OHIO LONG TERM CARE RESEARCH PROJECT

SCRIPPS GERONTOLOGY CENTER

PROFILE & PROJECTIONS OF THE 60+ POPULATION

HANCOCK COUNTY OHIO

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All county reports as well as a state report are downloadable at:
http://www.scripps.muohio.edu/scripps/research/countyreports.html

Fast Facts

About Hancock County and its 60+ Population

WWW.SCRIPPS.MUOHIO.EDU

- Over 17% of Hancock County's population is age 60+ (or 12,277 individuals)
- By 2020, there will be 18,400 individuals age 60+ in Hancock County (This is a 50% increase in the 60+ population)
- Nearly 3 in 4 individuals age 85+ are female
- Disability increases with age: Only 3% of 60-69 year olds have a severe disability, compared to 45% of those 90+
- Over one third of individuals age 60+ have at least one disability
- By 2020, almost 1,500 individuals age 60+ with a severe disability will reside in Hancock County
- Over 11% of the age 60+ population live in poverty
- Less than 3% of individuals age 60+ are racial or ethnic minorities
- Of men age 60+, 78% are married, compared to only 49% of women
- More than 7 in 10 individuals age 60+ have 12 or fewer years of education
- Of women age 60+, 41% live alone, compared to 18% of men

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Preface

During the next 20 years, the national population, as well as the population in Ohio, will grow older. In anticipation of this impending change, we have created this series of reports to help Ohio area agencies on aging, service providers, and other organizations that are not directly involved in aging services to better plan for the needs of the aging population.

The purpose of these reports is to present the unique profile of the **older population (60+)** in each of Ohio's 88 counties and to project the number of older people and the prevalence of disability among this population. Trends and projections are provided for ages 60 and above, because this is the eligibility age for some state and local home care programs. Specific topics explored include disability, poverty, marital status, living alone, and educational attainment among the older population. Throughout the reports, trends are compared according to gender and age group for each county. To provide a better understanding of the county's standing in relation to the rest of the state, population characteristics from each county are compared with corresponding measures of Ohio's older population. In order to provide insight into the direction the county is moving some population trends are also presented.

In preparing this report, we used data from the Census short form, which is available for all residents within each county, and the Census long-form, which is available for a representative sample of county residents. The actual Census count from the Census short-form and the weighted sample counts from the long-form may be slightly different. To preserve privacy and confidentially of the respondents, the census long-form data is available for geographic units with a minimum population of 100,000. In some cases a large county encompasses several such geographic units while in other cases a few neighboring counties are bundled together to form a geographic unit with 100,000 population. In large counties, the data for education, poverty threshold, living arrangement, marital status and disability rates are for the county alone, while smaller neighboring counties will show identical data, for the above indicators of need for assistance, for the bundled counties. **The data in this report combine Hancock, Seneca, and Wyandot Counties.**

Sources used to create all tables and figures are specified.

PROFILE & PROJECTIONS OF THE 60+ POPULATION:

HANCOCK COUNTY, OHIO

Background

This report illustrates the demographic changes that occurred in Hancock County between 1990 and 2000, and presents projections of the older population including the number of older adults with disabilities. The report also covers other population characteristics that have been shown to be associated with the need for long-term care services among older adults, such as the prevalence of poverty, living alone, lack of education, and being unmarried. County-level data are compared to data on Ohio as a whole in order to show differences or similarities in population characteristics. By examining both demographic patterns and informed projections, counties will be better prepared to address the needs of their aging and disabled populations.

County Overview

Hancock County is located in the northwest portion of Ohio, encompassing the city of Findlay. In 2000, the county population was 71,295. Hancock County is somewhat rural, with 32.0% of the population living in rural areas in 2000, compared to 40.6% in 1990. This represents a decrease of 16.4% in rural population over the ten-year period. With 12,277 individuals age 60 and over, Hancock County has the 37th largest 60+ population in the state, yet it ranks 53rd in proportion of total population that is 60+ (out of 88 counties in Ohio). As shown in the Summary Table, the 60+ population represents 17.2% of the total population in Hancock

Summary Table
Hancock County, 2000

Total Population Age 60+	12,277
% Population Age 60+	17.2
Population Age 40+	31,268
% Population Age 40+	43.9
% Population 60+ at or Below Poverty Level*	11.4
Total Population Age 60+ with Self-Care Disabilities*	2,434
% Population Age 60+ with at Least one Physical, Mental, Sensory or Self-Care Disability*	34.3
% Population 60+ who are White	97.6
% Population Age 60+ who are Married*	60.7
% Population Age 60+ who are Living Alone*	32.0
% Population Age 60+ who Have Less Than a High School Diploma*	25.5

*These data categories reflect combined data from Hancock, Seneca and Wyandot counties.

County.

In some instances in this report, data are presented for the population age 40+. This cohort is important to consider when developing projections, because the population age 40+ in 2000 will be age 60+ in 2020. The population that is currently 40+ is also significant because it contains the baby boom generation. As shown in the summary table, 43.9% of the population in Hancock County is currently over the age of 40.

In the remainder of this report, we explore variables (touched on in the Summary Table) that are related to long-term care needs. Factors related to one's need for long-term care include disability, income, race and ethnicity, marital and educational status, and living arrangements. The following sections provide detailed analyses of these risk factors according to gender, age group, county/state standing, and ten-year trends.

Population Profile

The total population of Hancock County increased by 8.8% between 1990 (65,536 residents) and 2000 (71,295 residents). The entire population of Ohio increased 4.7% in the same time. In 2000, 17.2% of the county population was 60+. Table 1 provides a detailed breakdown of the older population in Hancock County in 2000 by age group and gender.

Table 1
Population Age 60+, by Gender and Age Group
Hancock County, 2000

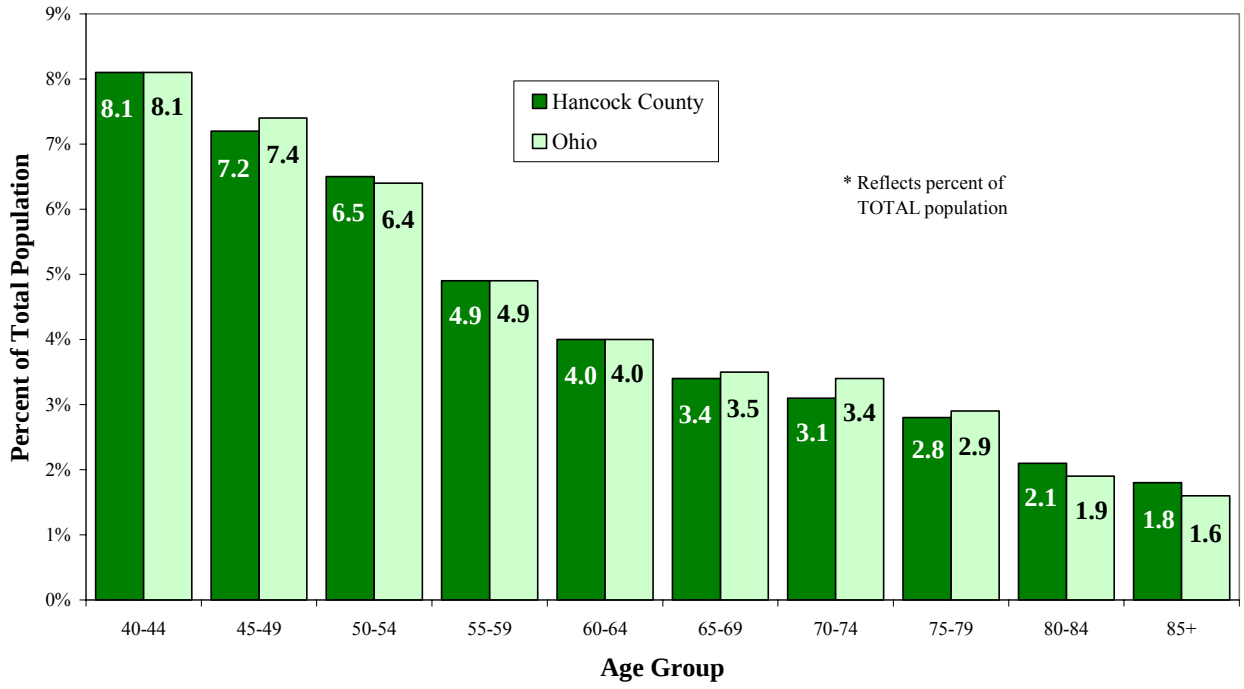
	Men		Women		
Age Group	**Number**	**Percent**	**Number**	**Percent**	**Total**
60-64	1,395	48.9	1,459	51.1	2,854
65-69	1,110	45.7	1,321	54.3	2,431
70-74	968	43.8	1,244	56.2	2,212
75-79	764	38.5	1,221	61.5	1,985
80-84	575	37.8	946	62.2	1,521
85-89	226	28.3	573	71.7	799
90-94	83	23.4	271	76.6	354
95+	14	11.6	107	88.4	121
Total 60+	5,135	41.8	7,142	58.2	12,277
Ohio 60+	823,200	41.9	1,140,289	58.1	1,963,489

Source: U.S. Census Bureau, 2000 Census of Population: Table P12. SEX BY AGE [49] - Universe: Total Population

Gender Distribution - The gender distribution of the older population in Hancock County is similar to that of the state of Ohio. Of the entire county population age 60+, women comprise 58.2% (compared to 58.1% in the state). As shown in Table 1, women outnumber men at all ages over 60; a disparity that increases with each advancing age group. Of particular interest is the gender ratio among the oldest age group. Of the population over the age of 84 in Hancock County, 74.6% are women. The higher proportion of women among the oldest age group suggests that the population potentially eligible for, and in need of, long-term care services is largely female.

Growth in the Older Population - As shown in Figure 1, there are only slight differences in the population distribution across age groups in the county compared to the state. Although the majority of Ohioans are under the age of 60, the proportion of older adults in Hancock County (and Ohio) will grow substantially over the next several decades. This growth in the older population is largely a result of the aging baby boomers. Currently ranging from 40 to 59 years of age, this cohort will dramatically impact the age distribution of the older population as they age. The influence of the baby boomers on both county and state populations is evident in Figure 1.

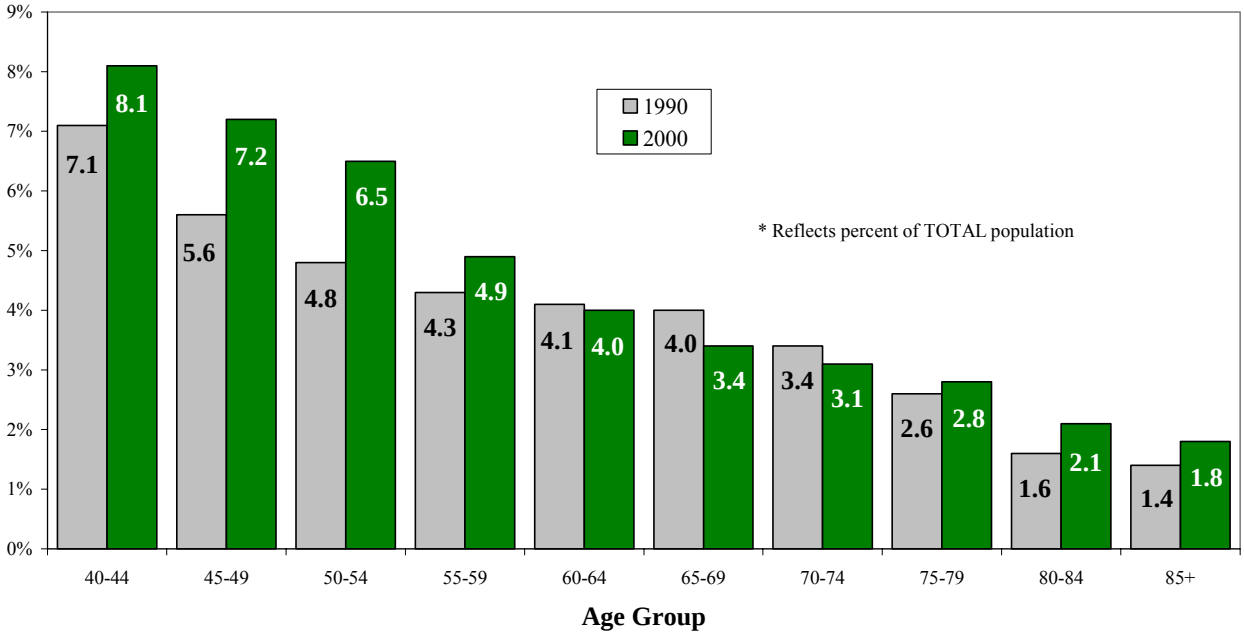
Figure 1
Population Distribution* by Age Group (40-85+)
Hancock County & Ohio, 2000



Source: U.S.Census Bureau, 2000 Census of Population:P12. SEX BY AGE [49].

The impact of the baby boomers on the age distribution of the 40+ population is also evident when population data from 2000 are compared to data from 1990. As shown in Figure 2, 26.7% of the county population was age 40-59 in 2000, compared to 21.8% in 1990. Also noteworthy is the increase in the population over the age of 85. In Hancock County, this age group comprised 1.8% of the population in 2000 compared to 1.4% in 1990 (a 28.6% increase in the 85+ population). In Ohio, 1.6% of the population was over the age of 85, compared to 1.3% in 1990 (a 25.0% increase in the 85+ population).

Figure 2
Population Distribution* by Age Group (40-85+)
Hancock County, 1990 & 2000



Source: U.S. Census Bureau, 1990 Summary Tape File 1 (STF1) P011 & 2000 Census of Population: P12. SEX BY AGE [49].

Another indication that the population in Hancock County is aging is the increase in median age[1]. Between 1990 and 2000, median age increased from 32 years (1990) to 36 years (2000). This increase closely reflects that of the state, where the median age rose from 33 to 36 years in the same period. An increase in median age suggests that the proportion of older adults in Hancock County is growing. As these segments of the county population reach advanced age, the need for long-term care services may increase.

[1] The **median age** of a population is that age that divides a population into two groups of the same size, such that half the total population is younger, and the other half is older.

Population Projections

This section of the report focuses on the expected growth of the overall older population, and on the growth of the older population who will experience some limitation in their ability to perform basic *activities of daily living* (ADLs) such as bathing, dressing, and preparing meals.

To project the size of the population age 60 and older for the years 2005 to 2020, we began with the population (already born) that has reached at least the age of 40. Using the *cohort component* methodology of population projection (Shryock & Siegel, 1996), we made the following assumptions about both survival and migration rates:

Survival Rate: Ohio's survival rates are based on national projected survival rates. These rates include improvements in national mortality rates, while maintaining deviation from the national rates observed in Ohio in the 2000 Vital Statistics.

Migration Rate: The 10-year net migration rates were estimated using age-sex counts of each county's population in the 1990 and 2000 Censuses adjusted for the deaths occurring to the age-sex group from April 1, 1990 through March 31, 2000. Of course, in calculating the deaths occurring to an age group, adjustment was made for the group's aging during the decade. The age-sex specific rates of net migration for each county during 1995-2000 are assumed to hold for that county during the period 2000-2005 and 2005-2020. For a more detailed explanation of the procedures used for determining survival or migration rates see the Methodology section.

A beneficial feature of these population projections is the detailed presentation of the 85-89, 90-94, and 95+ age groups (when possible) for the following reasons:

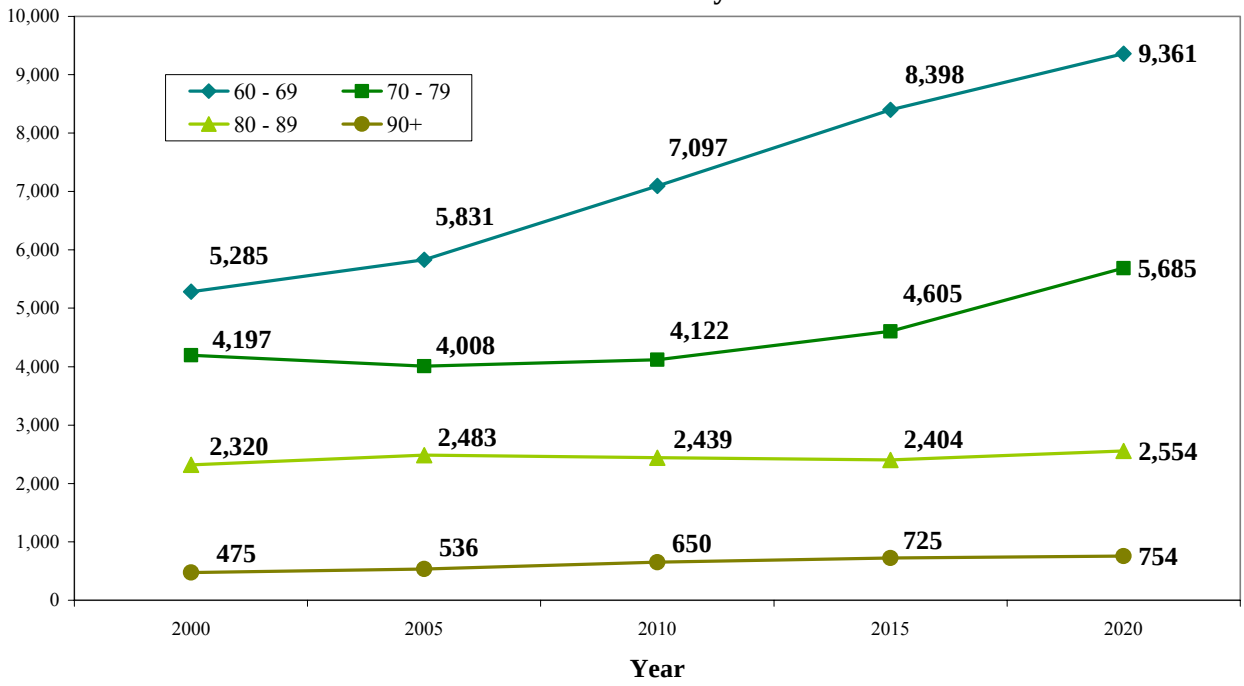
1.) The high rate of growth of the population 85 years and over;

2.) Rates of disability vary considerably among these age groups;

3.) The Federal Interagency Forum on Aging-Related Statistics now recommends that data be presented for ages 85-89, 90-94, and 95+ (http://www.agingstats.gov/chartbook2000/dataneeds.html).

The number of Hancock County residents age 60 and over is expected to increase from a total of 12,277 in 2000 to a projected 18,354 in 2020. As Figure 3 (and Table 1a in the Appendix) illustrates, the greatest increase is expected among the 60-69 year age group (those currently age 40-49). In 2000, there were 5,285 older adults age 60-69 in Hancock County. By the year 2020, when the bulk of the baby boomers move into this age group, it is expected that there will be approximately 9,400 individuals age 60-69 in Hancock County. This projection suggests a 77.1% increase in the County population in this age group. The 90+ age group is also expected to increase, from 475 in 2000, to 754 in 2020 (an increase of 58.7%).

Figure 3
Projections of Population Age 60+, by Year* and Age Group, Hancock County

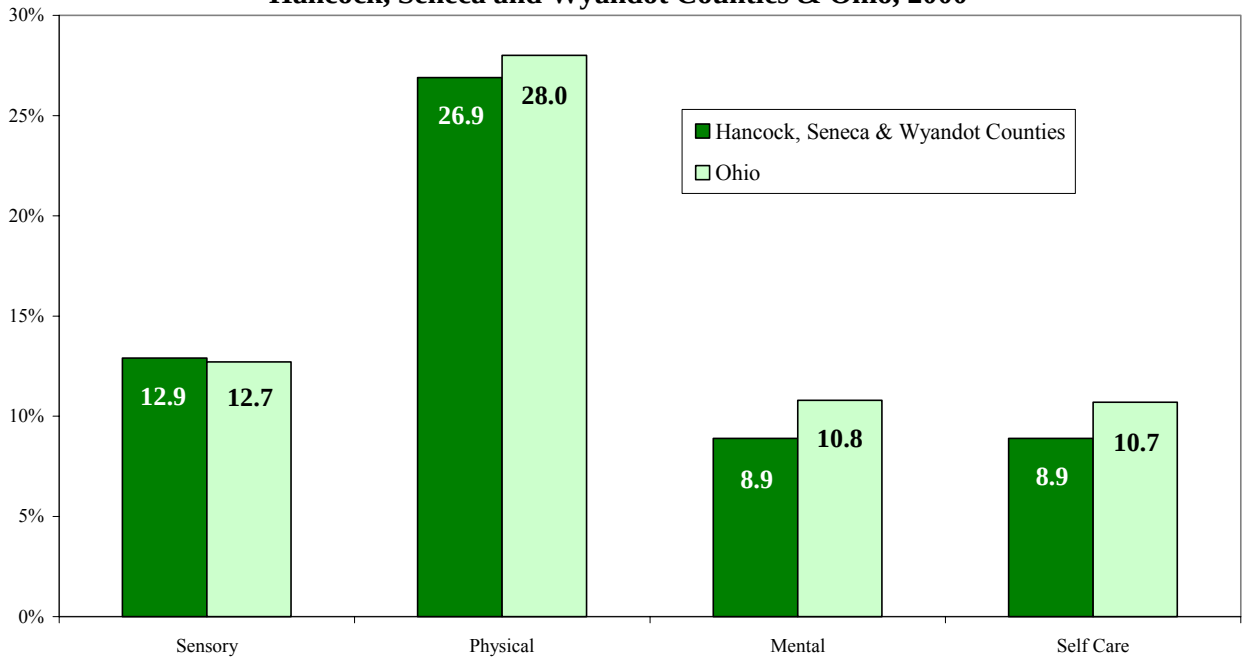


Source: Authors' projections.
*Year 2000 data are actual population counts.

Prevalence of Disability among the 60+ Population

The rate of disability among the 60+ population in Hancock, Seneca, and Wyandot Counties[2] closely mirrors the state of Ohio. In 2000, the most common type of disability reported was physical, followed by sensory, mental, and self-care impairments, respectively (see Figure 4). According to the Census, a physical impairment is defined as a long-lasting condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting or carrying. Sensory impairments include blindness, deafness, or any severe and long-lasting vision or hearing impairment. Mental health impairment is defined as having difficulty learning, remembering or concentrating because of a physical, mental, or emotional condition that lasts 6 months or more. Self-care impairments include difficulty dressing, bathing, or getting around the house as a result of a long-lasting condition (6 months or more). It should be noted that these categories are not mutually exclusive. Respondents could have multiple impairments, which may span more than one disability category. In 2000, 34.3% of the 60+ population in Hancock, Seneca, and Wyandot Counties had at least one disability.

Figure 4
Proportion of Population Age 60+, with Sensory, Physical, Mental and Self-Care Disabilities, Hancock, Seneca and Wyandot Counties & Ohio, 2000

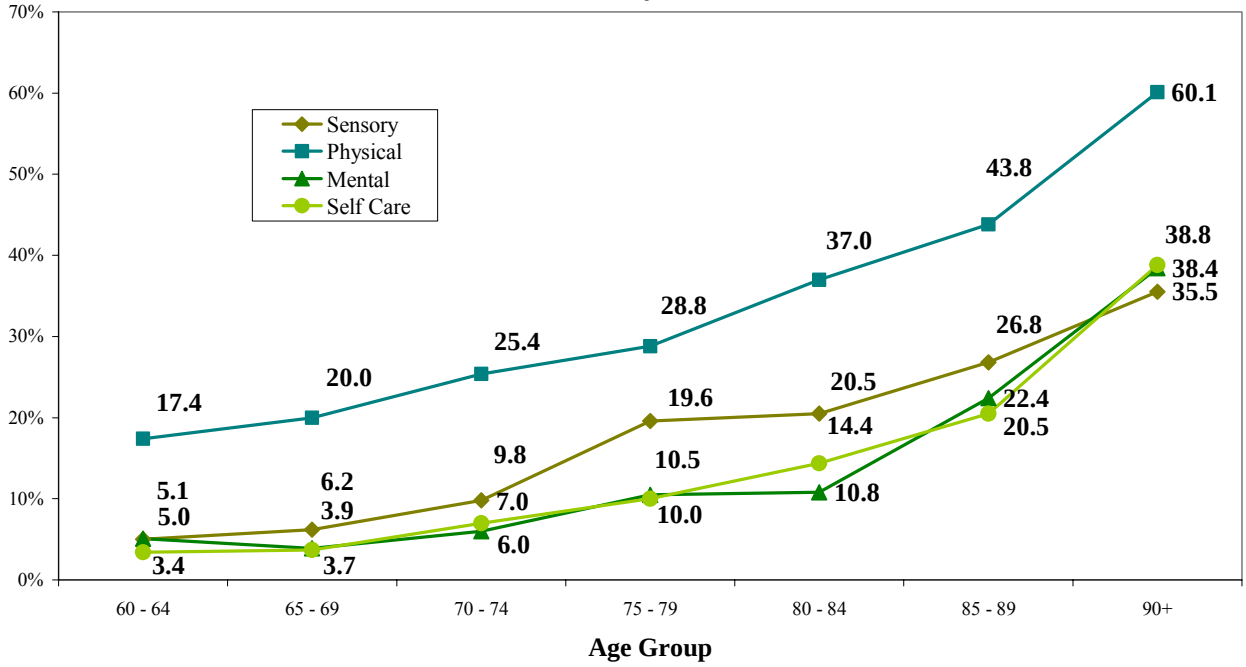


Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

[2] As explained in the Preface, Figures 4-6, 9-12, & 14-20 present data for Hancock, Seneca, and Wyandot Counties.

As illustrated in Figure 5, the percentage of individuals reporting sensory, physical, mental and self-care disabilities in Hancock, Seneca, and Wyandot Counties steadily increases with age, not surprisingly, with the oldest age group reporting the highest levels in all four types of disability. For example, the proportion of people with physical disabilities increases from 17.4% of the population age 60-64, to 60.1% of the population age 90+.

Figure 5
Disability Among Population Age 60+
by Type of Disability and Age Group,
Hancock, Seneca and Wyandot Counties, 2000



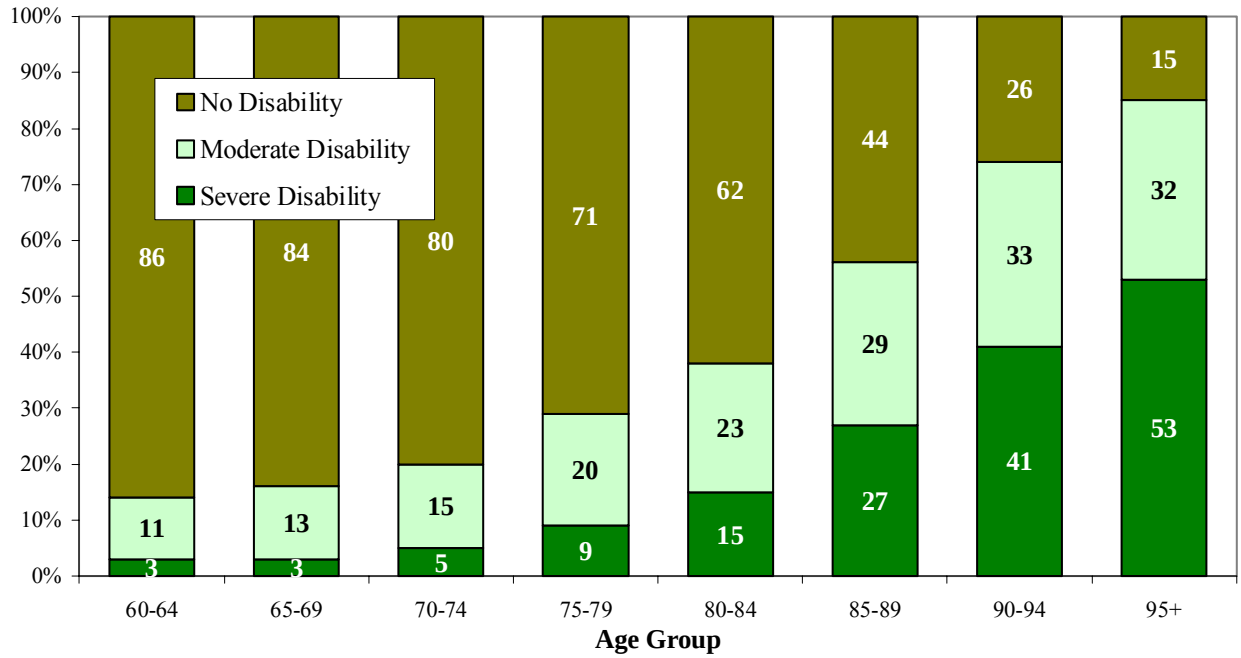
Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

Projections of Population with Disability

In this study, disability is defined as a measure of impairment in Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs). Three levels are assigned to this measure: Severe Disability, Moderate Disability, and Little or No Disability. Individuals are classified as moderately disabled if they received assistance in one of the following ADLs: eating, transferring in or out of bed or chair, getting to the toilet, dressing, bathing, or remaining continent; or in at least one of the following instrumental tasks of daily living: walking, shopping, meal preparation, housekeeping, or using transportation or telephone. Severe disability refers to receiving assistance in at least two of the following ADLs: eating, bathing, transferring in or out of bed or chair, getting to the toilet, dressing, or remaining continent, or to having cognitive impairment. The disability rates by sex and age group are assumed to remain the same from 2000 to 2020 as they were in 1995.

The prevalence of disability increases with age. As Figure 6 shows, only 3% of the population age 60-64 have a severe disability, compared to more than half (53%) of the people age 95 and older. Women experience higher rates of severe and moderate disability at every age compared to men of the same age. For more information on the prevalence of disability among men and women by age group, see the Methodology section.

Figure 6
Estimated Percentage Distribution of Total Population by Disability Status and Age Group, 1995



Source: Mehdizadeh, S.A., Kunkel, S.R., Ritchey, P.N. (2001). *Projections of Ohio's Older Disabled Population: 2015 to 2050*. Oxford, OH: Scripps Gerontology Center, Miami University.

Since the rate of disability by gender and age group was held constant throughout the timeline (see the Methodology section for a more detailed explanation), any fluctuations in the number of persons with disabilities across time are attributed to projected changes in the number of people in each age-gender group. As was discussed in the population projections section (see Figure 3), the greatest increases in the 60+ population are expected in the 60-69 and 90+ age groups, while more modest increases are expected in the 70-79 and 80-89 age groups. Because increases are expected in all segments of the 60+ population, the projected number of persons with disabilities is expected to increase from 2000-2020 in Hancock County (see Table 2 below, and Table 1a in the Appendix). When broken down by age group, projections suggest the greatest increases in both moderate and severe disability among the 60-69 and 90+ age groups because of projected increases in these populations. Table 1a in the Appendix provides a breakdown of the projected number of disabled persons for each age group for Hancock County.

Table 2
Projections of Disability Among Population Age 60+
Hancock County, 2000*-2020

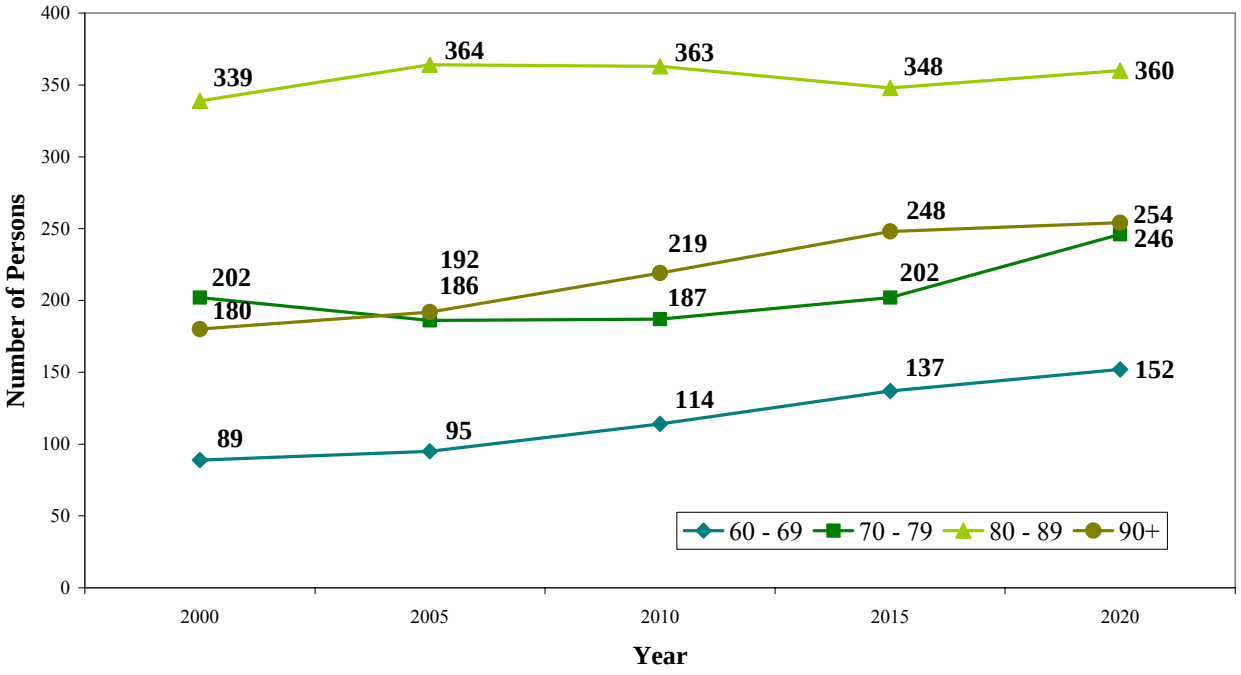
Year	Total Population	No Disability	Moderate Disability	Severe Disability
2000	12,277	9,068	2,087	1,122
2005	12,858	9,495	2,184	1,179
2010	14,308	10,669	2,372	1,267
2015	16,132	12,156	2,615	1,361
2020	18,354	13,909	2,951	1,494

Source: Authors' Projections
* Year 2000 data are actual disability counts, years 2005-2020 are projections.

Figures 7 and 8 (and Tables 2a and 3a in the Appendix) show the projected number of disabled women and men (respectively) in Hancock County according to age group. Because the rates of disability are assumed to be constant over the future time horizon, projected changes in the number of people with disabilities reflect changes in population composition.

With regard to the older female population, 810 were severely disabled in 2000, compared to a projected 1,012 in 2020. Changes in the number of disabled older adults are expected only in age groups where population changes are expected. Figure 7 shows that between 2000 and 2020, an increase in numbers of severely disabled women age 60+ is expected among all age groups in Hancock County, as these populations are expected to increase.

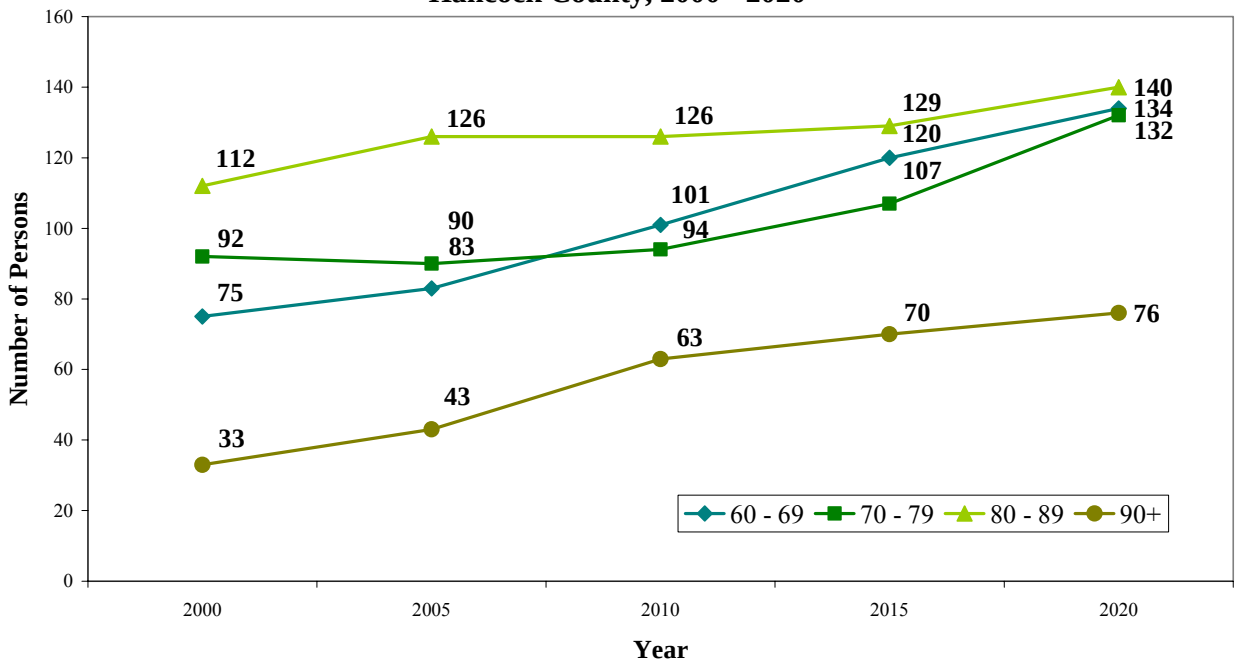
Figure 7
Projections of the Number of Women Age 60+ with Severe Disability, by Age Group, Hancock County, 2000*-2020



Source: Authors' projections.
*Year 2000 data are actual disability counts.

The population with severe disabilities in Hancock County is largely female. In 2000, a total of 312 males age 60 and over were severely disabled (compared to 810 females). By the year 2020, it is expected that the number of disabled older men will increase to 482 (compared to 1,012 older women). Figure 8 shows that the largest increase in the number of severely disabled men is expected among the 90+ age group. Smaller increases in the number of severely disabled men are expected among the 60-69, 70-79, and 80-89 age groups in Hancock County.

Figure 8
Projections of the Number of Men Age 60+ with Severe Disability, by Age Group, Hancock County, 2000*-2020



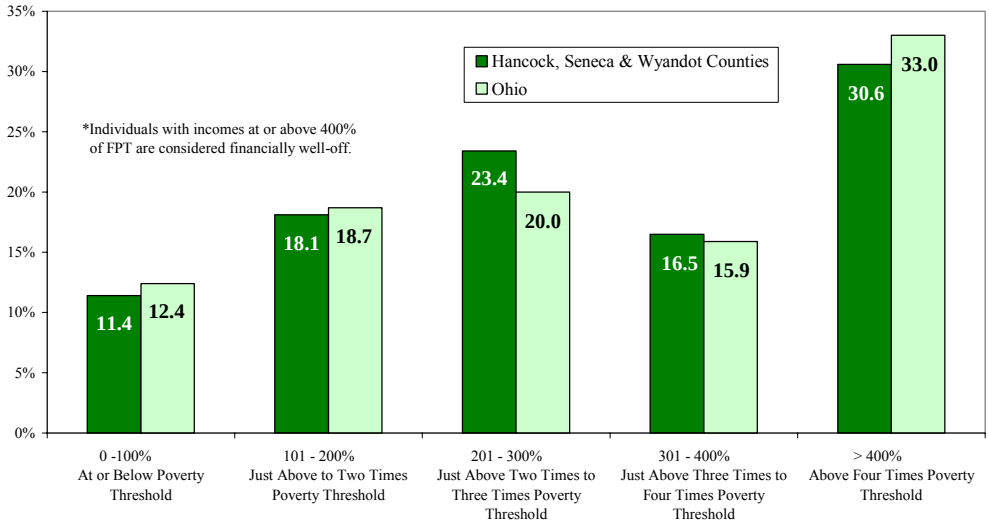
Source: Authors' projections.
*Year 2000 data are actual disability counts.

Population Characteristics that Could Affect Need for Care

Several variables have been found to be related to the prevalence of disability and the need for long-term care services as one ages. These variables include poverty, racial and ethnic background, marital status, living alone, and educational attainment (http://www.aoa.gov/prof/statistics/future_growth/aging21/Program.asp). In the following sections, these issues are explored in the context of the older population in Hancock, Seneca, and Wyandot Counties.

Poverty - Standards for gauging poverty levels are set by the Federal Poverty Threshold[3], which delineates income levels (or thresholds) that vary by family size, age of householder, and number of related children under 18 years of age. Rates of poverty are typically discussed as percentages of the Federal Poverty Threshold (FPT), for which those with incomes below 100% of the FPT are the most impoverished, and those with incomes above 400% of the FPT are the most economically advantaged. In the following discussion, data regarding individuals with incomes greater than 400% of the poverty level are included for comparison, although these individuals are not considered impoverished. As shown in Figure 9, a significant number of older adults in Hancock, Seneca, and Wyandot Counties are potential candidates for state and federal assistance based on income eligibility. In 2000, 52.9% of the 60+ population had incomes below 300% of the federal poverty level. Of this population, 11.4% were living at or below 100% of the poverty level.

Figure 9
Proportion of Population Age 60+ by Poverty Threshold Ratio, Hancock, Seneca and Wyandot Counties & Ohio, 2000

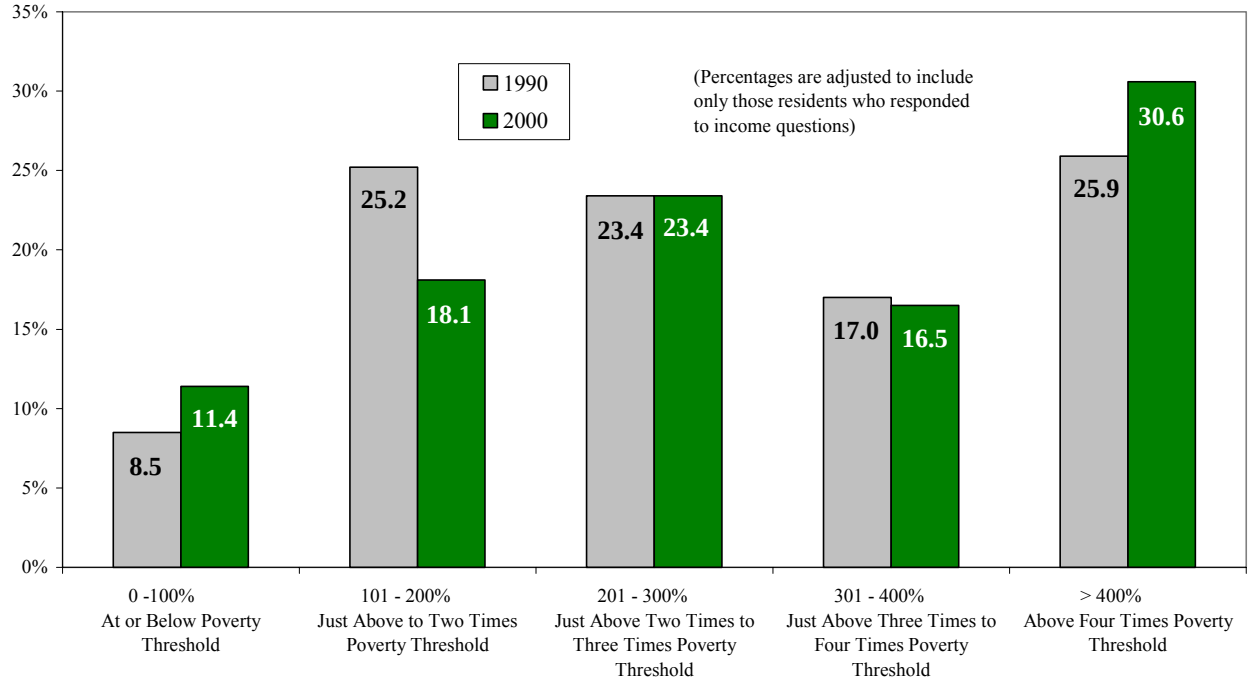


Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

[3] **Federal Poverty Threshold** - In 2000, the poverty level was $8,959 for one person under the age of 65, and $8,259 for an individual over 65. For two person households, the poverty level was $11,590 if the householder was under 65 and $10,419 when the householder was 65+. In 1990, the poverty threshold was $6,800 (annual income) for one person under the age of 65, and $6,268 for an individual over 65. For two person households, where the householder was under the age of 65, the poverty threshold was $8,794, and $7,905 when the householder was 65+. For more information about poverty thresholds, see: http://www.census.gov/hhes/poverty/threshld.html

Compared to 1990, there were a higher percentage of older adults living at both ends of the poverty scale in Hancock, Seneca, and Wyandot Counties in 2000. Figure 10 shows that the percent of adults 60+ living below the poverty level increased from 8.5% in 1990 to 11.4% in 2000. At the other end of the scale, the percent of older adults with incomes over 400% of the poverty level (the most economically advantaged) also increased in this period, from 25.9% in 1990, to 30.6% in 2000. A considerable number of people did not complete income related questions properly in the 1990 Census. As a result, the gap in the percentage of people at or below poverty from 1990 to 2000 may be partially due to this responding pattern.

Figure 10
Proportion of Population Age 60+ by Poverty Threshold Ratio, Hancock, Seneca and Wyandot Counties, 1990 & 2000

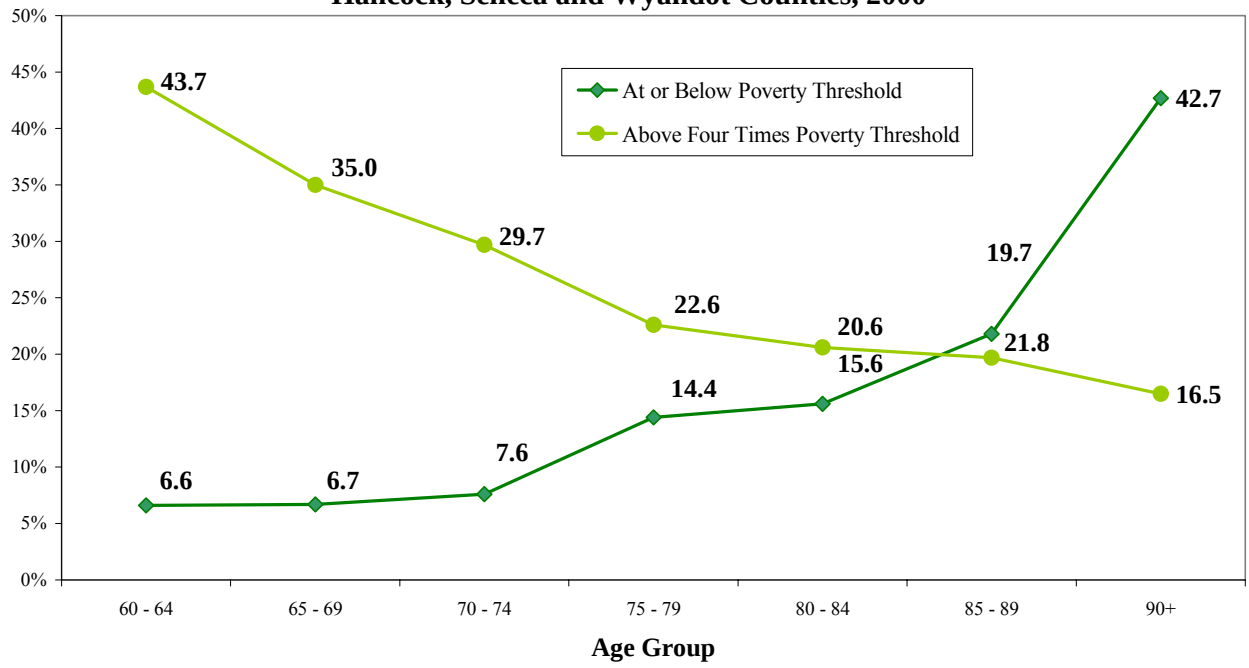


Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

A closer examination of poverty rates in Hancock, Seneca, and Wyandot Counties reveals striking trends in relation to age. As shown in Figure 11, the percentage of people at or below the poverty level increases dramatically with advancing age. To illustrate, nearly one-half (43.7%) of 60-64 year olds reported incomes above four times the poverty threshold (the highest income category), compared to only 16.5% of those in the oldest age group (90+). In contrast, 6.6% of 60-64 year olds fall in the lowest income category, while 42.7% of the 90+ population reported incomes at or below the poverty threshold.

Figure 11

Proportion of 60+ Population in Poverty Compared to Those with Incomes Above Four Times Poverty Threshold, by Age Group, Hancock, Seneca and Wyandot Counties, 2000



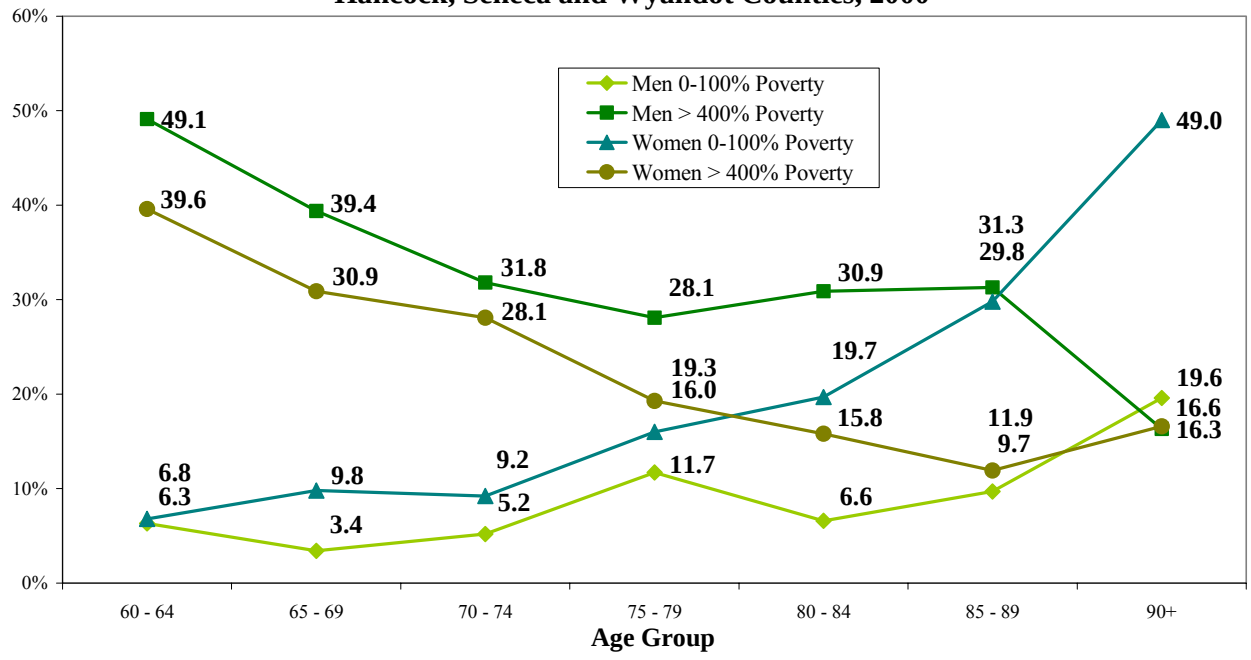
Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

Figure 12 shows a comparison of the most economically disadvantaged income category (≤ 100% FPT) and the most economically advantaged income category (> 400% FPT) by gender and age group. In order to show the contrast between the lowest and the highest income groups, the middle income categories have been intentionally left out.

In 2000, 49.1% of men age 60-64 were in the highest income category, while only 16.3% of men 90+ had this level of income. In contrast, only 6.3% of men age 60-64 were in the lowest income category, compared to 19.6% of men age 90+. Figure 12 shows that a fairly stable percentage of older men were classified as having incomes at or below 100% of the FPT from ages 60-84, with a sharp increase in the proportion of men in this income category as they approach the 90+ age group. It appears that age 85-89 is a pivotal point for men, where average incomes drop sharply as they near the 90+ age group.

The pattern of income distribution among older women in Hancock, Seneca, and Wyandot Counties is similar to that of older men. One important distinction is that there is a higher proportion of women in the lowest income category (≤ 100% FPT), and a lower proportion of women in the highest income category (>400% FPT) at all ages.

Figure 12
Proportion of Population Age 60+,
by Poverty Threshold Ratio*, Age Group, and Gender,
Hancock, Seneca and Wyandot Counties, 2000

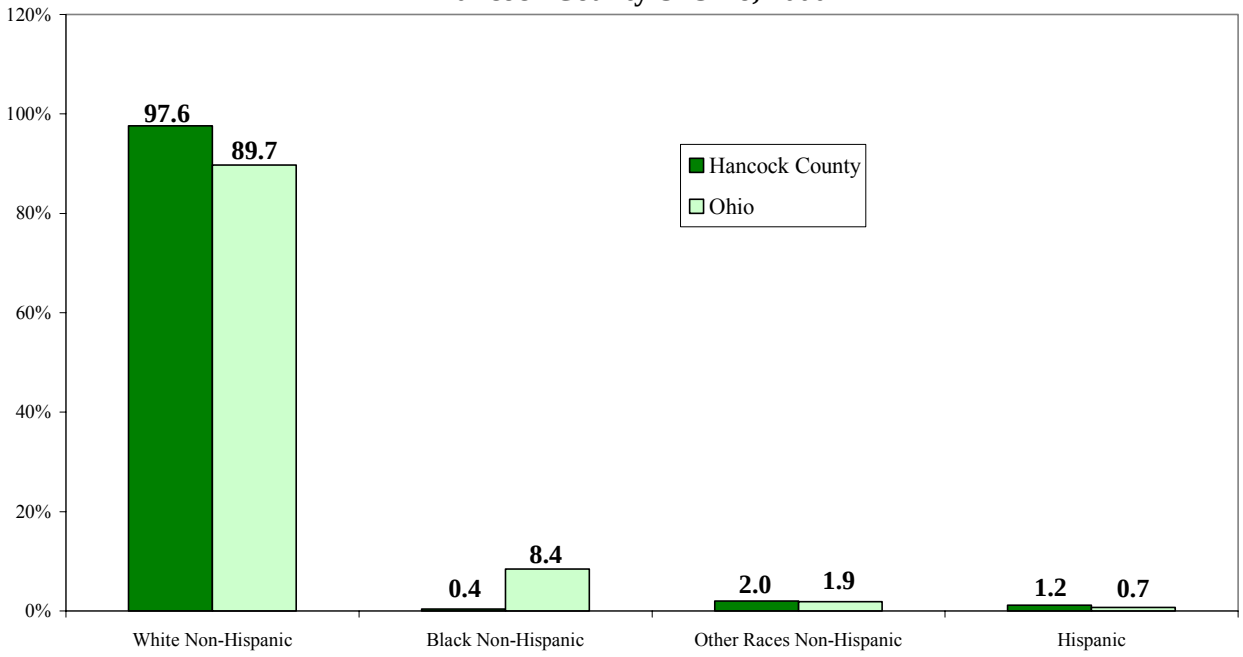


Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.
*Middle income groups have been removed in order to show the contrast between the lowest and highest income groups.

Race and Ethnicity

Hancock County's older population is less racially and ethnically diverse than the older population in Ohio as a whole. Figure 13 shows that in 2000, 97.6% of the county population (60+) identified themselves as white non-Hispanic, compared to 89.7% of the state population. In the same year, 0.4% of the county population self-identified as black non-Hispanic, compared to 8.4% of the state population.

Figure 13
Race and Ethnic Distribution Among Population Age 60+, Hancock County & Ohio, 2000

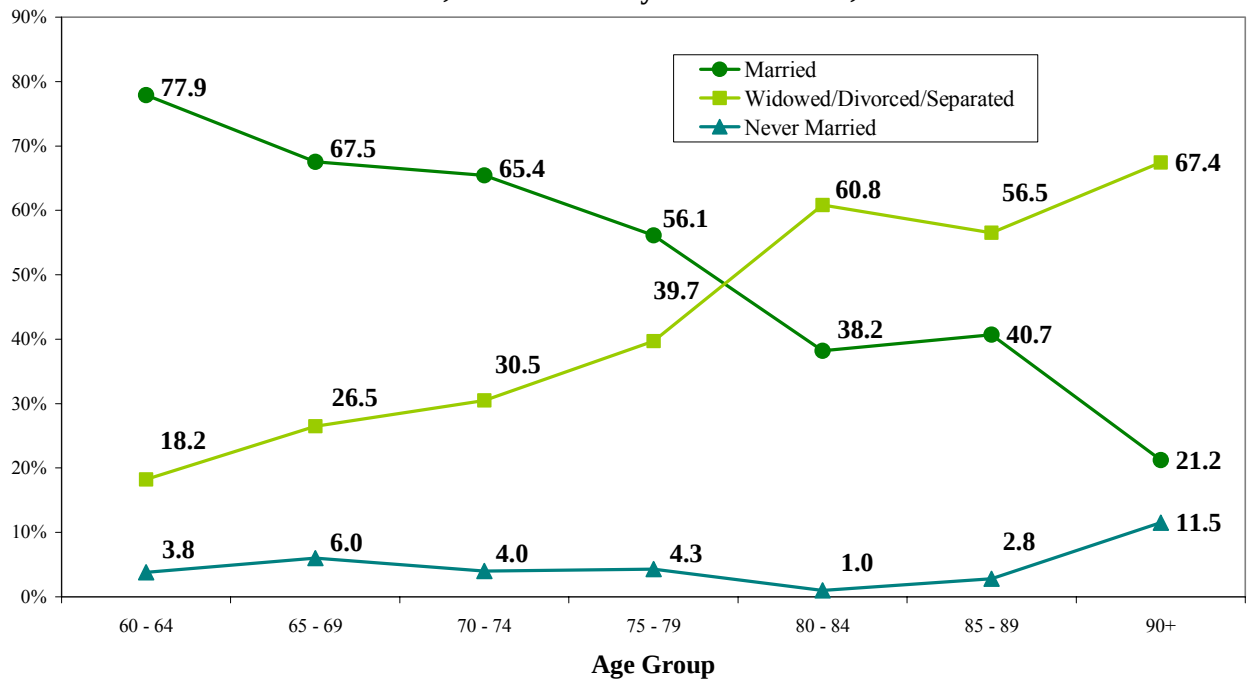


Source:U.S.Census Bureau, 2000 Census of Population: PCT12I, PCT12J, & PCT12H SEX BY AGE.

Marital Status

According to Census data, the percentage of married older adults decreases steadily after age 60. As illustrated in Figure 14, the majority (77.9%) of 60-64 year olds were married in 2000, while 22.0% were single (defined as widowed, divorced, separated or never married). In contrast to 60-64 year olds, the marital status of the 90+ population is nearly the inverse. Among this age group, 78.9% were single in 2000, while 21.2% were married.

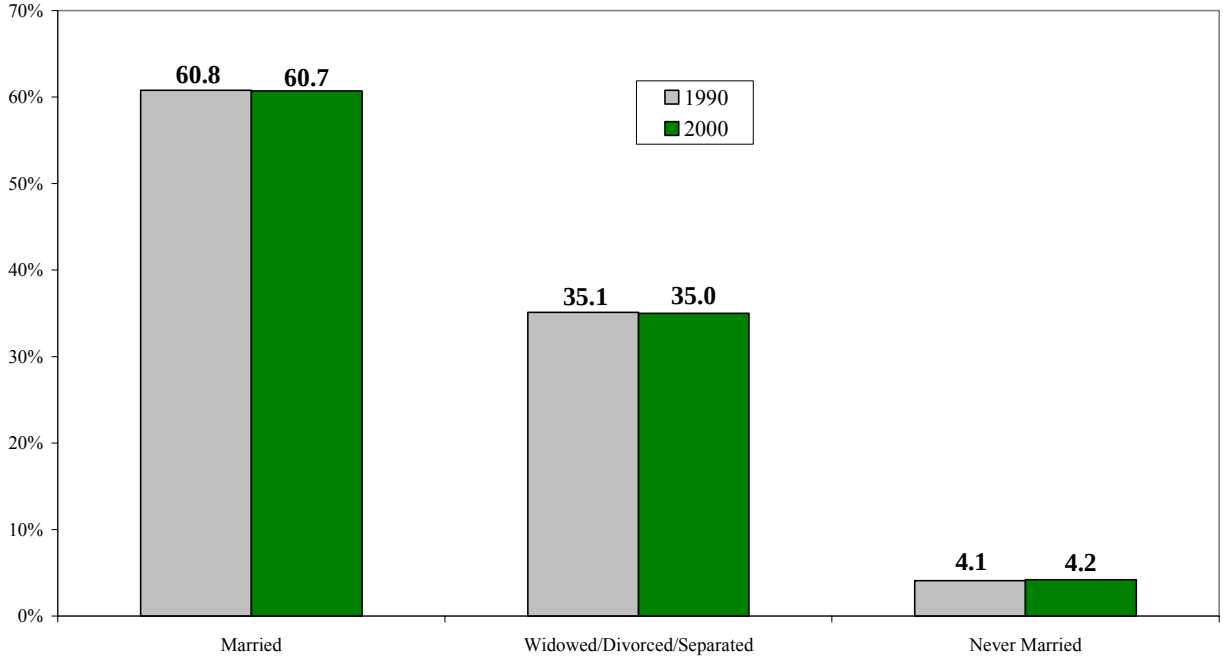
Figure 14
Marital Status of Population Age 60+, by Age Group
Hancock, Seneca and Wyandot Counties, 2000



Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

Between 1990 and 2000, the percentage of married older adults (60+) in Hancock, Seneca, and Wyandot Counties remained fairly stable. In 2000, 60.7% of older residents were married compared to 60.8% in 1990. Similarly, no major changes occurred among the single population (people who were widowed, divorced, separated, or never married). In both 2000 and 1990, 39.2% of the 60+ population was single (see Figure 15).

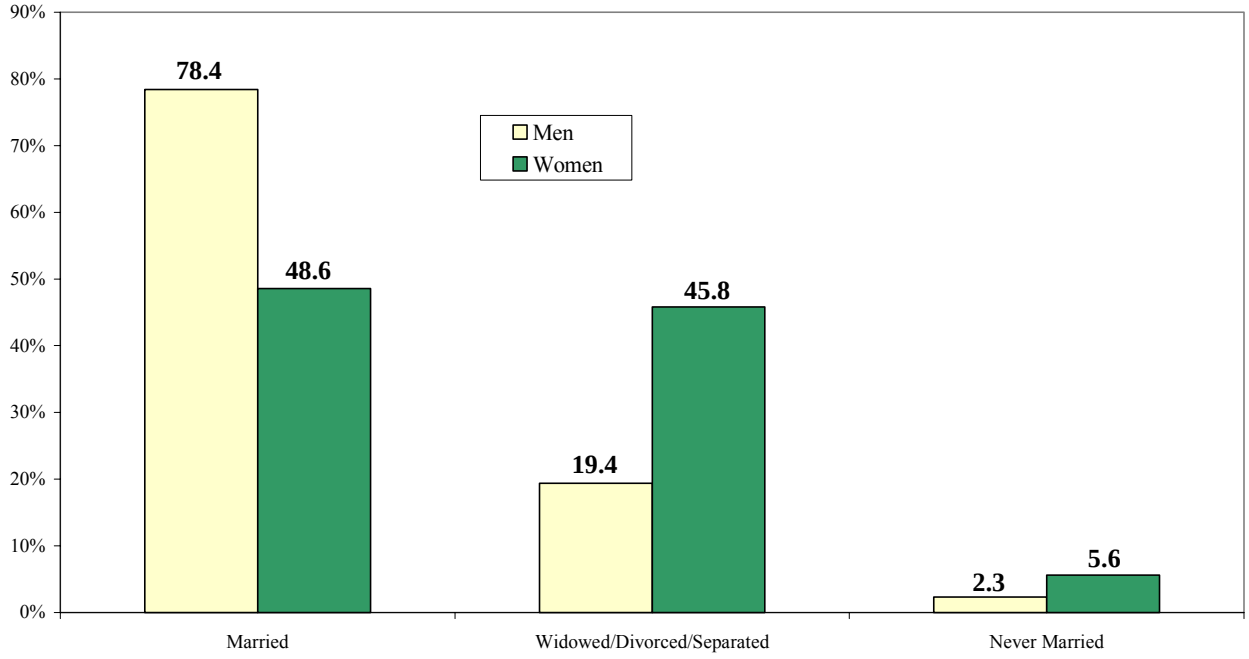
Figure 15
Marital Status Among Population Age 60+,
Hancock, Seneca and Wyandot Counties, 1990 & 2000



Source: U.S. Census Bureau, 1990 and 2000: Public Use Microdata Sample: 5-Percent.

Women above the age of 60 are more likely to be widowed, divorced, or separated than men. Figure 16 shows that 78.4% of men age 60+ in Hancock, Seneca, and Wyandot Counties were married in 2000, compared to only 48.6% of women. Because single older adults are more likely than married couples to need outside help or institutional care, the population in Hancock, Seneca, and Wyandot Counties that is potentially in need of such assistance is largely female.

Figure 16
Marital Status Among Population Age 60+, by Gender
Hancock, Seneca and Wyandot Counties, 2000



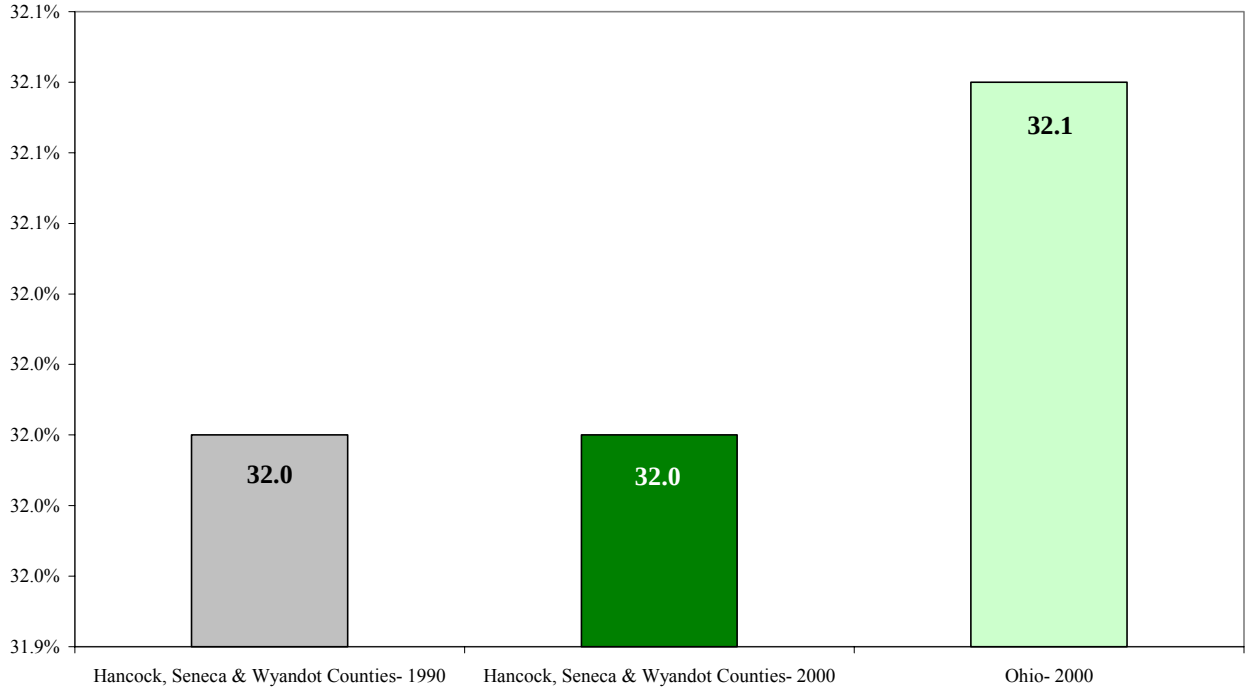
Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

Living Alone

Figure 17 compares the proportion of Hancock, Seneca, and Wyandot County residents age 60+ who were living alone in 2000 to Ohio, and illustrates the changes that occurred in the county population (60+) living alone between 1990 and 2000.

In 2000, 32.0% of Hancock, Seneca, and Wyandot County residents age 60+ were living alone, compared to 32.1% of the state population age 60+. The percentage of older adults living alone in Hancock, Seneca, and Wyandot Counties has remained the same since 1990, at 32.0% of the 60+ population.

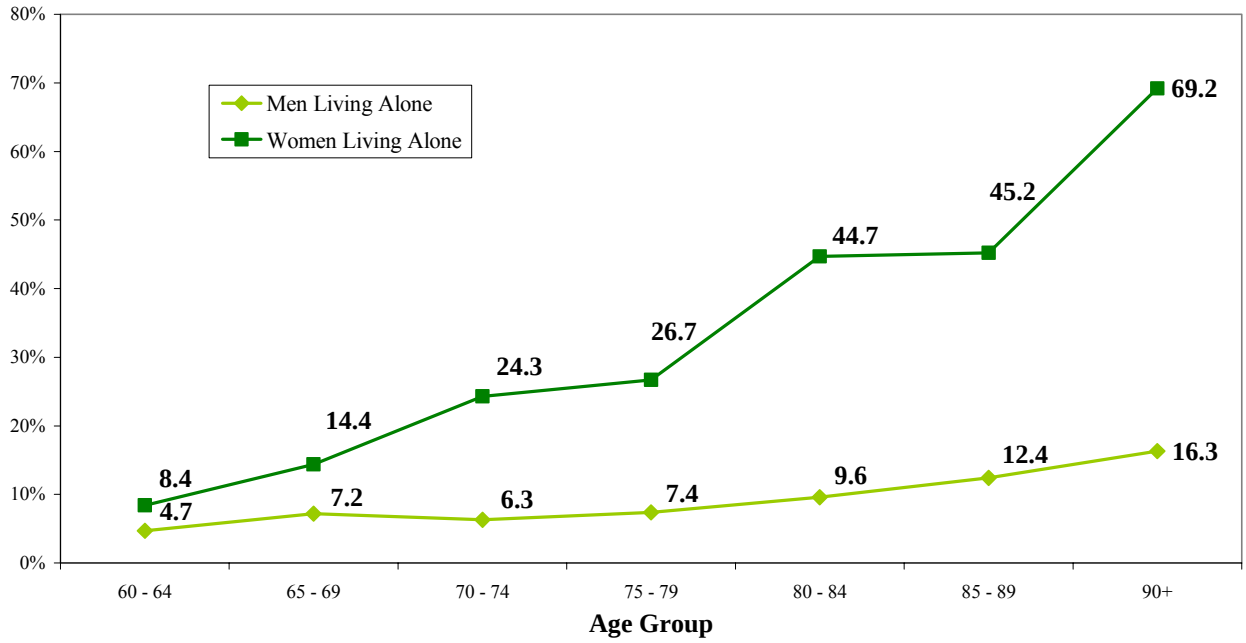
Figure 17
Proportion of Population Age 60+ Living Alone,
Hancock, Seneca and Wyandot Counties, 1990 & 2000, and Ohio, 2000



Source: U.S. Census Bureau, 1990 and 2000: Public Use Microdata Sample: 5-Percent.

Older women are more likely than older men to be living alone in Hancock, Seneca, and Wyandot Counties. Figure 18 shows that a higher percentage of women than men are living alone at all ages above 60. While the percentage of men living alone increases only slightly with age, the percent of women living alone increases dramatically with age. Among the 60-64 year age group in 2000, 8.4% of women were living alone, compared to 4.7% of men. Among the oldest age group (90+), 69.2% of women were living alone, compared to only 16.3% of their male counterparts.

Figure 18
Proportion of Population Age 60+ Living Alone, by Gender, and Age Group, Hancock, Seneca and Wyandot Counties, 2000

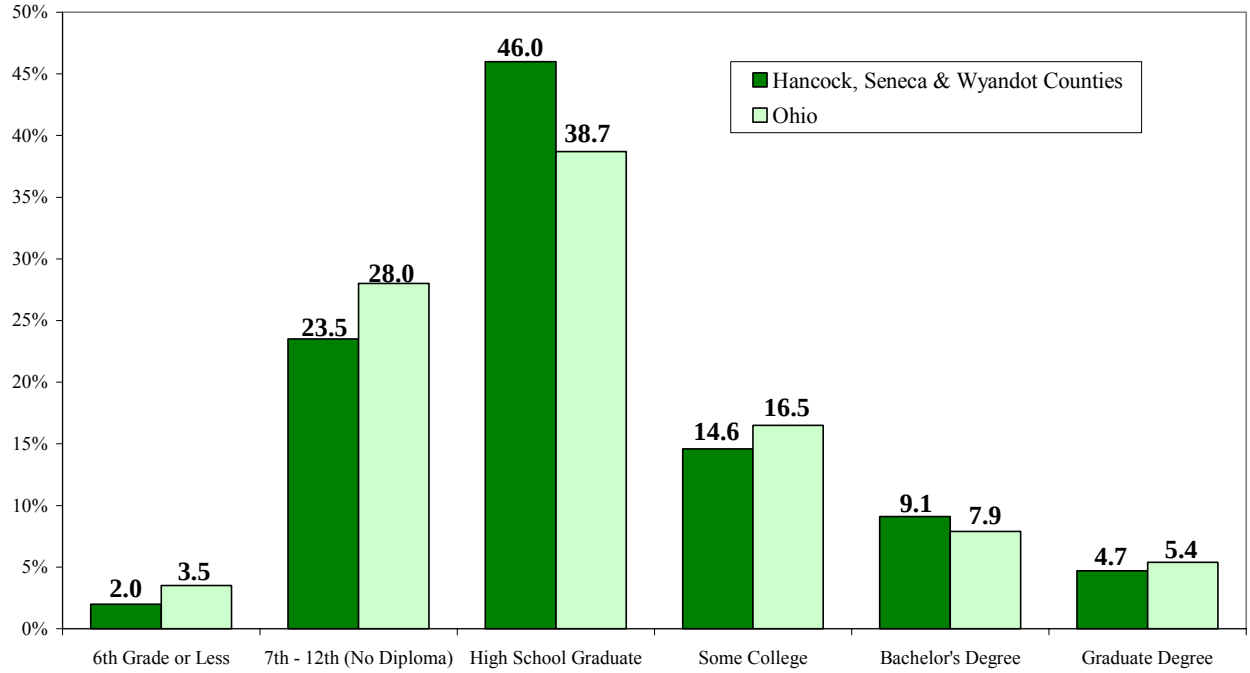


Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

Education

Studies suggest that there is a strong relationship between educational attainment and the prevalence of poverty and disability in old age. Figure 19 shows that the majority of older adults (60+) in Hancock, Seneca, and Wyandot Counties have completed 12 or fewer years of school. Almost one half (46.0%) of older adults have completed high school, and 25.5% have completed less than 12 years. This suggests that a significant proportion of the older population may be economically vulnerable.

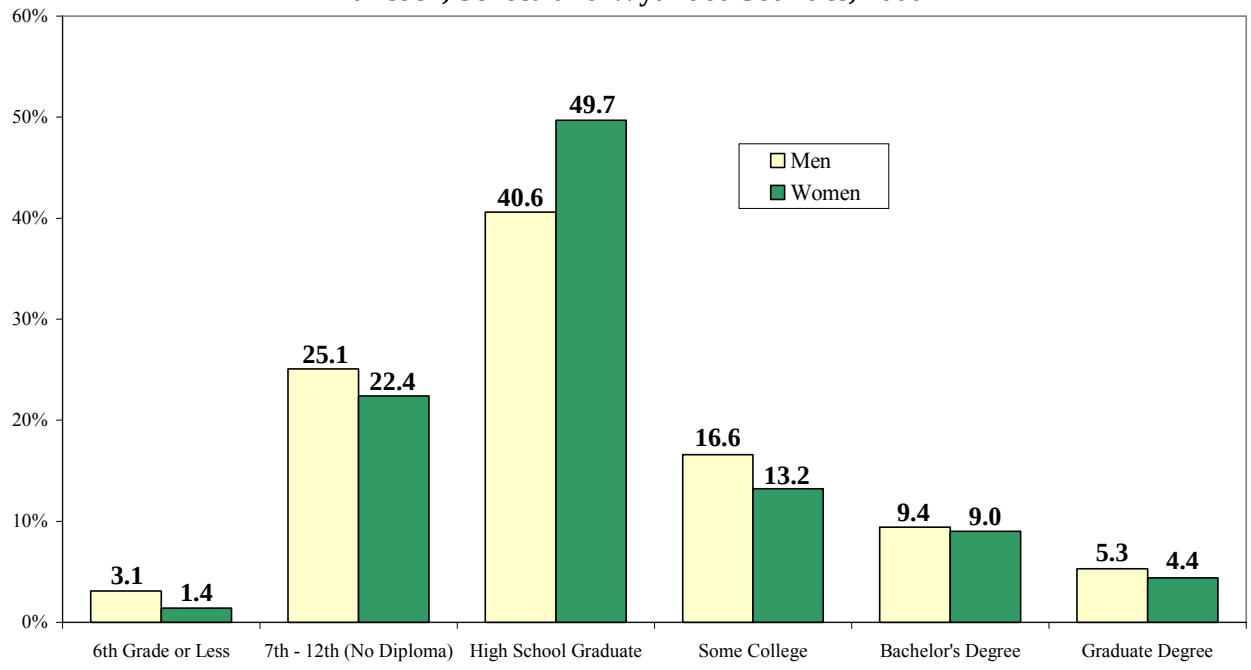
Figure 19
Highest Level of Educational Attainment
Among Population Age 60+
Hancock, Seneca and Wyandot Counties & Ohio, 2000



Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

Figure 20 contrasts the educational attainment of older adults in Hancock, Seneca, and Wyandot Counties by gender. Older women are more likely to have only completed high school, while older men are more likely to have pursued and obtained higher degrees. As a whole, the older female population in Hancock, Seneca, and Wyandot Counties is less educated than the older male population.

Figure 20
Highest Level of Educational Attainment
Among Population Age 60+, by Gender
Hancock, Seneca and Wyandot Counties, 2000



Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.

Summary

This analysis of population trends and projections in Hancock County, Ohio reveals several important issues with regard to the prevalence of poverty and disability among the older population. Primarily, it is evident that the County population is aging, and the population age 60+ will continue to grow over the next twenty years. More specifically, the so-called "oldest old" (85+) are the fastest growing age group in the County (as well as the state of Ohio). The unprecedented growth in the older population will present the County (and the state) with a number of challenges in the coming years. Among the older population in Hancock County, levels of disability and poverty increase with age, with the oldest old experiencing the highest rates of both. Also of concern is the preponderance of older women among the oldest age groups, who comprise a majority of the impoverished, disabled and single populations. These women, who are highly economically vulnerable, and are potentially in need of significant personal care assistance, are frequently living alone; a trend that is expected to become increasingly common over the next several decades.

Methodology

Projections of the disabled older population in Hancock County were calculated in three steps. We developed projections of the county's older population by gender and age groups from 2000 to 2020. We also made estimates of disability rates for the older population by gender and age groups. And, we applied these disability rates to the projected population to project the number of persons with a disability in Hancock County.

Projection Method - We developed population projections using the "cohort component method" (Shryock & Siegel, 1996). This method involves beginning with actual population counts in gender and age groups, and applying specific rates of change (births, deaths, and migration) to estimate the future population. We projected the population in cycles of 5-year periods through the year 2020. We applied projected survival rates to the beginning population in order to calculate the surviving population for a 5-year period (see following section for an explanation of survival rates). Next, we applied gender and age group specific migration rates to calculate the number of survivors leaving and joining the county population during the five years. The final projected population equals the survived population plus the difference between the number of migrants leaving and joining the county. The projected population at the end of each 5-year period becomes the beginning population for the next 5-year period, and the procedure is repeated over the desired time horizon. We used 5-year age groupings of men and women to make the projections. In order to project the population that will be 60+ in 2020, we began with the population that was 40+ in 2000 (these cohorts, of course, age as they are projected forward).

Survival Rates - To calculate survival rates for the older population in Ohio, we combined projected national mortality rates from the Census with actual mortality rates for the state to develop a trended set of survival rates for 2005-2020. All calculations were done for each gender in 5-year age groups. Using Census projected life tables for 2000, 2005, 2010, 2015, and 2020, we developed 5-year survival rates for the nation (for life tables, see http://www.census.gov/population/www/projections/natdet.html). Using Ohio counts of death and counts of population for 2000, we developed survival rates for Ohio for 2000. We then projected the County's survival rates to pattern the expected change for the Nation while maintaining the difference between the County and the Nation that occurred in 2000.

Migration Rates - We computed net migration estimates (i.e., the difference in the number of migrants joining and leaving the county) for the County for each gender in 5-year age groups (beginning with ages 40-44 years old, through 95+). We calculated migration estimates using Census data for 1990 and 2000 and counts of County death from Ohio public use mortality files (Ohio Department of Health, 1990-2000). We "survived" the 1990 County population of each gender and age group by subtracting the deaths from those residing in the county from April 1, 1990 through March 31, 2000. In calculating the deaths occurring to an age group, we adjusted for the group's getting older, or aging, during the decade. We calculated net migration by subtracting this survived population from the 2000 count of the age population (the age group that was 10 years older in 2000 than in 1990). Thus, net migration equals the actual 2000 count minus the survived population (or minus the number of people that would have been in the county had no migration taken place during the decade). The aforementioned set of assumptions, which guided our projection methodology, garnered specific results. If these assumptions were

changed, it would yield different results. In 2003, the Ohio Department of Development produced a series of population projections for each of Ohio's 88 counties. As their research was based on a different set of assumptions, their numbers differ from ours slightly (http://www.odod.state.oh.us/research/).

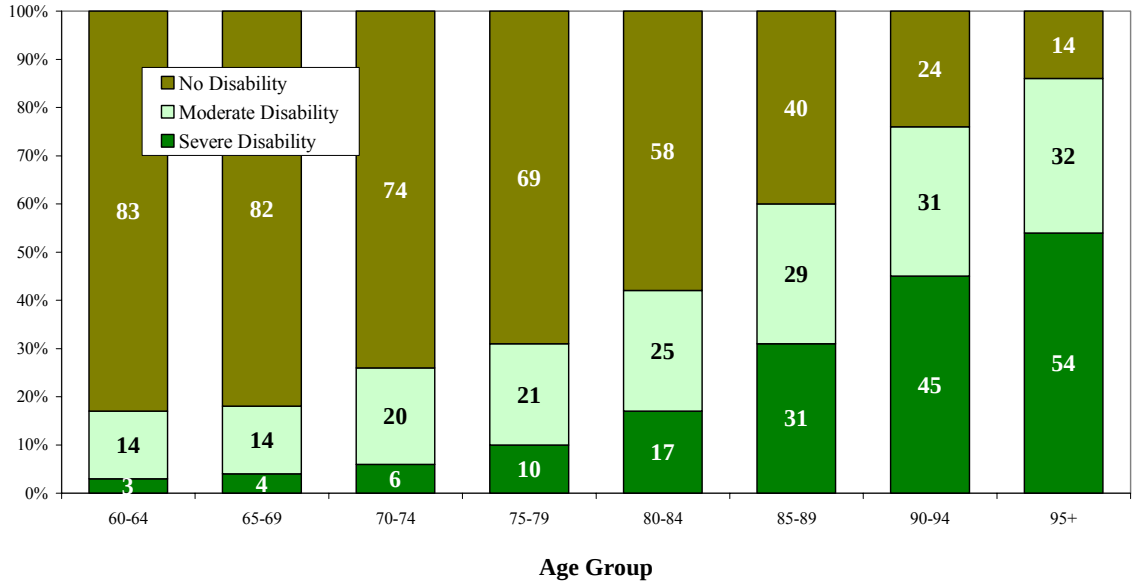
Estimation of Age and Sex Specific Disability Rates for Gender and Age Groups - Disability in this study is defined as a measure of impairment in activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL). Three levels were assigned to this measure: Severe Disability, Moderate Disability, and Little or No Disability. Disability rates for the institutionalized and community based older population were calculated separately, weighted by their respective proportions in the population, and then combined.

The community disability rates were calculated using the community portion of the 1994 National Long Term Care Survey (NLTCS). Institutional disability rates were calculated using the 1995 National Nursing Home Survey (NNHS). These surveys provided information to calculate the disability rate for the 65+ population. As we defined disability, we relied on individual ADL-IADL item scores. Sample participants were identified as either dependent in performing Activities of Daily Living or independent in order to assign disability status to each individual. Two criteria were used in selecting individual ADL or IADL items to include in the disability scale: 1) items must have similar wording, content, and time span in both surveys; and 2) the scale, and the items used in creating the scale, must be as similar as possible to the items used in calculating the disability measure that we created in our earlier studies of projecting disabled older population of Ohio.

We used 2000 Census data on self-care disabilities and the National Health Interview Survey on Disability, 1995: Phase II Adult Followback as a guide to extend the disability rates established for the 65+ population to the 60-64 age group. We are assuming that the proportion of the population that will become disabled in each gender and age group will remain constant from 1995 (the survey dates) to the year 2020. We acknowledge that there are studies that suggest it could be otherwise.

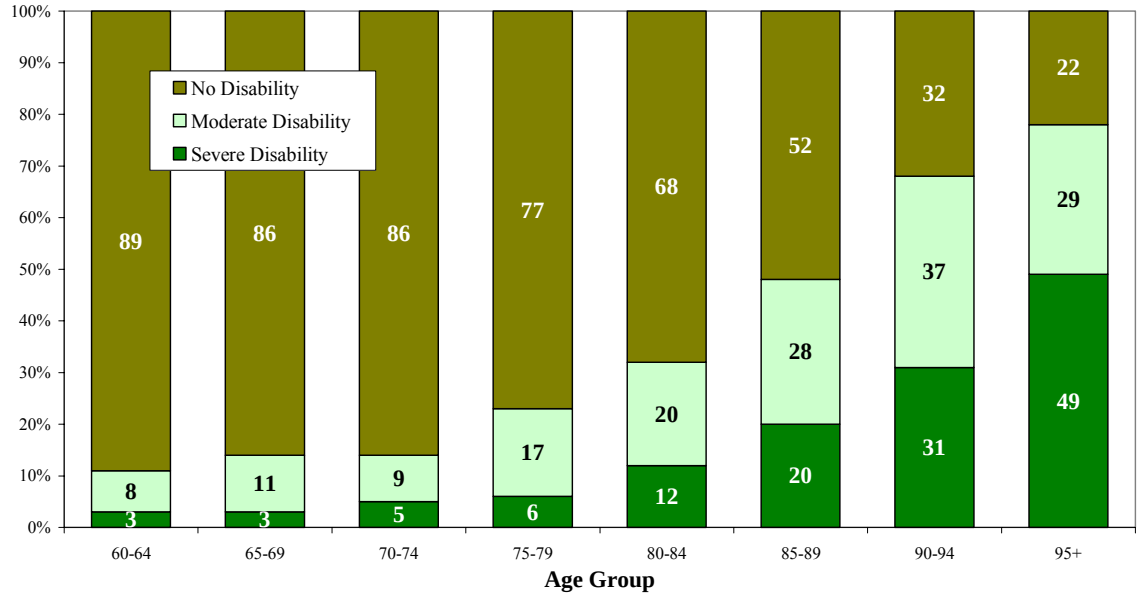
Figures 21 and 22 show the higher rates of severe disability among women of all ages, and the consistent increase in the prevalence of disability with advancing age for both men and women.

Figure 21
Estimated Percentage Distribution of Women by Disability Status and Age, 1995



Source: Mehdizadeh, S.A., Kunkel, S.R., Ritchey, P.N. (2001). *Projections of Ohio's Older Disabled Population: 2015 to 2050* . Oxford, OH: Scripps Gerontology Center, Miami University.

Figure 22
Estimated Percentage Distribution of Men by Disability Status and Age, 1995



Source: Mehdizadeh, S.A., Kunkel, S.R., Ritchey, P.N. (2001). *Projections of Ohio's Older Disabled Population: 2015 to 2050* .

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Appendix

Table 1a
Projections of Total Older Population by Age and Levels of Disability
Hancock County, 2000, 2005, 2010, 2015, 2020

Year	Age Group	Total Population	No Disability	Moderate Disability	Severe Disability
2000*	**60 - 69**	5,285	4,493	628	164
	70 - 79	4,197	3,177	726	294
	80 - 89	2,320	1,289	580	451
	90+	475	109	153	213
	Total Age 60+	12,277	9,068	2,087	1,122
2005	**60 - 69**	5,831	4,963	690	178
	70 - 79	4,008	3,041	691	276
	80 - 89	2,483	1,366	627	490
	90+	536	125	176	235
	Total Age 60+	12,858	9,495	2,184	1,179
2010	**60 - 69**	7,097	6,043	839	215
	70 - 79	4,122	3,139	702	281
	80 - 89	2,439	1,333	617	489
	90+	650	154	214	282
	Total Age 60+	14,308	10,669	2,372	1,267
2015	**60 - 69**	8,398	7,147	994	257
	70 - 79	4,605	3,518	778	309
	80 - 89	2,404	1,321	606	477
	90+	725	170	237	318
	Total Age 60+	16,132	12,156	2,615	1,361
2020	**60 - 69**	9,361	7,967	1,108	286
	70 - 79	5,685	4,354	953	378
	80 - 89	2,554	1,412	642	500
	90+	754	176	248	330
	Total Age 60+	18,354	13,909	2,951	1,494

Source: U.S. Census Bureau, 2000: Public Use Microdata Sample: 5-Percent.
* Year 2000 data are actual population counts, years 2005-2020 are projections.

Table 2a
Projections of the 60+ Female Population by Age Group and Level of Disability
Hancock County

Year	Age Group	Total Population	Population with No Disability	Population with Disability	
				Moderate[a]	Severe[b]
2000	**60-64**	1,459	1,211	207	41
	65-69	1,321	1,088	185	48
	70-74	1,244	926	243	75
	75-79	1,221	832	262	127
	80-84	946	546	236	164
	85-89	573	232	166	175
	90-94	271	65	84	122
	95 +	107	15	34	58
	Total	7,142	4,915	1,417	810

Year	Age Group	Total Population	Population with No Disability	Population with Disability	
				Moderate[a]	Severe[b]
2005	**60-64**	1,649	1,369	234	46
	65-69	1,359	1,120	190	49
	70-74	1,212	902	237	73
	75-79	1,089	742	234	113
	80-84	990	572	247	171
	85-89	632	256	183	193
	90-94	286	69	89	128
	95 +	120	17	39	64
	Total	7,337	5,047	1,453	837

Year	Age Group	Total Population	Population with No Disability	Population with Disability	
				Moderate[a]	Severe[b]
2010	**60-64**	2,123	1,763	302	58
	65-69	1,541	1,270	215	56
	70-74	1,254	934	245	75
	75-79	1,072	730	230	112
	80-84	897	518	223	156
	85-89	678	274	197	207
	90-94	328	79	102	147
	95+	134	19	43	72
	Total	8,027	5,587	1,557	883

Table 2a Continued
Projections of 60+ Female Population by Age Group and Level of Disability
Hancock County

Year	Age Group	Total Population	Population with No Disability	Population with Disability	
				Moderate[a]	Severe[b]
2015	**60-64**	2,335	1,939	332	64
	65-69	1,993	1,642	278	73
	70-74	1,430	1,065	280	85
	75-79	1,118	761	240	117
	80-84	895	517	223	155
	85-89	629	254	182	193
	90-94	365	88	113	164
	95 +	157	22	51	84
	Total	8,922	6,288	1,699	935
Year	**Age Group**	**Total Population**	**Population with No Disability**	**Population with Disability**	
				Moderate[a]	**Severe[b]**
2020	**60-64**	2,597	2,156	369	72
	65-69	2,198	1,811	307	80
	70-74	1,858	1,383	363	112
	75-79	1,285	875	276	134
	80-84	946	546	236	164
	85-89	641	259	186	196
	90-94	350	85	109	156
	95 +	183	26	59	98
	Total	10,058	7,141	1,905	1,012

Source: Authors' projections.

[a] Moderate disability is defined as received help in at least one of the following activities of daily living: eating, transferring in or out of bed or chair, getting to the toilet, dressing, bathing, remaining continent; or in at least two of the following instrumental activities of daily living: walking, shopping, meal preparation, housekeeping, or using transportation.

[b] Severe disability is defined as received help in at least two of the following activities of daily living: eating, transferring in or out of bed or chair, getting to the toilet, dressing, remaining continent, or having cognitive impairment.

Table 3a
Projections of the 60+ Male Population by Age Group and Level of Disability
Hancock County

Year	Age Group	Total Population	Population with No Disability	Population with Disability	
				Moderate[a]	Severe[b]
2000	**60-64**	1,395	1,238	116	41
	65-69	1,110	956	120	34
	70-74	968	835	89	44
	75-79	764	584	132	48
	80-84	575	393	115	67
	85-89	226	118	63	45
	90-94	83	26	31	26
	95 +	14	3	4	7
	Total	5,135	4,153	670	312

Year	Age Group	Total Population	Population with No Disability	Population with Disability	
				Moderate[a]	Severe[b]
2005	**60-64**	1,604	1,424	134	46
	65-69	1,219	1,050	132	37
	70-74	941	812	87	42
	75-79	766	585	133	48
	80-84	543	371	109	63
	85-89	318	167	88	63
	90-94	110	35	42	33
	95 +	20	4	6	10
	Total	5,521	4,448	731	342

Year	Age Group	Total Population	Population with No Disability	Population with Disability	
				Moderate[a]	Severe[b]
2010	**60-64**	2,024	1,796	169	59
	65-69	1,409	1,214	153	42
	70-74	1,042	899	96	47
	75-79	754	576	131	47
	80-84	555	379	111	65
	85-89	309	162	86	61
	90-94	160	50	61	49
	95 +	28	6	8	14
	Total	6,281	5,082	815	384

Table 3a Continued
Projections of 60+ Male Population by Age Group and Level of Disability
Hancock County

Year	Age Group	Total Population	Population with No Disability	Population with Disability	
				Moderate[a]	Severe[b]
2015	**60-64**	2,282	2,025	190	67
	65-69	1,788	1,541	194	53
	70-74	1,213	1,047	112	54
	75-79	844	645	146	53
	80-84	556	380	111	65
	85-89	324	170	90	64
	90-94	161	51	61	49
	95 +	42	9	12	21
	Total	7,210	5,868	916	426
Year	**Age Group**	**Total Population**	**Population with No Disability**	**Population with Disability**	
				Moderate[a]	**Severe[b]**
2020	**60-64**	2,542	2,256	212	74
	65-69	2,024	1,744	220	60
	70-74	1,549	1,337	142	70
	75-79	993	759	172	62
	80-84	633	432	127	74
	85-89	334	175	93	66
	90-94	174	55	66	53
	95 +	47	10	14	23
	Total	8,296	6,768	1,046	482

Source: Authors' projections.

[a] Moderate disability is defined as received help in at least one of the following activities of daily living: eating, transferring in or out of bed or chair, getting to the toilet, dressing, bathing, remaining continent; or in at least two of the following instrumental activities of daily living: walking, shopping, meal preparation, housekeeping, or using transportation.

[b] Severe disability is defined as received help in at least two of the following activities of daily living: eating, transferring in or out of bed or chair, getting to the toilet, dressing, remaining continent, or having cognitive impairment.