*in the gap*” have incomes too high to qualify for many means-tested public benefits programs, yet too low to achieve intermediate- or long-term economic stability.

Figure 8 illustrates the variability across states in the extent to which older adults living alone struggle with economic insecurity. The share of older adults who live alone with incomes below the Elder Index is highest in Mississippi, with 28% of singles having incomes below the FPL and another 35% having incomes that fall between the FPL and the Elder Index. Although *living costs* are not as high in Mississippi as in many other states, a large share of older Mississippi residents have *very low incomes*, resulting in high rates of economic insecurity. Massachusetts, New York, Vermont and New Jersey rank just behind Mississippi in rates of economic insecurity, although poverty rates are not nearly as high. Recall that economic insecurity results when the income that older adults have does not meet the cost of necessary expenses in the location in which they live, as summarized by the Elder Index. In Massachusetts, New York, Vermont and New Jersey, the *high cost of living* largely accounts for their ranking in economic insecurity rather than very low income values. This comparison highlights the importance of considering not just amount of income in capturing economic insecurity, but rather, *income relative to cost of living*.

The lowest rates of economic insecurity are estimated for seniors in Kansas, Colorado, Alaska, Arizona and Utah, yet even in these states, a minimum of 45% of older adults who live alone do not have incomes sufficient to cover necessary expenses. Moreover, in every state, the share of older adults with incomes “*in the gap*” between the poverty line and the Elder Index is larger than the share living in poverty; in some states the share living in the gap is nearly three times higher (see Vermont, for example).

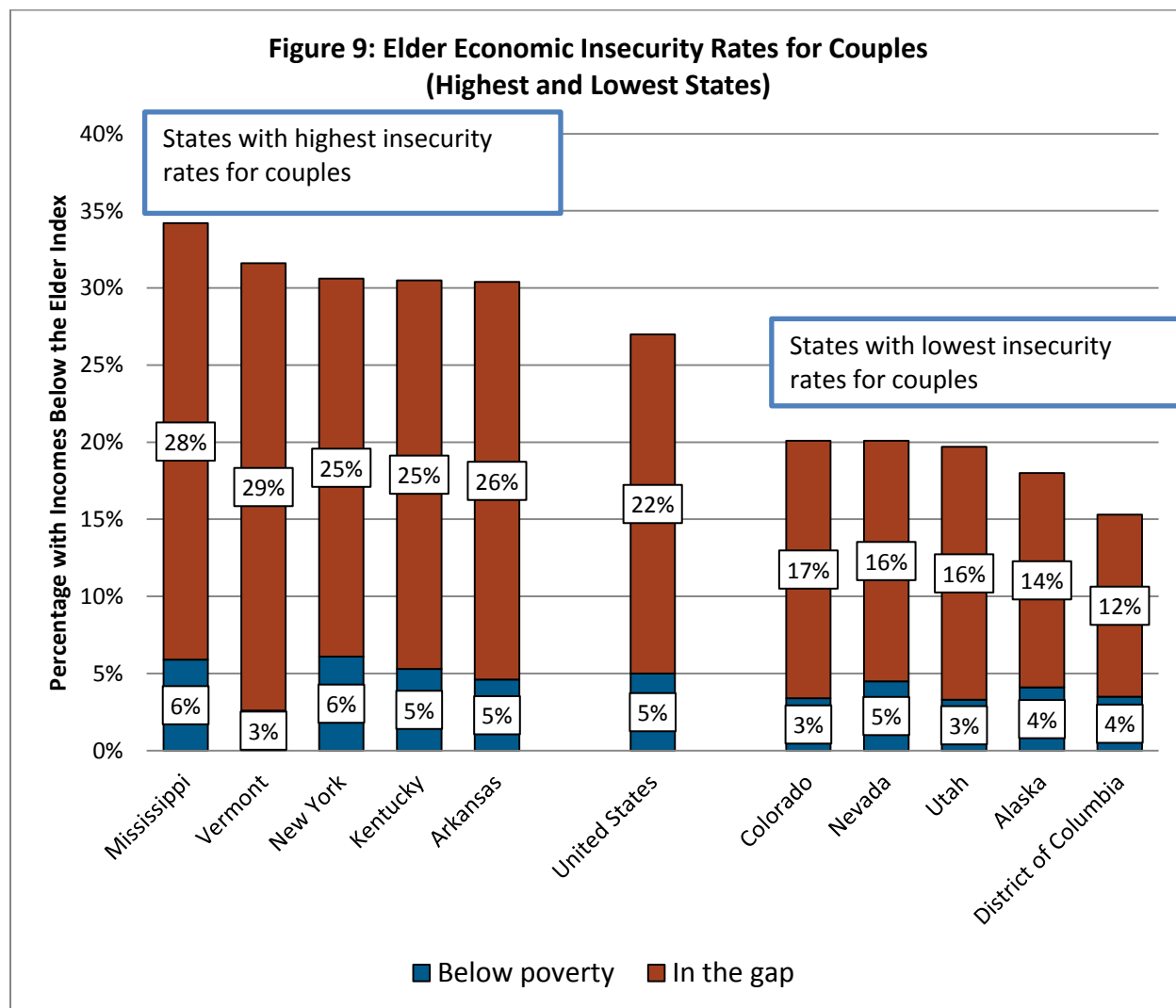
**Figure 8: Elder Economic Insecurity Rates for Singles
(Highest and Lowest States)**



Source: 2016 Elder Index Values; 2016 DHHS Federal Poverty Guidelines.

Figure 9 illustrates the same measure as in Figure 8, but for older adults living in two-person households. Both poverty rates and economic insecurity rates are substantially lower for couples than for singles throughout the United States, due in part to economies of scale in costs of living, but also because two-person households typically have higher income levels and more sources of income. For older couples, the share with incomes “in the gap” is considerably higher than the share living in poverty. For example, although just 3% of Vermont couples over age 65 live below poverty, an additional 29% have incomes above the FPL but below what is

required for economic security. These figures demonstrate that while a large majority of couples avoid poverty, many are unable to afford daily expenses of living as reflected by the Elder Index.



Source: 2016 Elder Index Values; 2016 DHHS Federal Poverty Guidelines.

Conclusion

The Elder Economic Security Standard™ Index provides a tool for estimating the expenses a senior individual or elder couple confronts in providing for basic needs. Elder Index values calculated for every county in the United States, and stratified by household size, housing circumstance, and level of health, illustrate the high cost of living for seniors throughout the country. Comparing the income of older singles and couples to the Elder Index makes clear that

throughout the US, a large share of older adults lack the income needed to cover basic necessities. Elders who live alone, and those in high-cost areas of the country, face especially high risk of economic insecurity.

To download county-level Elder Index values for the entire U.S., see the website hosted by the National Council on Aging, at www.basiceconomicsecurity.org

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Appendix A: Data Sources

Category	Source	Assumptions
Housing*	<ul style="list-style-type: none"> • Renter Cost: US Department of Housing and Urban Development. Fair Market Rents. Fiscal Year 2014-2016. http://www.huduser.org/datasets/fmr.html • Owner Cost: US Census Bureau: American Community Survey Public Use Microdata Sample (PUMS) 2011-2013 three-year file. http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_pums_csv_2011_2013&prodType=document 	<p>Fair Market Rents (FMRs) are for 1-bedroom units by HUD statistical area (county or county group).</p> <p>Median selected monthly owner costs (SMOC) for owners age 65+ with and without a mortgage. SMOC includes property taxes, insurance, utilities, condo fees, and mortgage payment (if any).</p>
Food*	<ul style="list-style-type: none"> • Low-Cost Food Plan: US Department of Agriculture, Center for Nutrition Policy and Promotion (2013-2015). http://www.cnpp.usda.gov/USDAFoodPlansCostoffood.htm 	<p>Low Cost Food Plan costs for older men and women are averaged to determine food costs for single elders.</p>
Health Care*	<ul style="list-style-type: none"> • US Department of Health & Human Services. Medicare Options Compare Tool (2015). https://www.medicare.gov/find-a-plan/questions/home.aspx • US Department of Health & Human Services. Medicare Advantage/Part D Contract and Enrollment Data. http://www.cms.hhs.gov/MCRAAdvPartDEnrolData/MASCPen/list.asp#TopOfPage 	<p>Average costs are calculated assuming Medicare Advantage with Prescription coverage, or Medigap Supplement and Medicare Part D coverage. Medicare Advantage is assumed in counties in which at least 20% of Medicare enrollees participate in Medicare Advantage. Medigap coverage is assumed in all other counties.</p>
Transportation*	<ul style="list-style-type: none"> • Private Automobile Cost: US Department of Transportation, National Household Travel Survey for 2009 (NHTS). http://nhts.ornl.gov/ • Per Mile Cost: Internal Revenue Service (2013-2015). https://www.irs.gov/uac/newsroom/2016-standard-mileage-rates-for-business-medical-and-moving-announced?_ga=1.250352134.1219780965.1474386451 	<p>Estimated annual miles driven by retired singles and couples are estimated from the NHTS for 2009. Costs are based on the estimated miles driven, multiplied by the IRS standard mileage reimbursement rate for operating and owner costs.</p>
Miscellaneous	<ul style="list-style-type: none"> • Miscellaneous expenses are designed as an allowance for other essentials. This includes apparels, personal and household items, and basic services such as telephone. • Miscellaneous expenses are estimated at 20% of the combined cost of other categories (housing, food, health care and transportation). 	<p>The Elder Index calculates miscellaneous expenses for owners without a mortgage and applies that amount to each of the housing types.</p>

*Note that owner cost, food cost, healthcare cost, and transportation cost are all adjusted to 2016 dollars using the Consumer Price Index.

About the [Center for Social and Demographic Research on Aging](#)

The Center for Social and Demographic Research on Aging conducts demographic and applied research within UMass Boston's Gerontology Institute. The Center aims to serve the research and evaluation needs of municipalities, states, and organizations that serve older adults in the community. The Center also provides training for students in the Gerontology PhD Program at UMass Boston. Areas of special interest include economic security in later life; well-being and quality of life; community supports for older adults; evaluating programs designed for older adults; and demography and diversity of the aging population.

About the [Gerontology Institute](#) at University of Massachusetts Boston

Created by the Massachusetts Legislature in 1984, the Gerontology Institute conducts research and policy analysis in the field of aging, and offers lifelong learning and pension protection services to older adults. The Institute has four priority areas—(1) productive aging; (2) economic security; (3) social and demographic research on aging; and (4) long-term services and supports—with special emphasis on low-income and minority elders.

Located within the McCormack Graduate School of Policy and Global Studies at UMass Boston, the Institute furthers the university's [educational programs in Gerontology](#), including a Ph.D. program in Gerontology, a Master's program in the Management of Aging Services, and undergraduate programs in gerontology.

About the [John W McCormack Graduate School of Policy and Global Studies](#)

We are grounded in the notion that knowledge, research, and inquiry can drive better public policies to improve people's lives. At the McCormack School, our faculty, students, alumni, and community partners work to remedy existing social, political, and economic inequities in local and global communities.

Our distinctive strengths and features:

- * Pioneering, interdisciplinary education and values-driven research
- * An emphasis on social justice, effective and innovative governance, and policies that are economically, environmentally, and socially sustainable
- * Small classes taught by passionate, award-winning faculty committed to student success
- * An affordable, high-quality alternative to private universities.