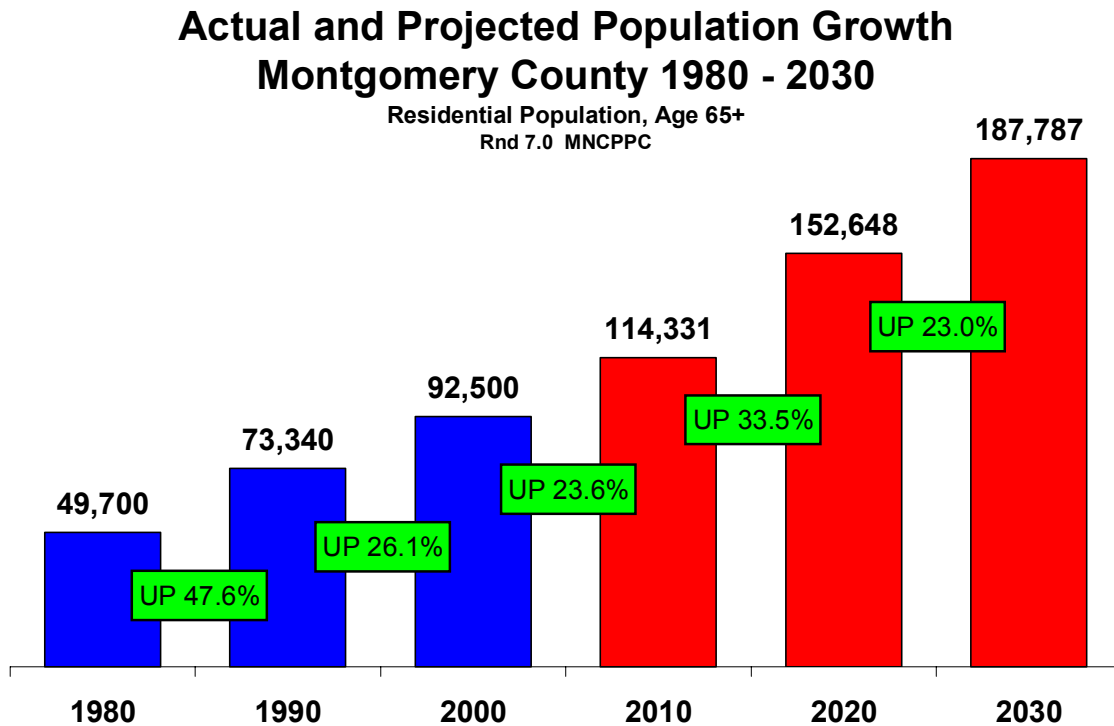# Chapter II

Demographics

Demographic Factors

The most obvious change in the senior population in Montgomery County is the growth in the overall number of individuals age 65 and over. As illustrated in Figure 1, the number of seniors increased by 86% from 1980 (49,700) to 2000 (92,500) and is projected to grow an additional 65% from 2000 to 2020 (152,648).

Figure 1

Actual and Projected Population Growth
Montgomery County 1980 - 2030
Residential Population, Age 65+
Rnd 7.0 MNCPPC

Year	Population	Growth
1980	49,700	UP 47.6%
1990	73,340	UP 26.1%
2000	92,500	UP 23.6%
2010	114,331	UP 33.5%
2020	152,648	UP 23.0%
2030	187,787	

The growth in the senior population in the last two decades occurred as part of the overall growth in the county population, with the number of non-seniors also increasing by 47%. However, projections indicate that in the coming decades the growth rate of the senior population will be almost four times as great as that of non-seniors. Consequently, seniors as a fraction of the overall population will increase dramatically. In 1980, seniors comprised 8.7% of the overall county population. In 2000 that had grown to 10.7%, and by 2020 it is projected to be 14.4%.

Several aspects of this senior population growth are worthy of further examination: composition of senior population, dependency ratio, ethic and racial diversity, limited English Proficiency, and geographical location of seniors within the county.

Composition of Senior Population

One of the tools used by demographers to examine patterns of population change is a graph called a population pyramid. Figure 2 is a population pyramid showing the projected change in Montgomery County's population composition from 2000 to 2020. The inner (lighter) portion of the figure shows the composition of the county's population in 2000. The outer (darker) portion of the figure shows the projected composition in the year 2020.

In 2000, the county had a bulge of individuals in the 35-59 age group, which roughly corresponds to what has been termed the "baby boom". Several features are also notable in 2000: (1) the fewer number of individuals over age 60, (2) the relatively small number of individuals ages 15-29, and (3) another boom in children ages 0-14.
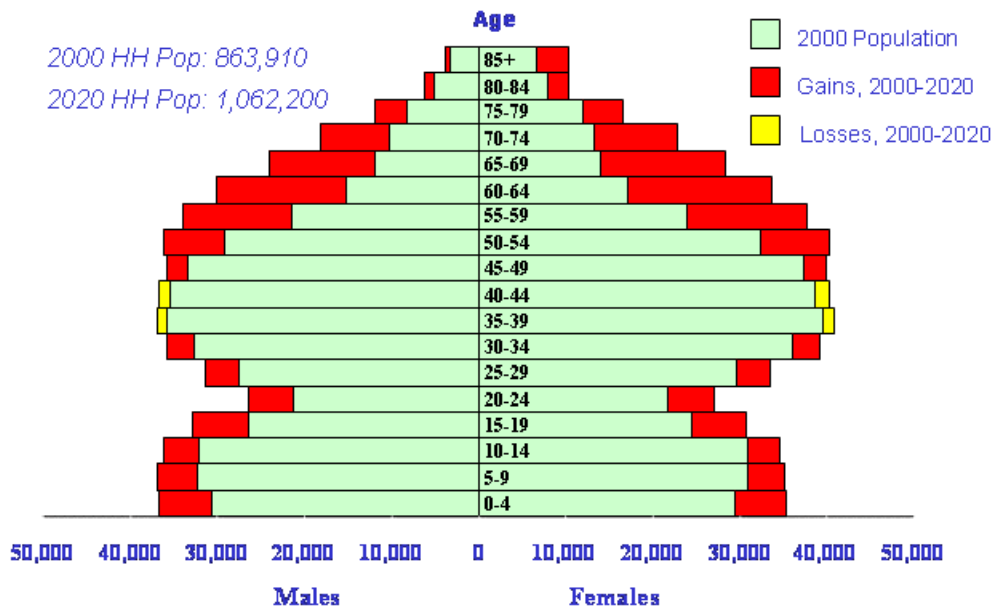
Looking ahead to 2020, projections indicate several patterns that could have policy implications. First, a significant growth in individuals age 55-79, is projected with the greatest growth among those termed the "young-old" (ages 65-79). Second, marked growth in young people is projected, the majority of whom will be members of racial and ethnic minority groups. Third, the number of persons age 35-44 is projected to decline.

The future decline in the number of persons age 35-44 in the county has significant implications for seniors with chronic disabilities. Typically seniors with chronic disabilities turn to their spouses, adult children and paid caregivers to assist them

in remaining independent. However, the available population of working age adults be smaller than today. Frail seniors will have difficulty obtaining the care they will need.

Figure 2

2000 & 2020 Household Population
Montgomery County, MD

2000 HH Pop: 863,910
2020 HH Pop: 1,062,200

| 2000 Population |
| Gains, 2000-2020 |
| Losses, 2000-2020 |

Age: 85+, 80-84, 75-79, 70-74, 65-69, 60-64, 55-59, 50-54, 45-49, 40-44, 35-39, 30-34, 25-29, 20-24, 15-19, 10-14, 5-9, 0-4

50,000 40,000 30,000 20,000 10,000 0 10,000 20,000 30,000 40,000 50,000

Males   Females

Source: MCDPP, Research & Technology Center, Demographic Model, Round 7.0 Forecast

Dependency Ratio

The "dependency ratio" is a statistic published by the Federal government to illustrate the ratio of those typically receiving retirement benefits relative to those active in the work force. The statistic is controversial in that it obscures the fact that some individuals over age 65 are still employed, and that seniors contribute in many significant ways to the community and are not necessarily "dependent".

Nonetheless, as part of a larger examination of trends and patterns it provides insight into patterns of change. Figure 3 shows the dependency ratio for Montgomery County based upon projections developed by the Maryland National Capital Park and Planning Commission (MNCPPC, Round 7.0). Projections indicate that the dependency ratio, or number of working age adults age 20-64 per senior, will decline from 5.2 in 2000 to 3.8 in 2020, with the most significant decline occurring after 2010.

Figure 3

Dependency Ratio, Montgomery County
Ratio of Working Age Adults (20-64) per Senior
Projection, Rd 7.0 MNCPPC
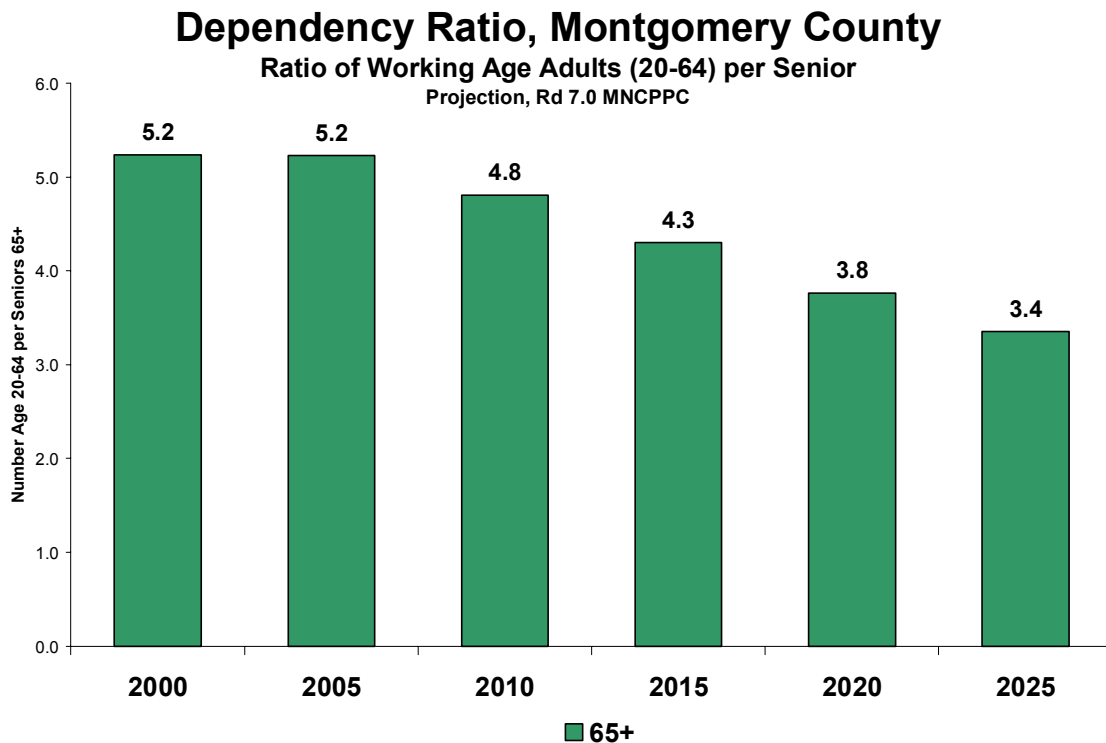
Racial and Ethnic Composition

Seniors in Montgomery County are less racially and ethnically diverse than the overall county population. Figures 4 and 5 show the racial and ethnic composition of the County for people age 65 and over (Figure 4) and for individuals of all ages (Figure 5). The senior population is largely White, Non-Hispanic (80%), with African-American's

and Asian-Pacific Islanders comprising 8% each, and Hispanics 4%. In contrast, the

comparable figures for the county as a whole are 61% White, Non-Hispanic, 15%

African-American, 12% Asian-Pacific Islander, and 12% Hispanic. A more marked

contrast emerges when seniors are compared with the school age population. In the

2004-2005 academic year, Montgomery County Public Schools reported that White,

Non-Hispanics represented 43.3% of all students. African-American's comprised 22.6%,

Asian-Pacific Islanders 14.4%, and Hispanics 19.4%.

Figure 4

**Race/Ethnicity of Montgomery County
2000 Census, Age 65 and Over**

AFRICAN-
AMERICAN
8%

ASIAN
8%

HISPANIC
4%

WHITE (NON-
HISPANIC)
80%
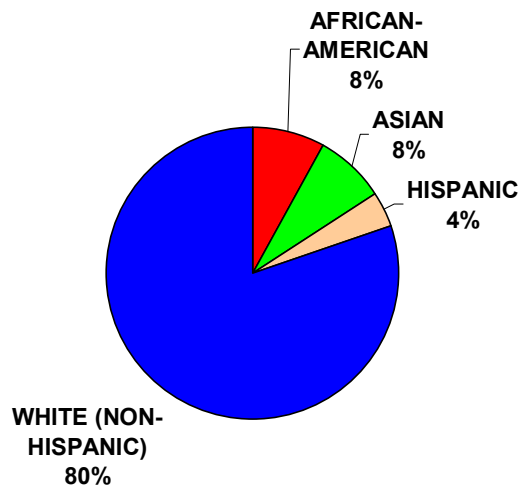
■ AFRICAN-AMERICAN ■ ASIAN □ HISPANIC ■ WHITE (NON-HISPANIC)

Formal projections of the racial and ethnic composition of the senior population

have not been completed for future years, but the following assumptions seem clear:

One, the senior population is likely to become increasingly diverse, moving closer to the

overall diversity of the county population. Second, despite the increasing diversity of

seniors, racial and ethic differences between the young and the old will persist.

Figure 5

**Race/Ethnicity of Montgomery County
2000 Census, All Ages**

AFRICAN-
AMERICAN
15%

ASIAN
12%

WHITE (NON-
HISPANIC)
61%

HISPANIC
12%

■ AFRICAN-AMERICAN ■ ASIAN □ HISPANIC ■ WHITE (NON-HISPANIC)
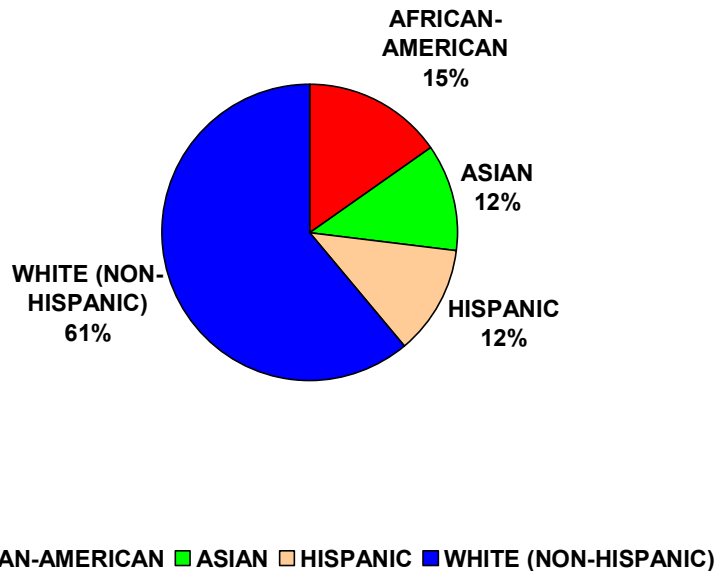
Limited English Proficiency

Limited English Proficiency (LEP) is an issue that has been given increasing

attention. The capacity of individuals to function at optimal levels, such as securing

needed services, is often dependent on the capacity to communicate in English.

Individuals who speak English "not well" or "not at all" are defined as having LEP. Data

from the 2000 Census indicates that 6,920 individuals age 65 and over met LEP criteria,

or slightly more than 7% of all seniors. Of the 6,920 LEP seniors, 5,366 (77.5%) were

linguistically isolated, meaning that no other household member spoke English. The

largest language groups with LEP status were Hispanic at 1,775; followed by various dialects of Chinese at 1,320; and then Russian (595), Korean (535), Persian (505) and Vietnamese (445).

LEP status is more concentrated among Chinese seniors than among Hispanic seniors. Among individuals that speak a language other than English at home, 7% of Spanish LEP individuals were seniors compared to 27% among Chinese. It is important to note that while the Spanish LEP population is currently concentrated among non-seniors, as this group ages in place the number of Spanish speaking LEP seniors in future decades will increase.

Geographical location of seniors

Location of residence influences access to services by seniors. Distance, ease of transportation, and the lack of centralized services are significant barriers. Figure 6 is a geographic map of the senior population derived from 2000 Census data. The map shows that the majority of the senior population is concentrated in the southern portion of the county, with high urban concentrations in downtown Silver Spring, Bethesda, Gaithersburg, and Leisure World. Nationally, seniors have expressed a strong preference to "age in place" in their homes. Consequently, the senior population in 2000 largely reflects two trends: (1) the majority of seniors are aging in place in homes they purchased years ago, and (2) a growing minority of seniors moving to retirement communities such as Leisure World, Riderwood (Silver Spring) and Asbury (Gaithersburg).
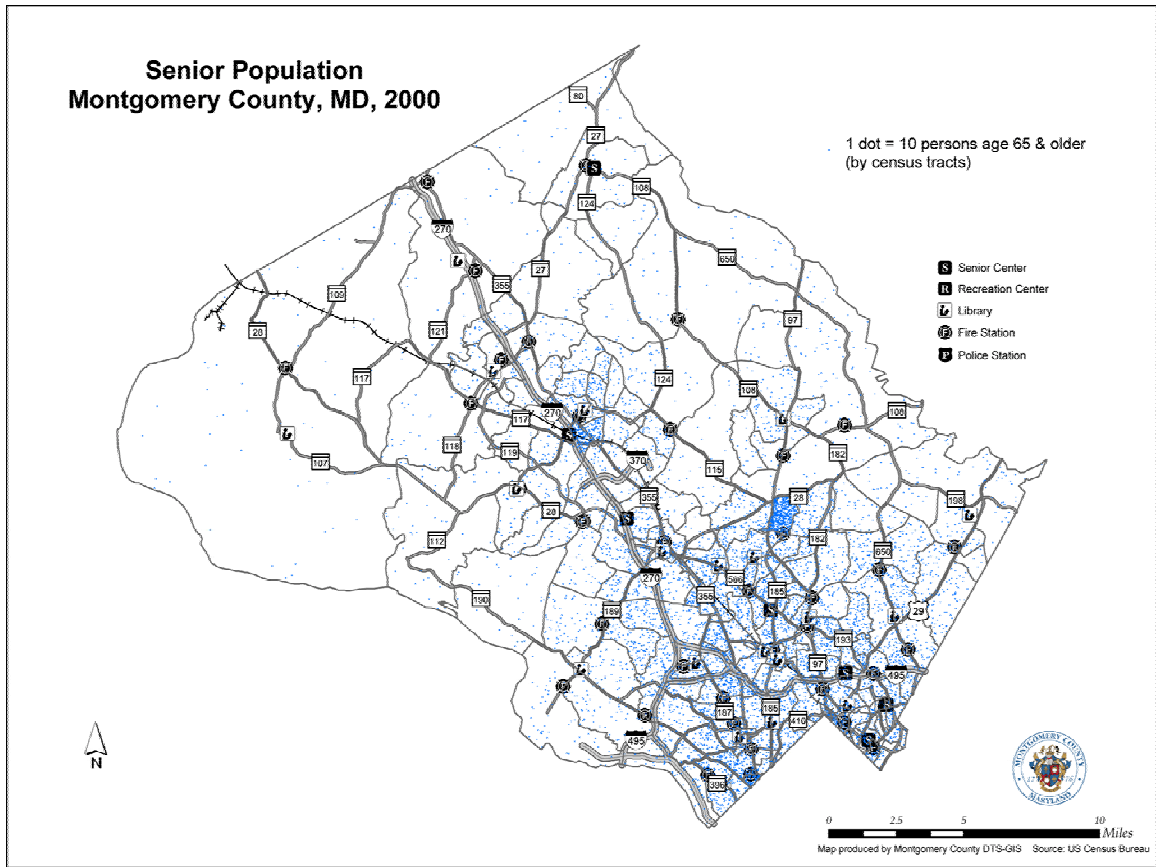
Figure 6

Figure 7 shows the projected geographic distribution for seniors in 2030. This map

shows two marked trends: (1) the overall growth in the senior population as illustrated

by the greater number and density of data points, and (2) that the senior population is

projected to be dispersed throughout the county. Seniors in the year 2030 are likely to be

aging in place in homes purchased in more recent years, reflecting greater suburban

sprawl. Those seniors with diminished capacity to drive or get around independently, will

be at risk of being isolated in single family homes in suburban communities.

Figure 7
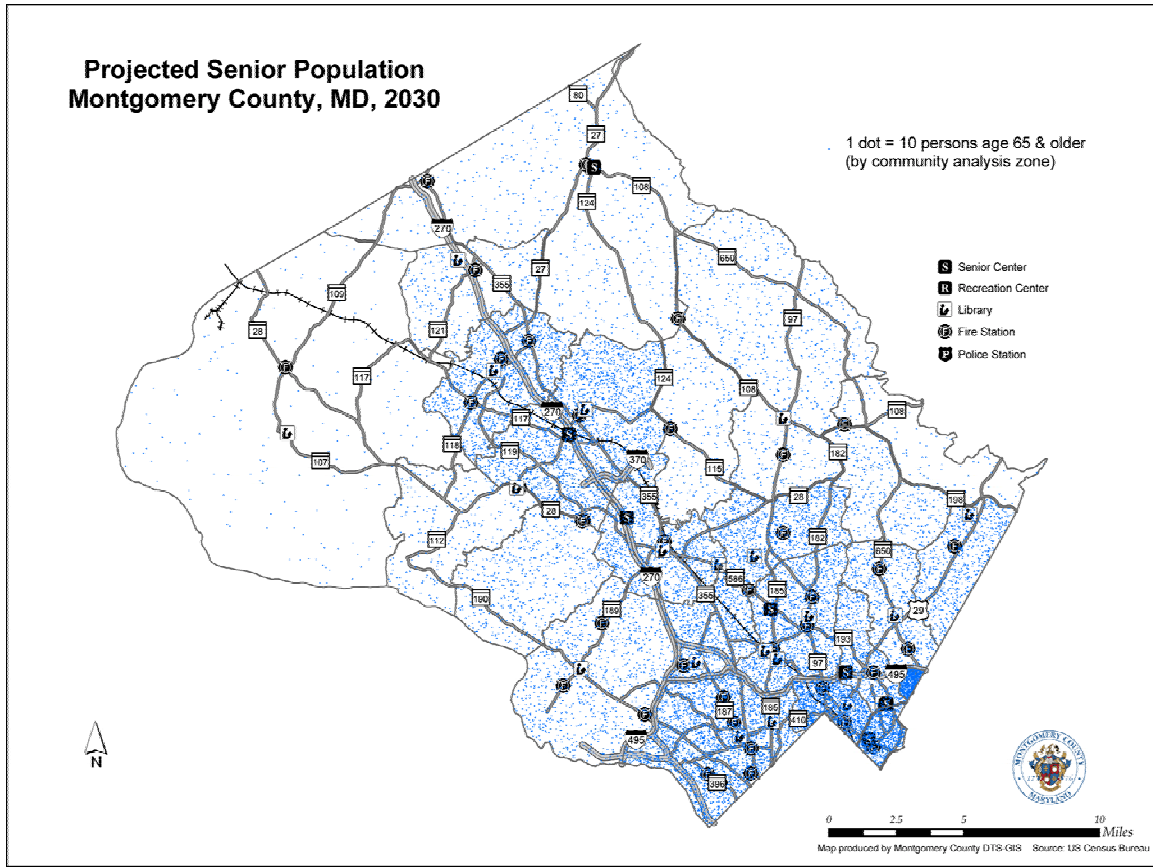
Living Situation

The prevalence of seniors living alone is relevant to examining risk factors for

independence due to the fact that research indicates that living alone is correlated with

lower income, diminished health status, and lower availability of caregivers. Census data

from 2000 indicates that among seniors living independently in the community, women

are almost three times as likely to live alone as men (36.4% vs. 13.9%).

Economic Factors

The availability of economic resources (income and assets) is a critical factor for

seniors influencing their ability to acquire goods and services to assist them to remain

healthy and independent in the community. Census data indicates that while many

seniors are financially comfortable, there is significant variability in income which cuts

across age, gender, disability status, race and ethnicity. While many seniors are no longer

paying mortgages, their incomes are fixed and they often do not possess sufficient

reserves to meet emergencies.

Figure 8 shows total household income for seniors in Montgomery County where

the head of household is age 65 or older. The figure illustrates that a majority of senior

households have annual incomes in excess of $50,000. However, the figure also displays

that there is tremendous variability in level of income among senior residents.   For

example, among those 85 and over, 33.3% have incomes over $80,000, - - while 22.5%

have incomes below $25,000 (not shown in figure).

Figure 8

Senior Household Income

2003 Census Update Survey; Montgomery County
Research & Technology Center, Dept. of Park & Planning, M-NCPPC (12/04)
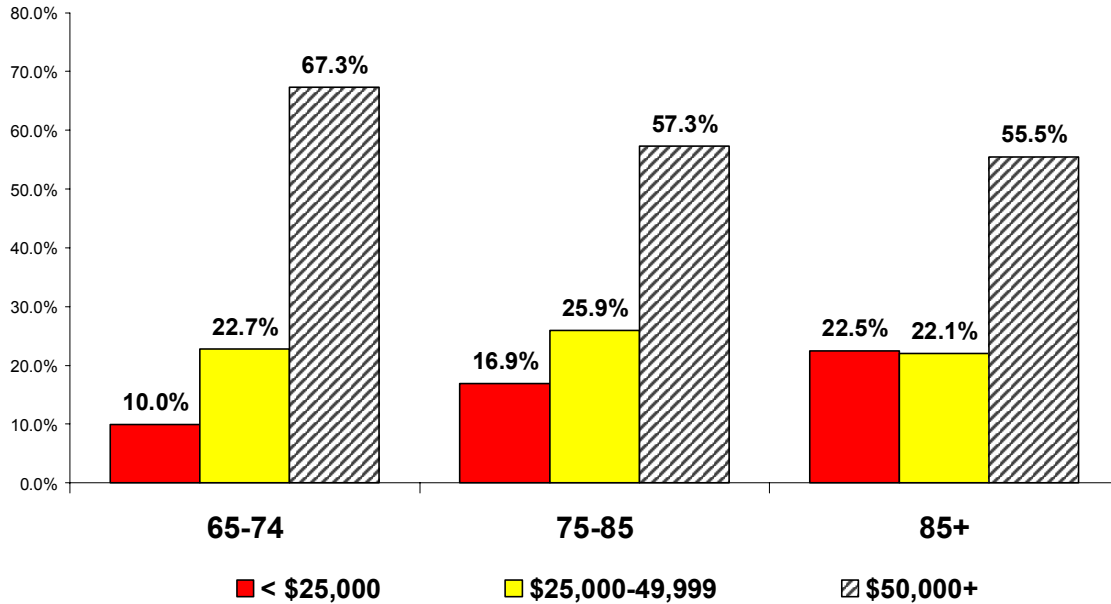
Within this economic framework three issues emerge that benefit from further analysis. One, what level of household income is sufficient for a senior to remain self-sufficient in Montgomery County? Two, how does income among seniors vary by race and ethnicity, gender and disability status? Three, how does income vary by homeowner vs. renter?

Income Self-Sufficiency

Federal poverty line (FPL) guidelines in 2006 stated that for a family of one, "poverty" was an income less than 9,800. Poverty for a household of two was an income less than 13,200. FPL has been widely criticized in recent decades as being an inadequate index of income required to truly be self-sufficient. It is a reasonable

assumption, given the cost of living in Montgomery County, that FPL is not a valid index of income self-sufficiency for seniors. The Self-Sufficiency Standard for a family of one in Montgomery County in 2004 (developed by the Community Action Board) was $25, 961.

Using $25,000 in household income as a self-sufficiently threshold for Montgomery County, Census data shows considerable variation by both age and race/ethnicity. While 22.6% (26,268) of senior headed households in the county have incomes below $25,000, the numbers affected vary by age and ethnicity, from a low of 6.5% for White, Non-Hispanics age 55-64, up to 48.4% for Hispanics age 75 and over.

Figure 9 illustrates some of the divisions by age and race/ethnicity. The percentage of households with income below $25,000 increases with age across all racial/ethnic groups. This finding is associated with increases in the number of female only households, which typically have lower incomes; and with prior cohorts of seniors who had lower educational attainment and incomes. Figure 9 also illustrates that income self-sufficiency varies by race and ethnicity. White, Non-Hispanics have the lowest level of income insufficiency. Among household heads age 65-74, African-Americans are twice as likely as White, Non-Hispanics to have income below $25,000. Among household heads age 75 and over, Asian-Pacific Islanders and Hispanics are almost 90% more likely to have incomes below $25,000.

Figure 9

Percent Households with Income Below $25,000
2000 Census, Montgomery County

Age of Head of Household

55-64   65-74   75+
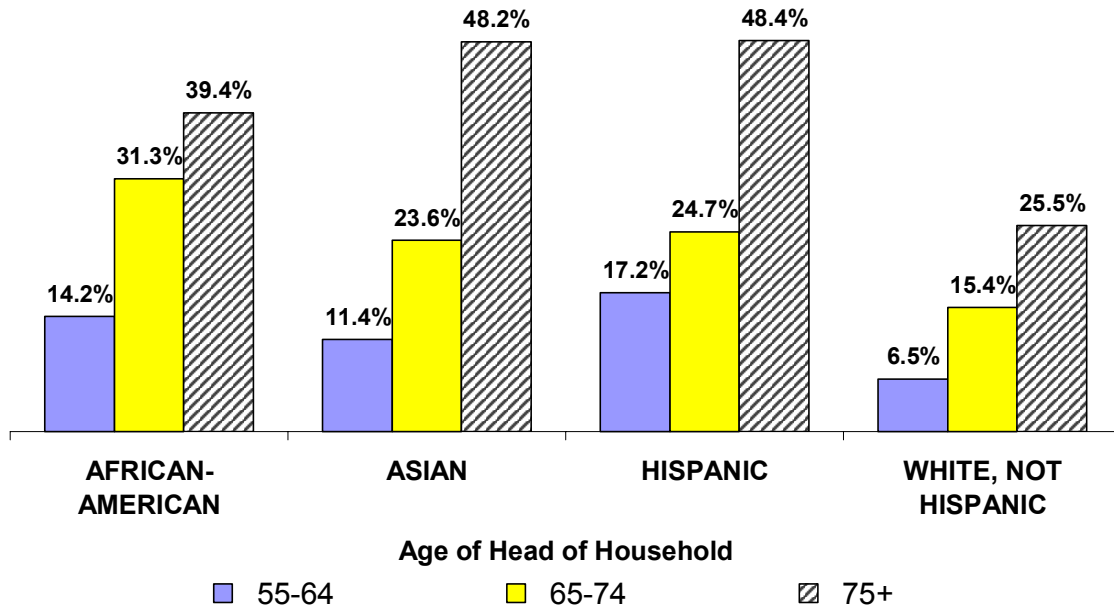
Income by Gender and Disability

Census data also indicate that income varies by gender and disability status. For this analysis Federal Poverty Line (FPL) is used as a household income threshold due to unavailability of detailed income data by disability status. Among Montgomery County seniors, 5.8% have incomes below FPL, with disabled seniors almost twice as likely to be in poverty as those not reporting a disability (8.7% vs. 4.5%).

Figure 10 illustrates that poverty levels are higher not only for those with disabilities but also for women relative to men. For males age 65 and over the total poverty rate using FPL is 4.2%, with 3.5% for men without disabilities vs. 5.8% for men with disabilities. For females age 65 and over, the total poverty rate is 6.0%, with 5.3% for women without disabilities and 10.4% for women with disabilities.

Figure 10

Percent Below Federal Poverty Level by
Gender and Disability Status
Montgomery County (2000 Census, SF3_PCT34)
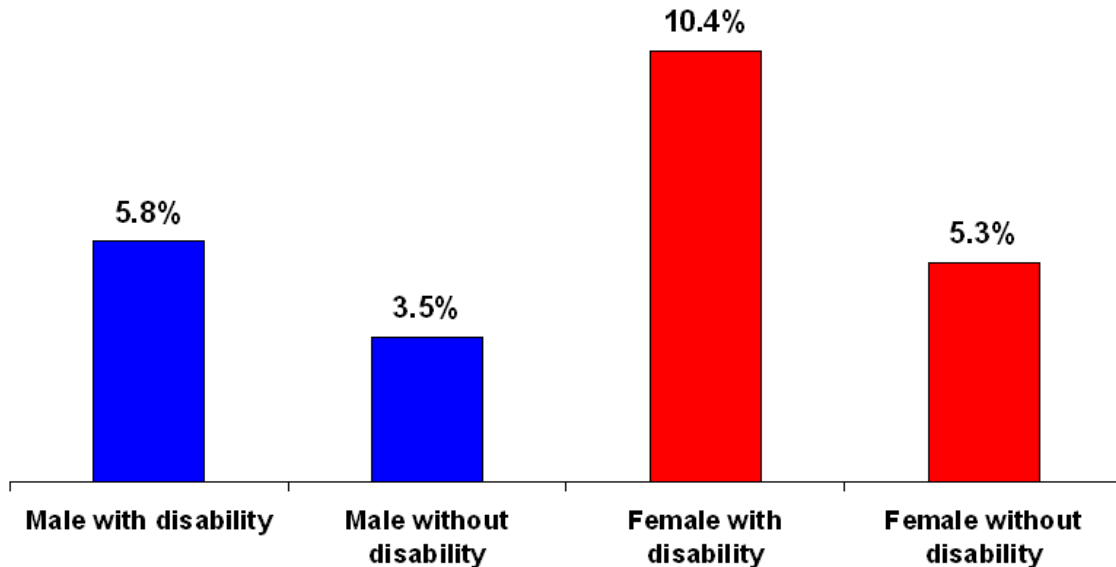
This data illustrate an alarming fact. Those individuals who are most likely to need assistance to remain independent (i.e., elderly/ disabled) are those least able to pay for the assistance they need.

Homeowners vs. Renters

A principle factor influencing the self-sufficiency index for Montgomery County is the high cost of housing. One index that relates cost of housing to self-sufficiency is the percentage of income devoted to housing. The Census Bureau uses 35% of total income devoted to housing as the threshold. Expenditures of a larger fraction of total income on housing would likely leave individuals vulnerable to insufficient funds for food, medical care, transportation or other critical needs.

Figure 11

Paying 35% or More of Income for Housing
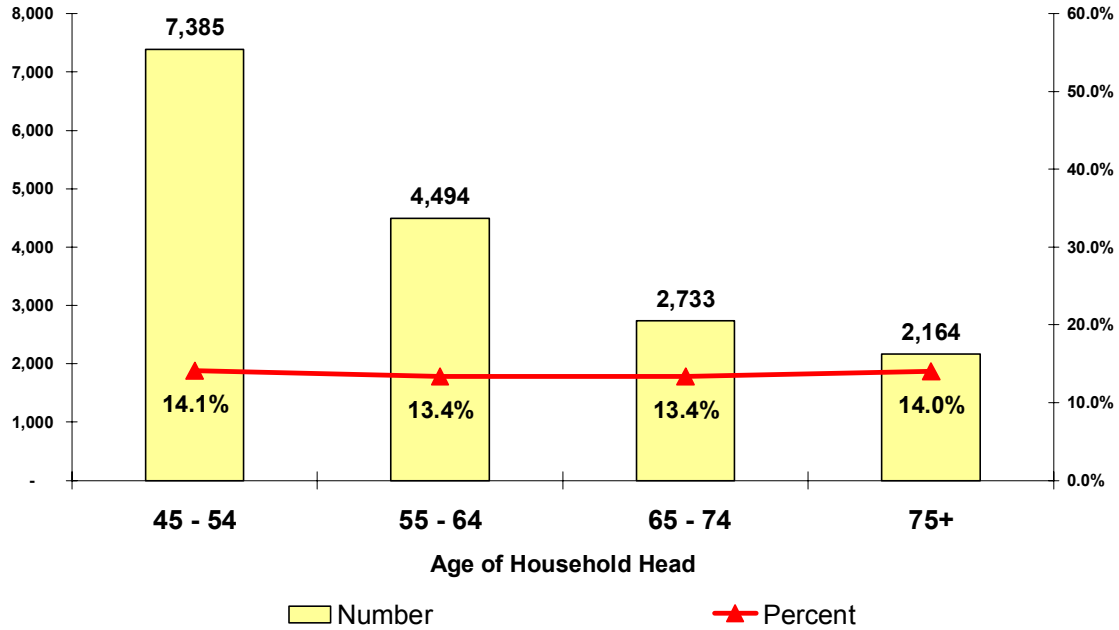### Homeowners, Montgomery County (2000 Census)

Figure 11 shows the number and percentage of senior headed homeowner households that spend 35% or more of their income towards housing. The graph shows that the percentage of such households spending this proportion of income on housing stays relatively constant across age groups (roughly 14%). The total number of such households decline (4,494 in 55-64 age group vs. 2,164 in 75+ age group) probably as a result of mortality and voluntary choices to move into supported care environments.

Figure 12

Paying 35% or More of Income for Housing
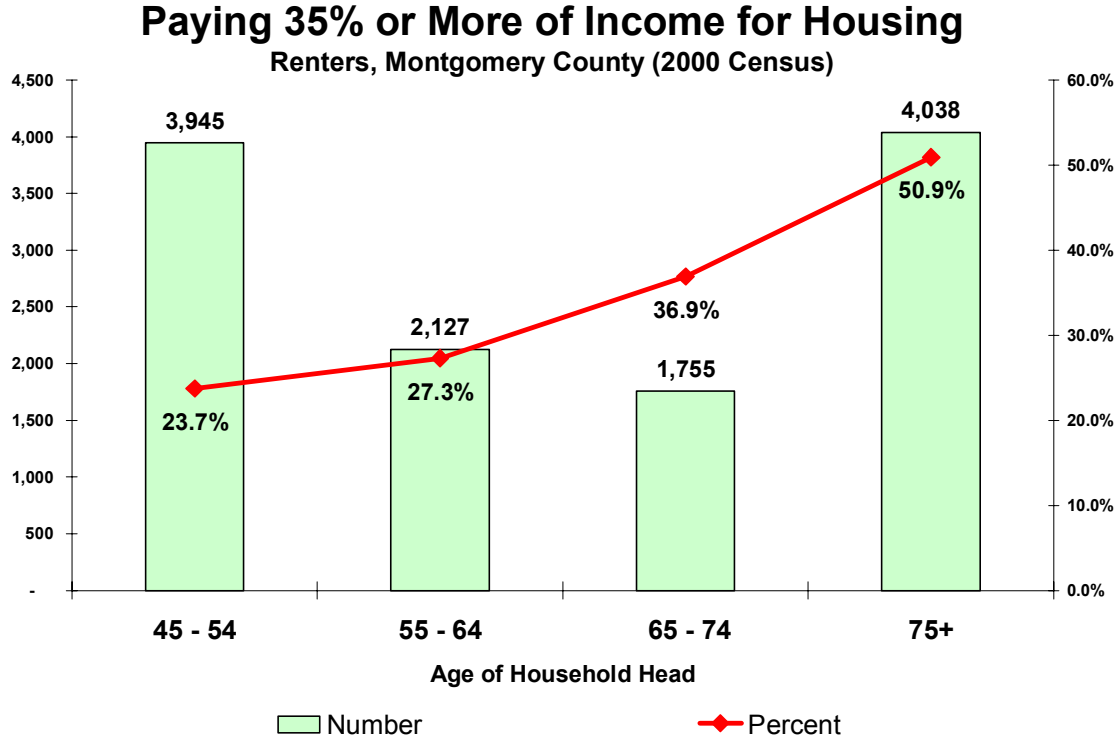### Renters, Montgomery County (2000 Census)

Figure 12 shows the number and percentage of senior headed renter households that spend 35% or more of their income towards housing. In contrast to the graph for homeowners, the percentage of renters paying 35% or more of their income for housing increases markedly by age. For example, while 27.3% of renters age 55-64 fall into this category, it climbs to 50.9% for renters age 75 and over. This trend is likely a result of an interaction of lower incomes among older seniors, and higher rental fees for apartments and supported care environments.

Health Status

While the majority of seniors are healthy and independent, rates of chronic disability do increase with age. From a public policy perspective, disability rates are

important indices of need and consumption of medical and human services. The 2000 Census found that 32.7% of seniors self-reported one or more disabilities. Disability rates also increased markedly with age (21.7% for those 65-74 vs. 45.3% for those age 75+). Women reported slightly more disabilities in each age category (e.g., 23.0% vs. 20.1% among individuals age 65-74 and 47.5% vs. 41.7% for those age 75 and over).

Projections of the number and proportion of individuals with disabilities in the future is a subject of debate.   Manton, Gu, and Lamb (2006) in a recent issue of the Proceeding of the National Academy of Sciences stated that national data indicates that disability rates are declining at an accelerating rate; with 2% annual decline of rates being a reasonable assumption. Earlier estimates of the team led by Manton had assumed disability rates declining by 1.1% annually. Other researchers have interpreted the same data using different assumptions, and have proposed that disability rates may not be declining in a significant way at all, and that the emerging obesity epidemic may actually lead to increased rates of disability.

For the purpose of strategic planning in Montgomery County, the three most plausible scenarios are represented in Figure 13. They are: (1) no decline in disability rates due to health care improvements offset by obesity, (2) 1.1% annual decline in disability rate, and (3) 2.0% annual decline in disability rate. In the most optimistic scenario in which disability rates decline at two percent annually, the number of seniors with disabilities in Montgomery County would remain relatively stable (increase 11%). However, the other two scenarios presented lead to the prediction of increases in the total number of disabled seniors of 103% and 46% respectively, between 2000 and 2030.
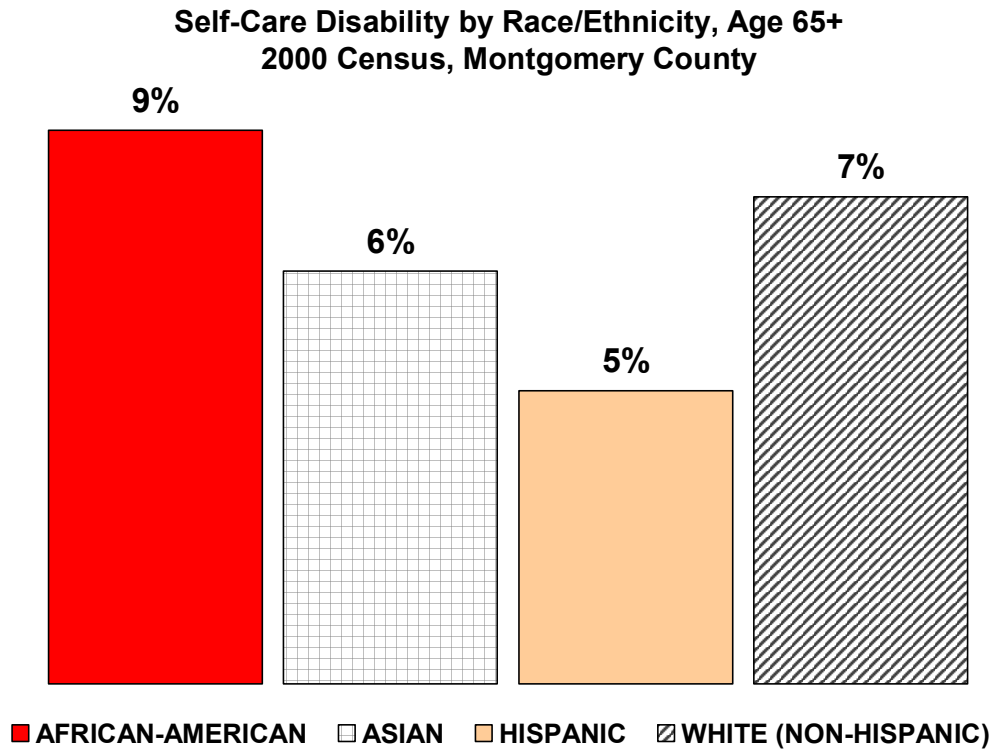
Figure 13

Alternative Projections of Disabled Seniors in Montgomery County

- - ◆ - Disability rate declines 2% annually   ─■─ Disability rate declines 1.1% annually
━▲━ Disability rate holds steady
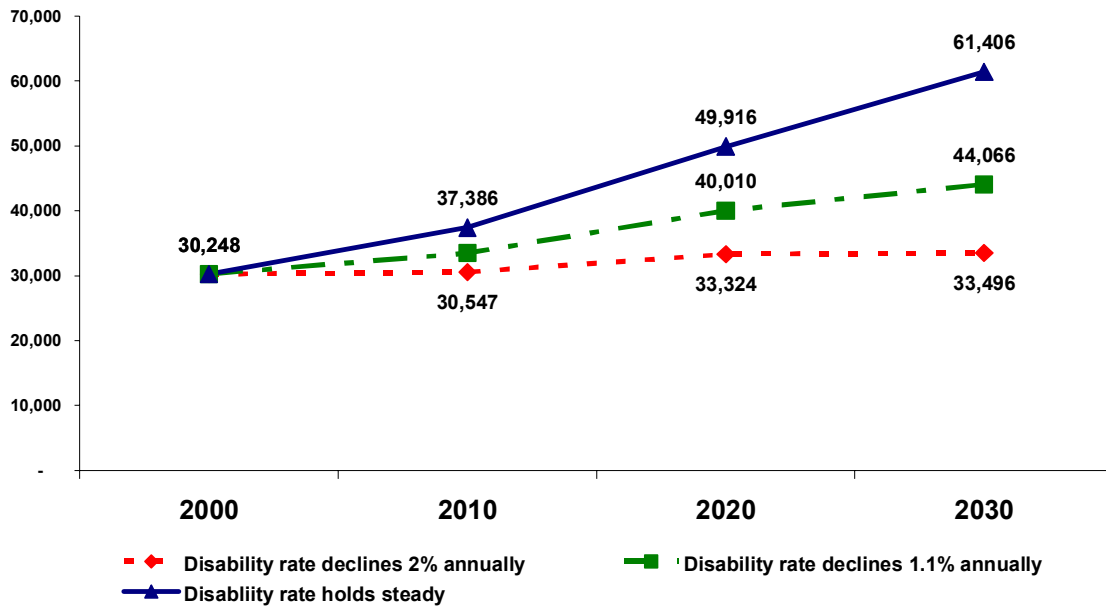
A domain of disability that is of particular importance to seniors in maintaining their autonomy is self-care disability. An examination of 2000 Census data indicates that rates of self-care disability differs by age and gender as well as racial and ethnic groups. Data from the 2000 Census showed several trends. In relation to age, disability rates increase significantly with age. Among seniors age 65-74 disability rates for females and males were comparably low (3.3% and 3.1% respectively). As seniors age into the 75 and over category, self-care disability rates increase markedly with women almost half again as likely to have a self-care disability as men (13.9% vs. 9.2%).

Self-care disability rates also differ by racial and ethnic group. Figure 14 illustrates that among seniors age 65 and over, African-American's (9%) are the most likely group to report self-care disability, followed by White, Non-Hispanics (7%), Asian-Pacific Islanders (6%) and Hispanics (5%).

Figure 14

**Self-Care Disability by Race/Ethnicity, Age 65+
2000 Census, Montgomery County**

■ AFRICAN-AMERICAN □ ASIAN □ HISPANIC ▨ WHITE (NON-HISPANIC)

Cognitive Impairment

An issue of critical concern for seniors, family members, and the community at large, is the issue of dementia and cognitive impairment. In addition to the debilitating effects it can have on individual victims, the burden faced by caregivers can have significant impact on their quality of life. As medical care has advanced, allowing people to live to older and older ages, society is facing an epidemic of individuals with Alzheimer's and related dementias.

Excluding individuals in protected living situations, such as nursing homes and group homes, it is estimated that in 2000 there were approximately 11,600 seniors in the county with moderate to severe cognitive impairment (see Figure 15). Using national prevalence rates by age and gender, it is estimated that by the year 2030 this number will

increase by 94% to over 22,500. This projection is alarming in itself, but the actual

situation may be even more difficult. First, this estimate does not include the growing

number of seniors with dementia who will be residing in nursing homes or other

institutional settings. The Alzheimer's Association estimates that almost three out of 10

people with Alzheimer's disease are in institutional settings, thus the total number of

individuals with moderate to severe cognitive impairment in 2000 is around 15,000, and

estimated to increase to around 32,000 by the year 2030.   Second, as the number of

seniors with dementia increase, the number of adults age 35-44 available to provide

formal and informal care will actually be declining.

Figure 15[1]

INCREASE IN SENIORS WITH DEMENTIA
Projected Non-Institutionalized Individuals with
Cognitive Impairment Age 65+, Montgomery County

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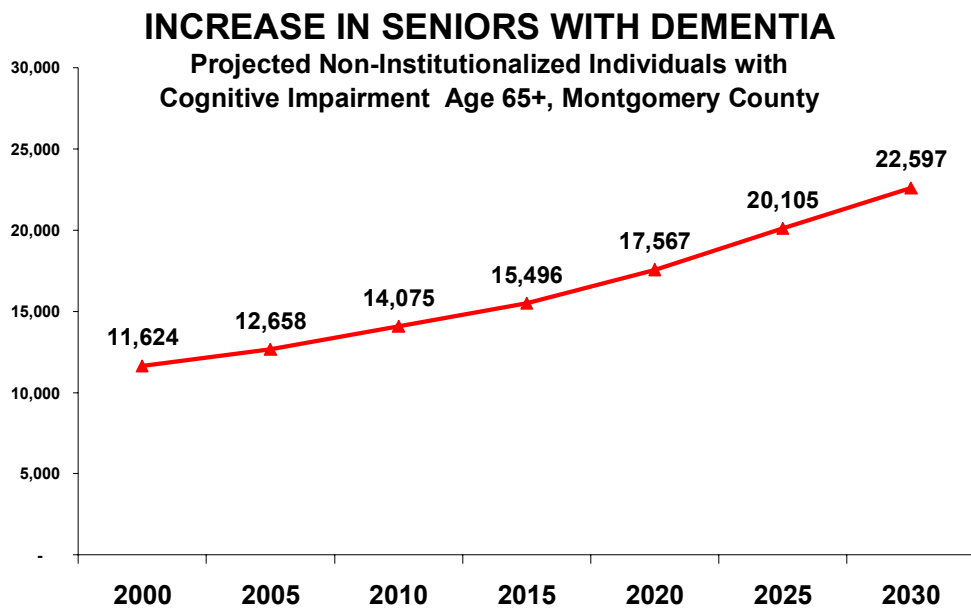
[1] Slightly less than 3 out of 10 people with Alzheimer's disease live in institutional settings. Alzheimer's Association Fact Sheet.

Summary

Montgomery County, like the rest of the United States, is projected to experience a significant growth in its senior population. By the year 2020, the number of senior's will more than double in the County compared to the year 2000. The senior population is currently less diverse than the County population overall (80% White non-Hispanic vs. 61% for overall population). Projections indicate that over time the senior population will become more diverse, but will remain less diverse than the non-senior population.

A majority of seniors will be healthy and active (recent data from the National Health Interview Survey indicates that even amongst those 85 years of age and over, 65% rated their health as "good" to "excellent"). Over the last several decades the health of seniors has improved due to improvement in healthcare and changes in lifestyle behaviors (e.g., reduction in smoking). Some researchers predict that over the next several decades the health of the senior population will continue to improve, others are more cautious in this regard given the increase in obesity in our society. Even in the best case scenario of rapidly improving health status, the absolute number of seniors with physical disabilities will increase due to the magnitude of the demographic wave.

In the case of Alzheimer's and related dementia's, the number of people with significant cognitive impairment has increased more rapidly than the senior population due to improvements in healthcare that allow people to survive for longer periods with chronic illnesses. Future projections indicate that the number of seniors residing in the community (excluding those in institutions) will double by the year 2030.

As a result of the decline in the birthrate after the baby boom generation, as well as societal changes (i.e., higher divorce rate, more women in the workforce, greater mobility), the number of informal caregivers who will be available to assist seniors if they develop physical or cognitive impairments will be declining. While national studies indicate that the median income of seniors will increase over the next two decades, the number of seniors in poverty is also projected to increase.

Montgomery County, when planning for its future, needs to recognize that the future senior population will be: larger, more diverse, have larger numbers of seniors with physical and cognitive disabilities, and fewer informal resources with which to address these hardships.