

For demonstration only

Module 4:

*U.S. Population
Structure:
An Aging America*

Draft

The Teaching Modules on Aging

www.asaging.org/nchs

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Module 4

U.S. Population Structure: An Aging America

I. Demographics of the Older Population

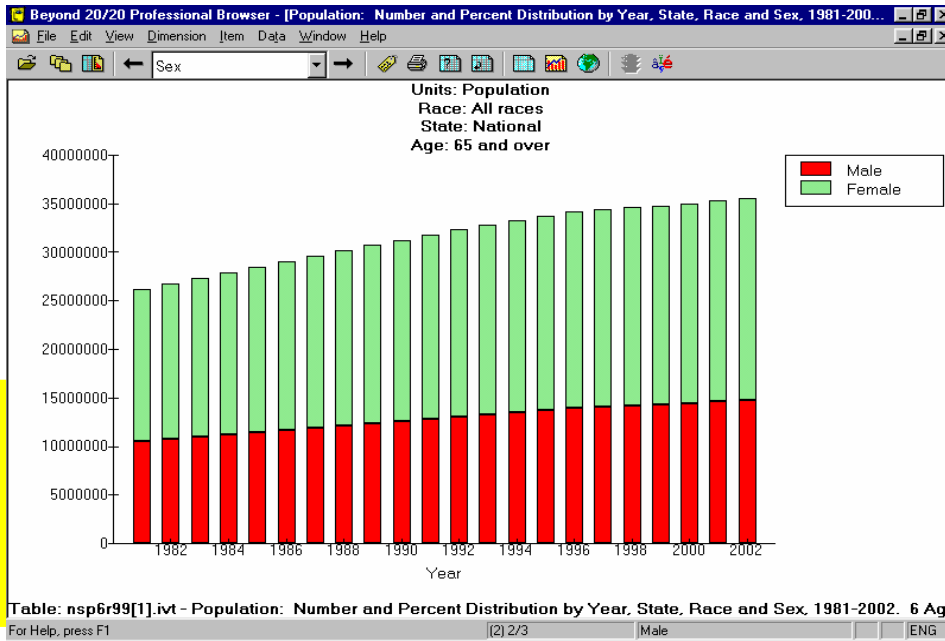
How has the population structure of the United States changed over the last quarter century? One of the most dramatic changes is the growing number of older persons in the population, both in absolute numbers and in the percentage of the total population they represent. Simply put, more Americans are older than ever before. This module examines the demographic trends of the older population (65 years and older). Most of the material will focus on working with the National Center for Health Statistics' Data Warehouse on Trends in Health and Aging and the software *Beyond 20/20*. Information on both can be found in the accompanying Tutorial on Using *Beyond 20/20*. Please refer to the tutorial if you are uncertain how to perform a given task. New and additional instructions specific to this module are explained in detail below.

Before beginning this module, load the CD-ROM from the National Center for Health Statistics or go to the NCHS "Trends in Health and Aging" website, www.cdc.gov/nchs/agingact.htm, then click on the Data Warehouse.

A. America Goes Gray

The United States now has one of the older populations in the world and ages that were once considered rare are now commonplace. According to the 2000 Census, the United States population is older than it has ever been. This graying of America occurred gradually over the latter half of the twentieth century and it will continue for much of the first half of the 21st century. This section examines both the absolute and relative increase in the size of the elderly population.

The graying trend is evident by looking at population changes over just the last 20 years, as well as by looking at the last 50 years. You can examine the trend by finding an appropriate table at the NCHS website or by using the Data Warehouse on Trends in Health and Aging CD-ROM. For this example, we will use the table titled "Population: Number and Percent Distribution by Year, State, Race and Sex, 1981-2002. 6 Age Groups," by opening the "Resident Population, Nation and State" folder, then the "Age, Sex and Race" folder.



Begin by making a chart showing the increase in population of persons age 65 and older since 1981.

- Change the row dimension to **Year** by clicking and holding the left mouse button on the **Year** dimension and dragging the cursor over the current row dimension (**Age**).
- Remove **Race** as a column dimension by clicking and holding the left mouse button on the **Race** label and moving the cursor back up to the Dimension bar.
- Change the **Units** dimension to **Units:Population** by clicking on the **Units** dimension cell so that it is highlighted and appears in the Active Dimension Box. Use the left or right arrow to select **Population**.
- Use the same procedure to then change the **Age** dimension to **65 and over**.
- Highlight the rows for **Male** and **Female** by clicking and holding as you drag the cursor over both labels.
- Click on the **Display Chart** icon in the toolbar. Right click anywhere on the chart to access **Chart Options** and change the chart type to a stacked bar. You can also double-click on the line of the vertical axis to change the scale of the axis.

The chart clearly shows that the U.S. population age 65 and over has grown year after year, with the female portion of that population dominating the group. During this 20 year period, the elderly population increased by about 9.4 million persons. But a more interesting question is whether or not this age segment is growing more rapidly than the nation as a whole.

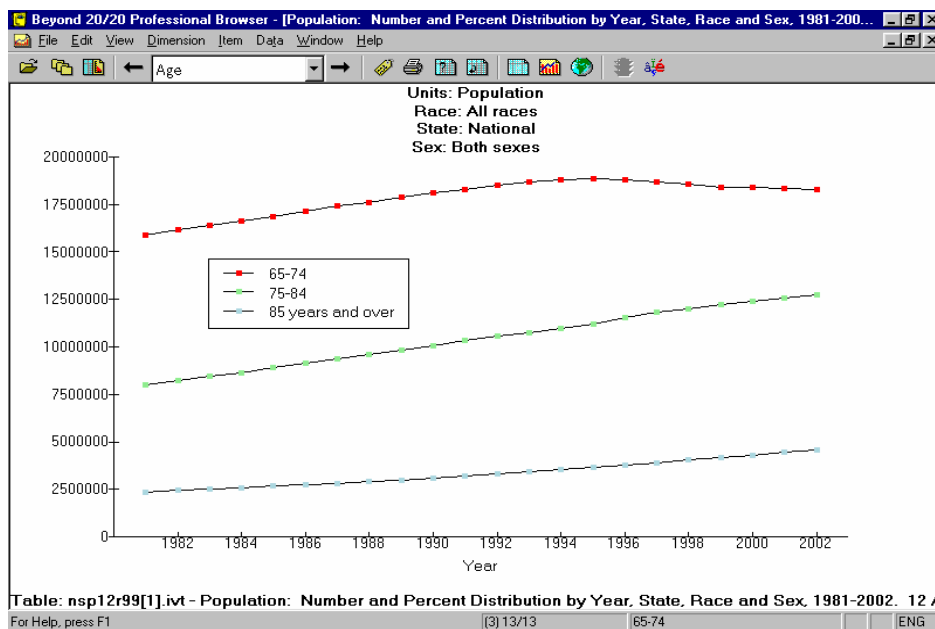
According to the Data Warehouse, the U.S. population increased by about 59 million between 1981 and 2002, representing a 26 percent increase in the total population. The increase of 9.4 million in the elderly population in that same time period represents a

growth of nearly 36 percent. These growth rates show that the elderly population is growing more rapidly than the population as a whole.

We can take a more in-depth look at the 65 and older population. Open up the table titled “Population: Number and Percent Distribution by Year, State, Race and Sex, 1981-2002. 12 Age Groups (P12R02cf),” which breaks the 65 and over population down into more detailed age categories.

To create the chart below:

- Change the table so that **Age** is the row dimension and **Year** is the column dimension.
- Remove any nested dimensions by moving them back to the dimension bar.
- Change the **Units** dimension to **Units: Population**. (Make sure that the other dimensions in the dimension bar are **Race: All races**, **Sex: Both sexes**, and **State: National**.)
- Highlight the rows for **65-74**, **75-84** and **85 years and over** by clicking and holding as you drag the cursor over all three labels.
- Click on the **Display Chart** icon in the toolbar. Access **Chart Options** and change the chart type to a line graph.



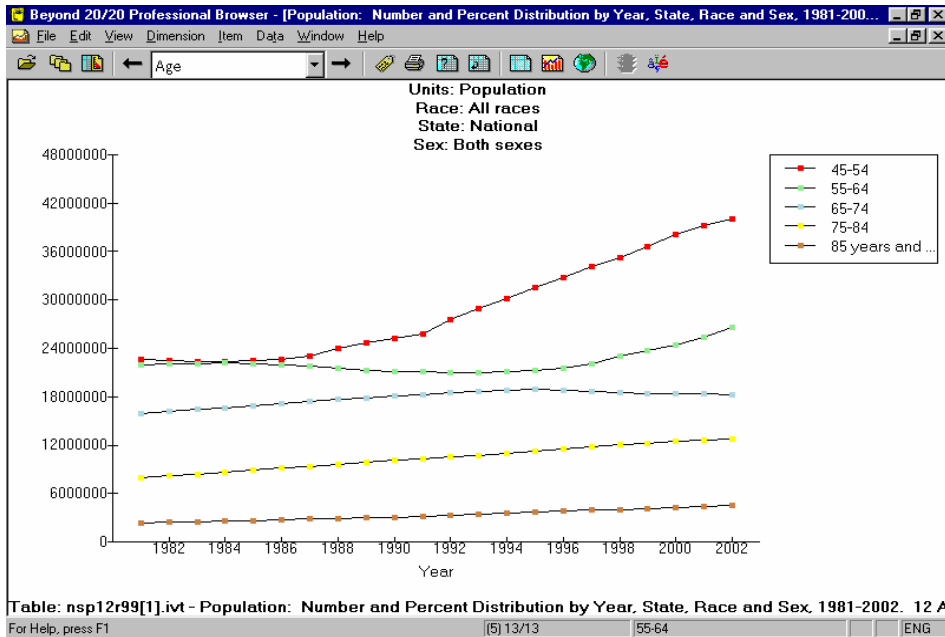
You will notice that the *75-84 years* and *85 years and older* groups seem to have increased steadily while the *65-74 years* group experienced less sustained growth. In fact, the number of persons 65-74 years of age has been decreasing since 1995, while the number of persons in the two oldest age groups has continued to increase. From the table we can determine that there were 2.4 million more persons 65-74 years of age in 2002 than in 1981, while there were nearly 4.8 million more in the 75-84 age group and 2.2 million more at ages 85 and over. These increases represent a growth of 15 percent in the

65-74 age group, 60 percent in the 75-84 age group, and 96 percent in 85 and over age group.

The 85 and older population group is often referred to as the “oldest old.” Issues that we discuss later in the chapter, including items related to social and economic impact, are even more relevant for this particular group because they are far less likely to work and far more likely to require medical and other forms of support. With increasing life expectancies from better medical technologies and healthier lifestyles, the relative size of this population will almost surely increase into the future.

To examine these trends more closely, make a line chart that shows how the percent distribution has changed for all the age groups over age 45.

- Return to the table, highlight the top 5 age groups by clicking and holding, then click on the **Display Chart** icon.



Since 1987 the 45-54 age group has been growing much faster than the older age groups. By 2002 the 45-54 age group included much of the well known “baby boom cohort.” The baby boomers are the generation born during the two decades after the conclusion of the Second World War (1945-1964). The baby boomer cohort is going to have a dramatic impact on the age composition of America as they age. It will continue the trend towards both a greater absolute increase and relative increase in the size of the elderly population. A sense of this effect is gained by noting the increase in the age group 55-64 that begins in 1997, 10 years after the increase began for the 45-54 age group.

The graying of America is not entirely a recent phenomenon. Rather, the trend is visible from data that dates back as far as 1950. We can examine the longer trend using the “Population by Sex and Race, 1950-1980 (6 Age Groups)” table in the Data Warehouse.

- Change the **Units** dimension to **Units:% Distribution** and the **Age** dimension to **Age: 65 and older**

The percentage of the population age 65 and over was 8.1 in 1950. The percentage increased over three percentage points between 1950 and 1980, to 11.3 percent. By 2002, the last year of data available from the Data Warehouse, the percentage of the population age 65 and over had increased another percentage point to 12.4.

- See this by opening the table “Population: Number and Percent Distribution by Year, State, Race and Sex, 1981-2002. 6 Age Groups” and making **Year** the row dimension and **Age** the column dimension.

So from 1950 to 2002, the relative size of the population age 65 and over increased by more than four percentage points. By examining the tables for 12 age groups, we can tell that the 85 and older population increased from .4 percent to 1.6 percent of the total population in that same time period, a small numerical change that belies the significance of the increase. In 2002 the 65 and older population was nearly 3 times larger than in 1950, but the 85 and older population had increased nearly 8 fold.

One effective way to see the changing face of America is to examine the structural changes in the population pyramid. The graphs on the next page show the pyramids for the years 1950, 1980, and 2002. The shifting population pyramids physically demonstrate an important demographic change. The population pyramid is reshaping from a triangle, whose bottom-heavy shape indicates that there are more young people than older people, to a more rectangle-like appearance. This trend toward equalization in the age groups is the result of both declining fertility rates since the post-WWII “baby boom” and more people living to a ripe old age. A near perfect rectangle shape would mean that each age group has roughly the same number of members (no major baby booms) and that few people were dying before their 85th birthday.

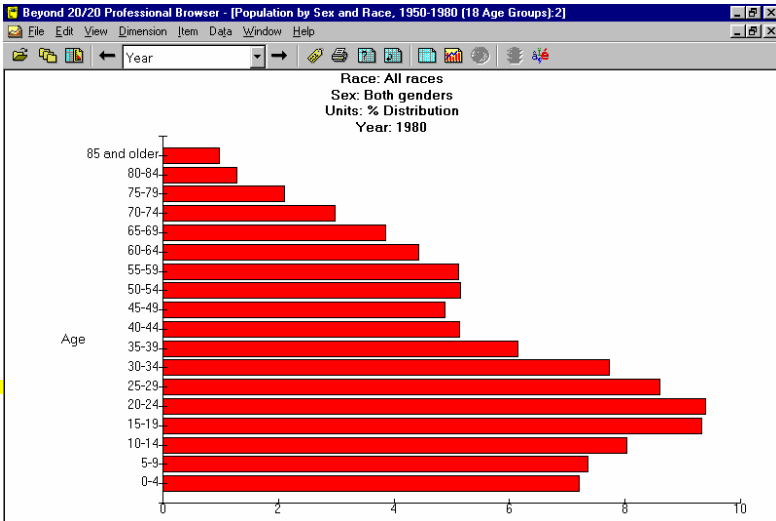


Table: p50a18a[1].ivt - Population by Sex and Race, 1950-1980 (18 Age Groups)

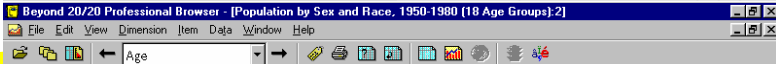


Table: p50a18a[1].ivt - Population by Sex and Race, 1950-1980 (18 Age Groups)

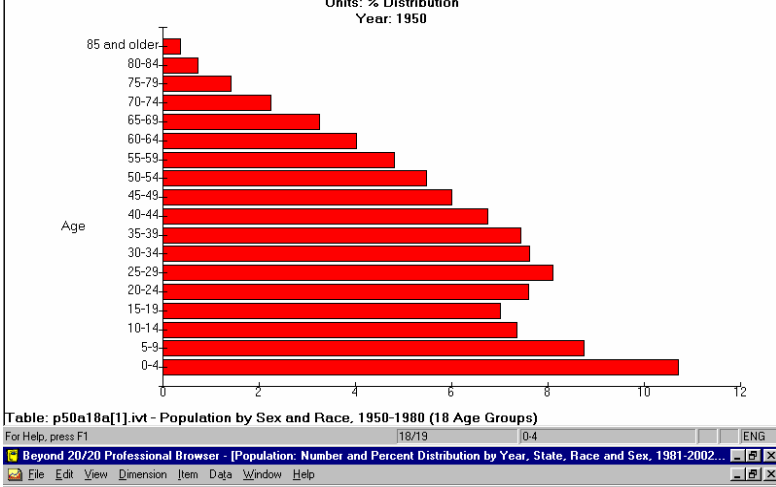
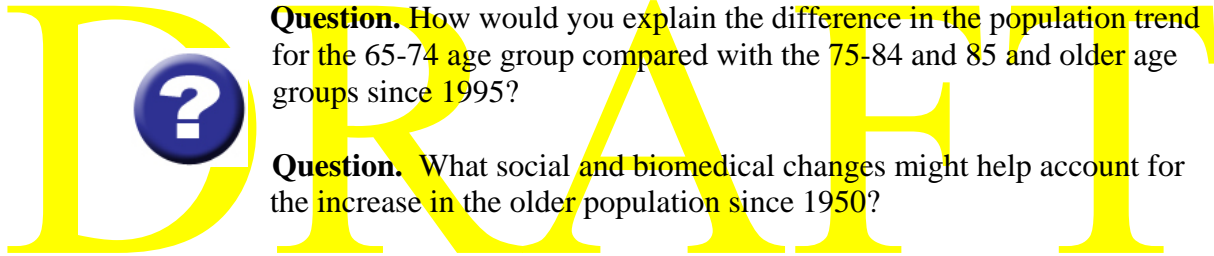


Table: nsp20r99[1].ivt - Population: Number and Percent Distribution by Year, State, Race and Sex, 1981-2002. 18 A

The graying of America, a trend that is evident by looking back to 1950, is really only beginning. In 2010, when the leading edge of the baby boom cohort starts to hit 65 years of age, the relative size of the elderly population will begin to increase even more dramatically. According to US Census Bureau projections, the relative size of the older population in 2015 will reach 14 percent. In 2030, the percentage is projected to be almost 20% of the total population. Keep these projections in mind as you proceed through the module. They become especially important when we discuss the social and economic consequences of population aging in section II.



Question. How would you explain the difference in the population trend for the 65-74 age group compared with the 75-84 and 85 and older age groups since 1995?

Question. What social and biomedical changes might help account for the increase in the older population since 1950?

B. Gender Distribution of the Older Population

Having determined that the number of older Americans is increasing and is projected to continue to rise, we might want to inquire about the demographic make-up of this population. What is the gender mix? What is the racial composition of the elderly population? We examine the sex ratio for the age 65+ population first, and turn to racial trends in next subsection.

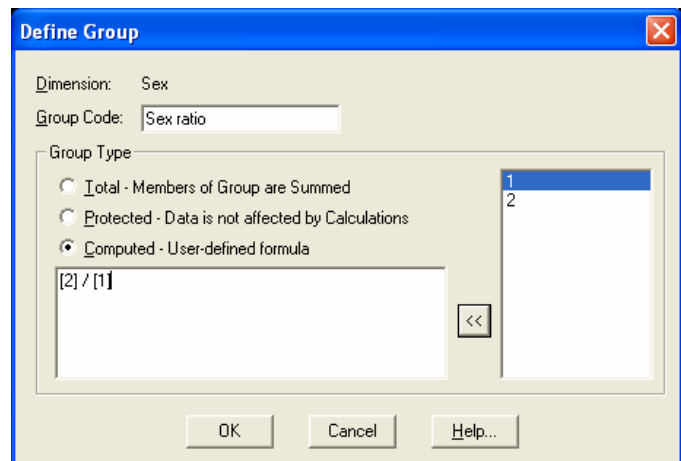
Return to the table titled “Population: Number and Percent Distribution by Year, State, Race and Sex, 1981-2002. 12 Age Groups.” In this table, the three age groups 65-74, 75- 84, and 85 *years and older* must be combined to create a group that shows age 65+. To combine several groups from a dimension, do the following:

- Make **Age** the row dimension and **Year** the column dimension and change the **Units** dimension to **Units: Population**
- Select the rows corresponding to age groups 65-74, 75- 84, and 85 *years and older*. Define the new group using the **Define Group** option from the **Item** menu. (The default **Group Type**, *Total*, is what you want in this case since it will sum the members of the group to create one combined group of age 65+.).
- Click **OK**, then **Yes** to do the calculation.

We would like to look at the change in the gender composition of persons 65 and older over the past twenty years. We will look at the trends by calculating the sex ratio, which is simply the number of women divided by the number of men at a given point in time.

Follow these steps to calculate the sex ratio:

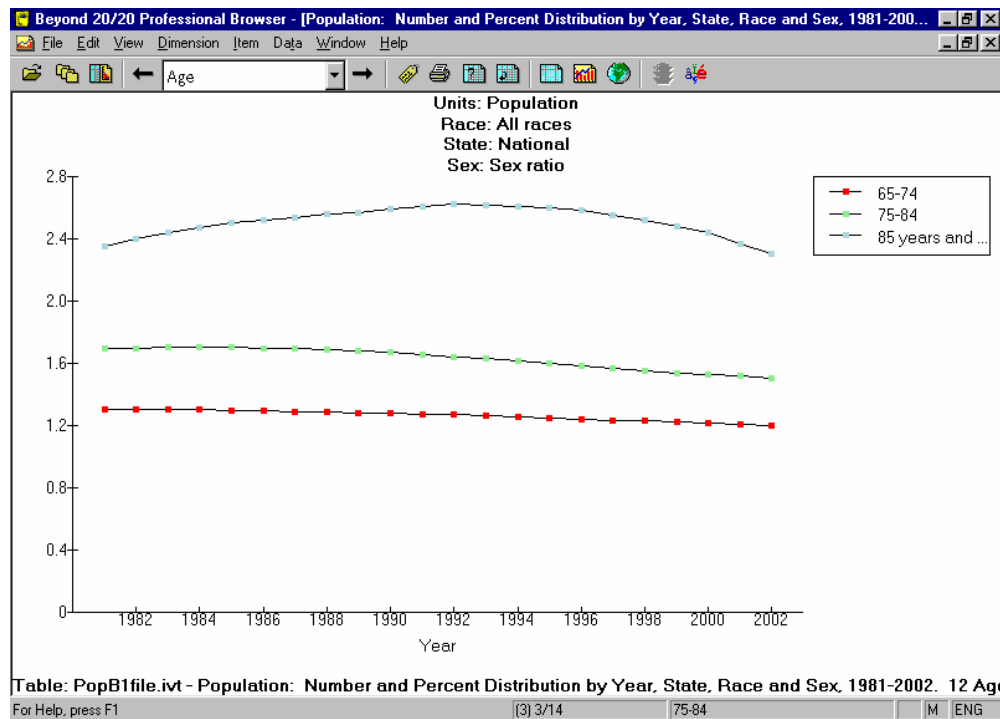
- Nest the Sex dimension inside the Age row dimension. Select (highlight) the 65+ rows and select **Show** from the **Item** menu.
- Highlight the Male and Female rows and select **Define Group** from the **Item** menu.
- Name the new group by entering “Sex ratio” in the **Group Code** box and choose **Computed** as the **Group Type**. The numbers in the box at the right of the **Define Group** dialog box represent the item numbers you are dealing with. Here, 1 represents men (the top row) and 2 represents women (the bottom row).
- Select 2 from this box; click the left arrow button to move it to the calculation box.



- Type in the division symbol “/” (backslash) into the calculation box.
- Then select (double click) the 1 in the right box and click the left arrow button. The calculation box on the left should now say [2]/[1], representing the number of women divided by the number of men. Click **OK** and then **Yes**. It may take a few seconds to finish the calculations. Now there is a new row, *Sex ratio*, in the table.
- If you need to reformat the number display to see a greater number of digits behind the decimal point, select the row and set the **Decimal** number from the **View** menu.

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
65+ Sex ratio	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.48	1.47	1.47	1.46	1.45	1.44	1.43	1.42	1.41

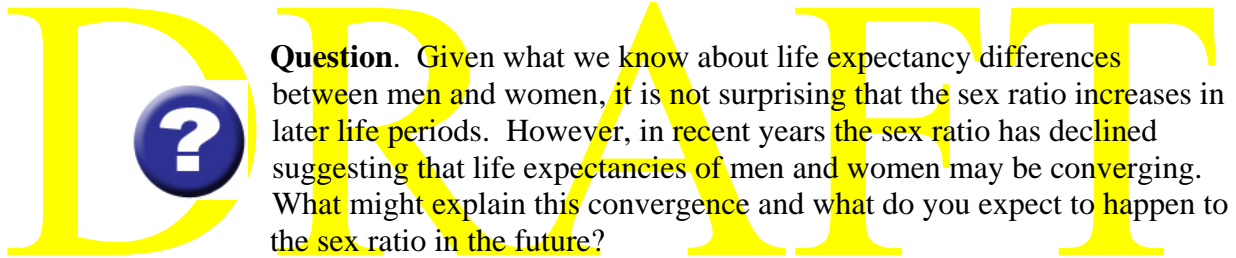
The sex ratio for the older population remained fairly steady at around 1.49 women for every man over the period 1982-1990. The ratio fell from 1.48 in 1991 to 1.41 women to every man in 2002, as seen in the table. Within the elderly population there is some variation by age group though.



Nearly equal numbers of boys and girls are born, and the sex ratio remains fairly constant over most of the life course. However, it is well known that women have a longer life expectancy than men. You can see this for the population group age 65-74,

but it is even more evident for the oldest old (age 85 and over). For example, the sex ratio for the oldest old was as high as 2.62 during the period from 1981 to 2002. (For a more in depth examination of life expectancies, refer to the subsequent section in this module, as well as the Life Expectancy module).

You should also note the decline in the sex ratio for all of the three age categories. From 1981 to 2002, the sex ratio declined from 1.31 to 1.20 for persons age 65-74 and from 1.70 to 1.51 for those age 75-84. More striking has been the decline in the sex ratio among the oldest old since 1993, from 2.62 to 2.30. In 2002 the sex ratio for persons 85 and older was lower than in 1981.

 **Question.** Given what we know about life expectancy differences between men and women, it is not surprising that the sex ratio increases in later life periods. However, in recent years the sex ratio has declined suggesting that life expectancies of men and women may be converging. What might explain this convergence and what do you expect to happen to the sex ratio in the future?

C. The Racial Composition of the Elderly Population

The population of the United States is comprised of many race and ethnic groups. Categories commonly used in official government reports to identify these groups include blacks, Asian or Pacific Islanders, American Indian or Alaskan Natives, and whites. In most federal government data, ethnicity, such as Hispanic or Latino origin, is determined separately from race. There are at least two ways in which you can examine these groups in regards to age structure. You can examine the racial or ethnic composition of those 65 and older or you can examine the age composition of any given racial or ethnic group. The first examination will tell you, for example, what proportion of those age 65+ are black. The second type of analysis will allow you to see how many or what portion of blacks are elderly.

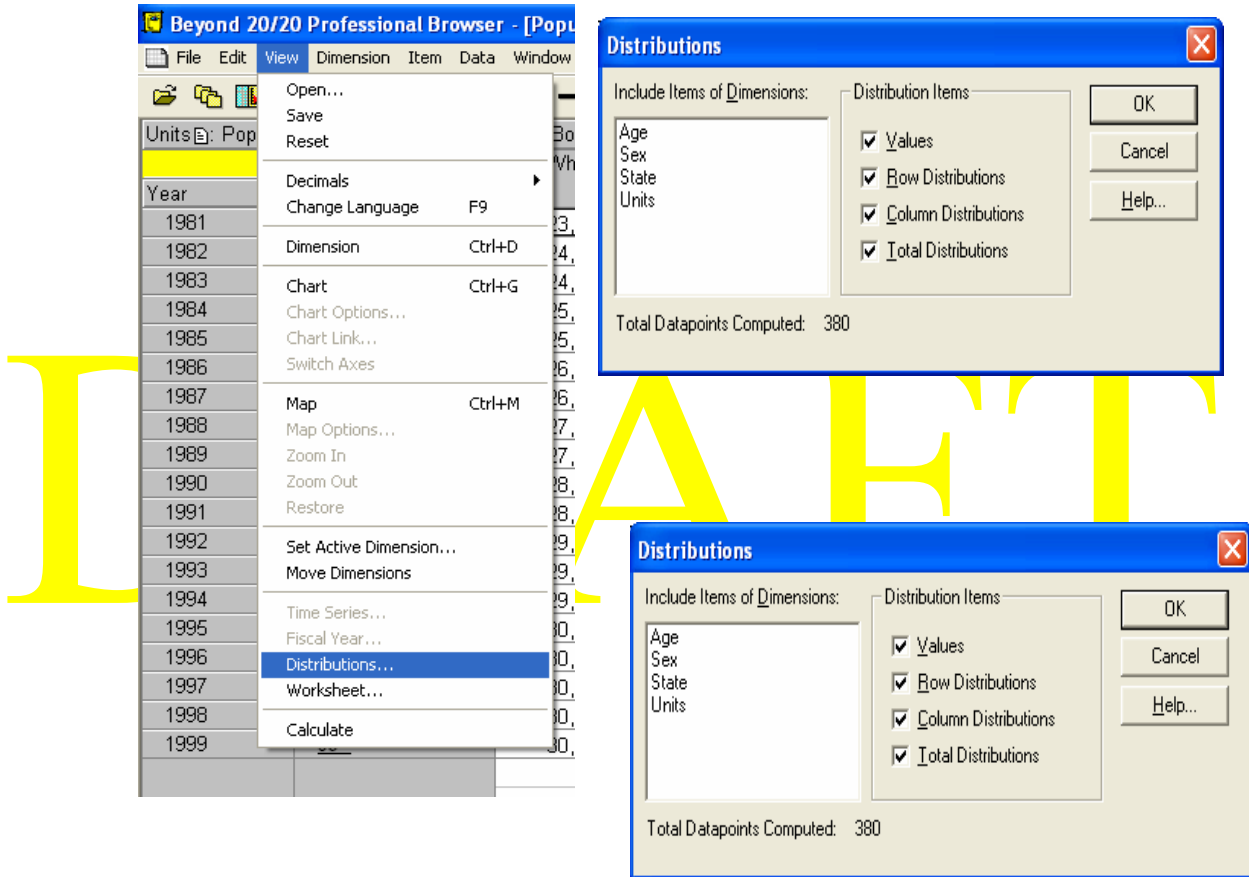
To examine the racial composition of the elderly, you will need to add an entirely new dimension to your table. First, though, you will want to set up your table to examine age and race. It is recommended that you start with a fresh table by closing all open windows and reopening “Population: Number and Percent Distribution by Year, State, Race and Sex, 1981-2002. 6 Age Groups.”

- Make **Year** your row dimension, **Race** your active column dimension, and remove all other nested dimensions (if any).
- Restrict your table so that it only shows data for the 65+ age category.
- Change the **Units** dimension to **Units:Population**.

To examine the racial composition of the 65+ age group, you will want to use the **Distributions** function. The **Distributions** function will summarize rows and columns for you so that you can see, for example, what percentage of the elderly were Asian/Pacific Islanders in 2002. In order for this to work properly, we have to make sure that the *All Races* category is not used in the distribution calculation.

The following steps will allow you to see the racial compositions of the population 65 years of age and older:

- Remove the extraneous category by highlighting *All Races* and selecting **Hide** from the **Item** menu.
- Next, select **Distributions** from the **View** menu
- Click **OK** on the *Distributions* dialog box



You should note that a new dimension, **Distributions**, has been added to your Dimension bar alongside **Units**, **State**, **Sex**, and **Age**. The new dimension has four categories: **Data Value**, **Percentage of Row Total**, **Percentage of Column Total**, and **Percentage of All Values**. You can switch between the categories just as you would with any other dimension using the arrows on either side of the Active Dimension menu.

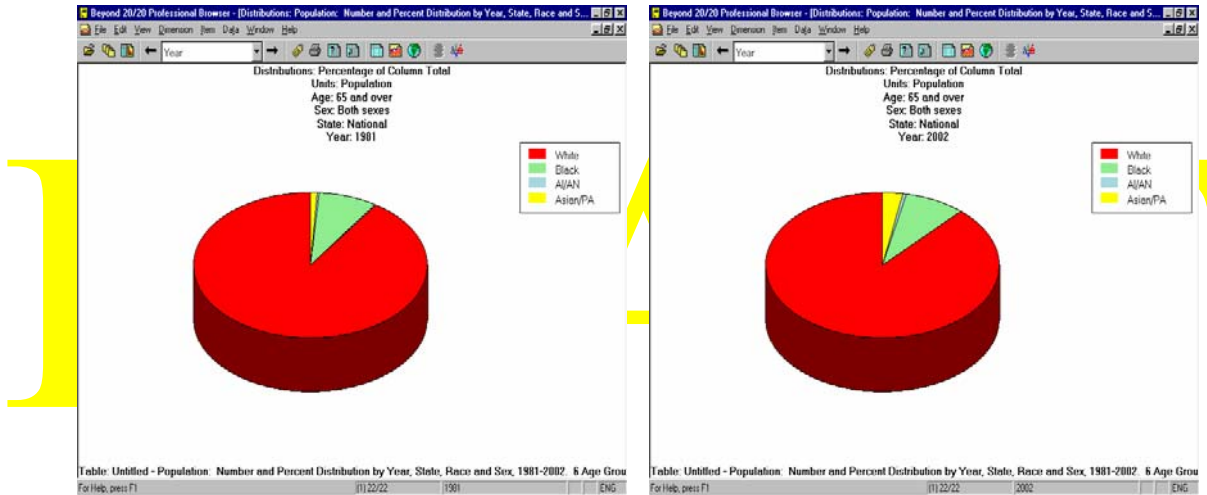
- Change the **Distributions** dimension to **Distributions: Percentage of Row Total**
- If necessary, reformat the percentage by increasing **Decimals** in the **View** menu.

We can see that as a percentage of all those age 65 and older, the proportion of whites declined steadily from 1981 to 2002. The proportion of blacks and American Indian/Alaska Natives remained fairly constant. The proportion of Asian/Pacific Islanders, in contrast, has grown significantly in the same period. As a percentage of all persons age 65 or older, Asian/Pacific Islanders grew from 0.93% up to 2.80% accounting for nearly all the decrease in the relative size of the white population.



Can you think of why this portion of the elderly population has grown so much compared to others?

You could represent the data graphically in a number of ways. Below are pie charts that show the racial composition in 1981 and 2002. By comparing the two charts, you can see the growth in the proportion of the elderly that were Asian or Pacific Islanders between 1981 and 2002. The chart to the right is also a good representation of the current racial composition of the elderly. Refer to your table for more detail.

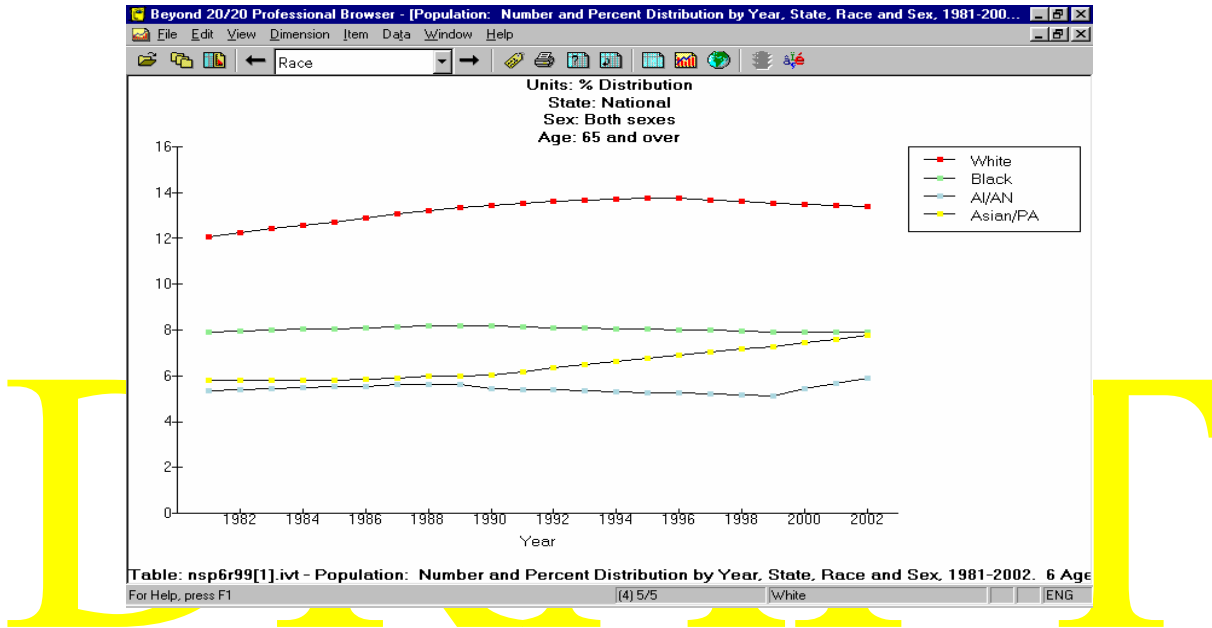


To create the pie chart for 1981:

- Select 1981 by highlighting the first column of the table.
- Click on the **Display Chart** icon in the toolbar. Right click on the chart to display **Chart Options** and change the chart to the 3-dimensional pie chart.
- By using the right arrow to change the **Year** in the Active Dimension box, you can scroll through the years to see the steady growth in the proportion Asian or Pacific Islander among the elderly.

A second type of race analysis you may want to perform is an examination of the change in the percentage of the population that is elderly for a particular race group. Start by reopening “Population: Number and Percent Distribution by Year, State, Race and Sex, 1981-2002. 6 Age Groups.”

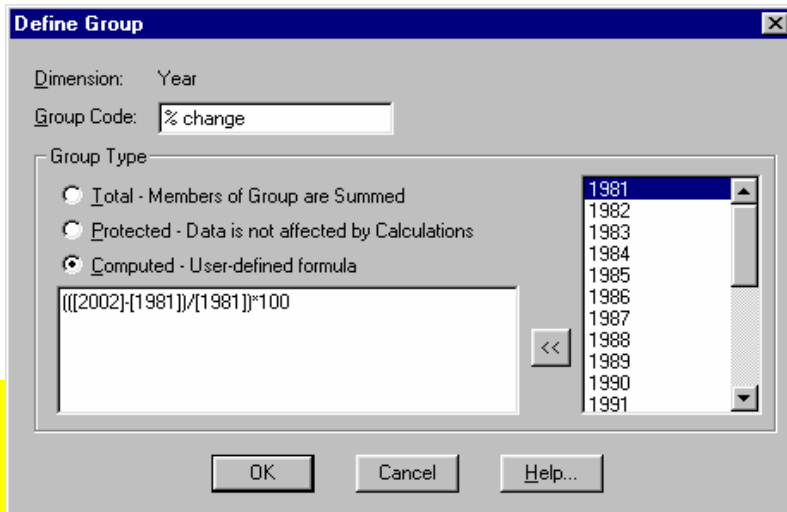
- Set up the table so that **Race** is the row dimension and **Years** is the column dimension.
- Set the **Age** dimension to *65 and older* and the **Units** dimension to *% distribution*.
- Chart the results by selecting all of the **Race** rows except the *All races* row. Use **Chart options** to change the chart type to a line graph.



The chart above shows us what percentage of the entire population is age 65 and older for each race group. You can see that a relatively larger proportion of the white population consists of persons 65 and older as compared to the other race groups. This means that of all the race groups, the white population is the oldest population. You can also see that the proportion of the population who are 65 and older is higher in 2002 than it was in 1981 for each of the race groups, except blacks.

You will note, however, that the change in the age composition has not been the same across race groups. You can compare the rates of change in the elderly population between 1981 and 2002 by doing the following:

- Change the **Units** to *Population*
- Calculate the percent change for each of the race groups by defining a new group, using the **Define Group** option in the **Item** menu. Enter *% change* as the **Group Code** and use $[2002]-[1981]/[1981]*100$ as the computation.
- You should see a new column added to the table. Change the **Decimals** setting in the **View** menu if necessary to see the percent change to two decimal places.



For the entire population, the population 65 and older has risen by 36 percent, as is shown in the row for *All races*. The Asian/Pacific Islander population has seen the largest percentage increase (306 percent).

Year	2001	2002	% change
All races	35,353,274	35,601,917	36
White	31,294,323	31,435,843	32
Black	2,947,360	2,988,578	39
AI/AN	172,804	181,724	129
Asian/PA	938,787	995,772	306

Note that our calculations, changes in percentage, are sensitive to the absolute values for each data point. While Asian/Pacific Islanders have seen the largest percentage change in their elderly population, it is the white population that actually experienced the largest absolute numerical increase in the aged population - approximately 7.7 million. (To calculate the exact absolute changes in population, you could define a new *Computed* group using the equation [2002 - 1981]).

The Data Warehouse on Trends in Health and Aging also provides data on ethnicity, specifically by Hispanic origin. Data about the Hispanic population, however, are located in different tables. For example, see the table entitled “Population: Number and Percent Distribution by Year, State, Race/Hispanic Origin and Sex, 1981-2002. 6 Age

Groups.” The analysis conducted above on race could also be applied to the racial and Hispanic origin groups in this table.



Question. Our analysis showed that persons 65 and older make up a relatively smaller portion of their race group for non-whites than they do for whites. What might explain these differences? What changes might take place that will reduce these differences in the future?

DRAFT

II. Causes and Implications of Population Aging Trends

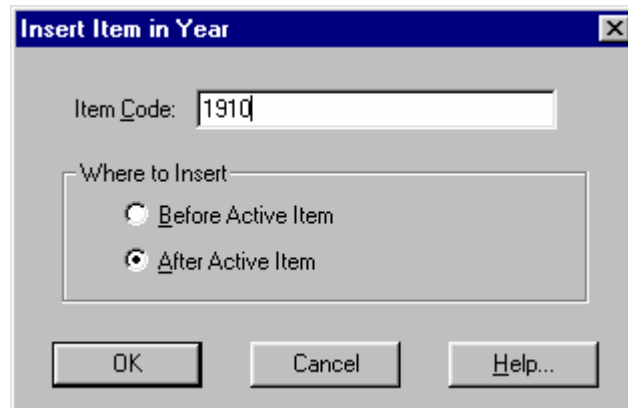
Government leaders and social scientists often discuss the impact an aging population will have on our communities, the economy, and society at large. With greater numbers of older persons in our population comes greater need for resources to support them. This final section explores a root of the increase in the elderly: the steadily increasing life expectancy in the United States. Then we examine a commonly used indicator for assessing the impact of population aging called the elderly support ratio. The module concludes by discussing the potential social and economic impacts of a growing older population as reflected by actual and projected Medicare enrollment increases.

A. How has Life Expectancy Changed?

Population aging in the United States has been fueled partly by dramatic increases in life expectancy. To see how significantly life expectancies have changed we must look at the long-term pattern.

Begin by making a chart of the trend in life expectancy at birth.

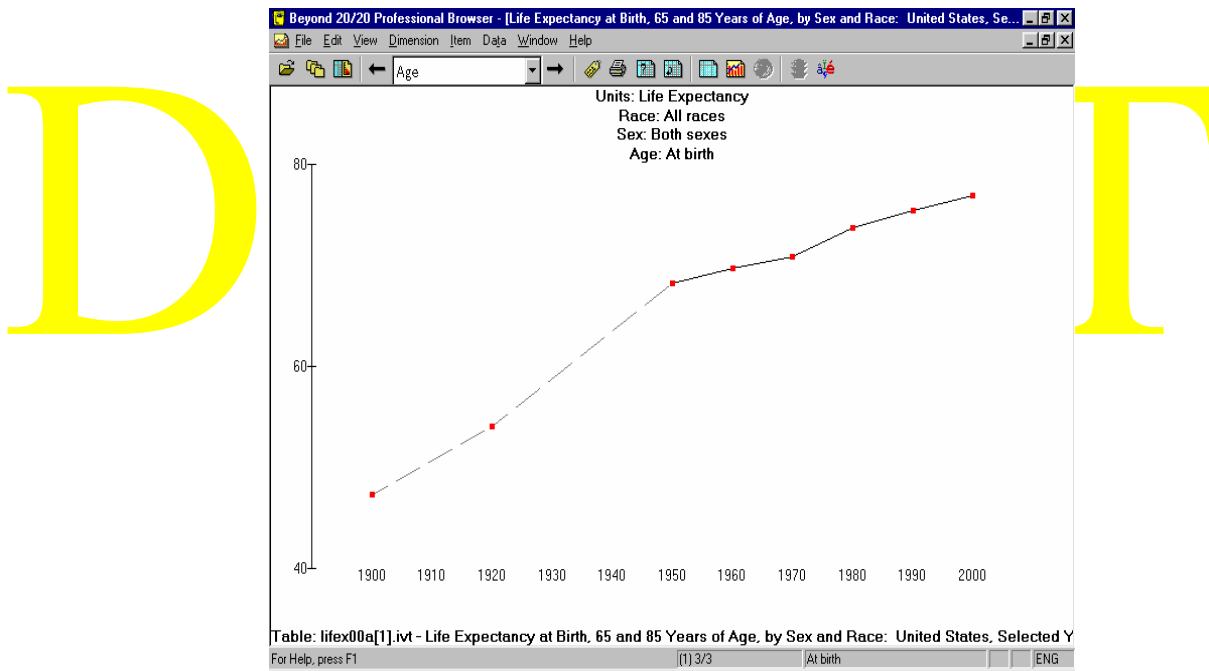
- Go to the “Life Expectancy” folder and open the table “Life Expectancy at Birth, 65 and 85 Years of Age, by Sex and Race: United States, Selected Years 1900-2000.”
- Set **Year** as the column dimension and use the **Hide** option in the **Item** menu to show only the years at the beginning of each decade.
- Add *1910* to the **Year** headings by highlighting the *1900* label, selecting **Insert** from the **Item** menu, typing *1910* as the **Item Code** and selecting **After Active Item**.



- Follow the same steps to insert headings for 1930 and 1940.
- Chart the *At birth* row with a line chart.

- Change the scale of the vertical axis by clicking on the axis and entering your own maximum, minimum, and tick spacing in the menu box.

You can see that life expectancy increased quite sharply in the first half of the century, rising from 47.3 years to 68.2 years between 1900 and 1950. There was a more gradual increase over the following fifty-year period, from 68.2 years to 76.9-years.



Life expectancy increased by nearly 30 years over the entire century. In the year 2025, projected life expectancy for men and women at birth will be 76.5 years and 81.5 years, respectively. The slow ascent is projected to continue, and by 2050 life expectancy at birth is expected to be 79.0 years for men and 83.5 years for women. To learn more about trends in life expectancy and mortality go to the module titled “Trends in Life Expectancy and Mortality.”

Keep in mind that life expectancy is only part of the story of aging in America. It is large cohorts of aging persons (such as the baby boom generation) in combination with longer life expectancies that make the graying of America a truly great demographic phenomenon. The next section provides one way of assessing the magnitude of these combined forces.



Question. We see that life expectancies differ by gender. Use the information in the tables to see how they differ between whites and blacks. Have life expectancies for whites and blacks been converging or diverging since 1970? What might explain the trend in the difference?

B. Providing for the Elderly

The elderly support ratio is the ratio of the number of people of working age to the number of people at or above retirement age. That is, the total number of persons age 20-64 or 25-64 divided by the total number of persons age 65 or over. This ratio is commonly employed in evaluating the economic health of social insurance systems like Social Security and Medicare because it compares the population size of those with earnings power (and tax-paying power) to the population size of those that receive these social insurance benefits. It is taxes paid by those currently employed that primarily fund America's Medicare and Social Security programs for today's elderly.

As we saw very early into this module, America's population is growing older. This information alone is an indication that the elderly support ratio is getting smaller. As the older population continues to make up a larger portion of the entire population, there is concern about the increasing financial burden that will fall to today's children and future generations. The following examines trends in the elderly support ratio.

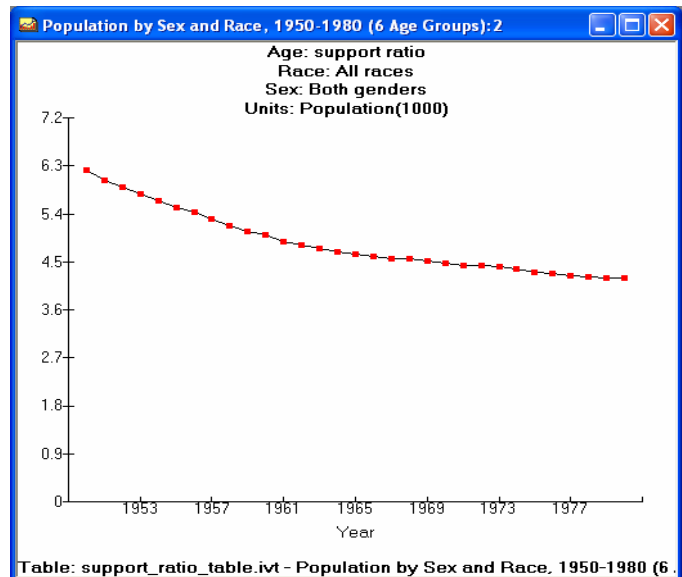
Calculating the elderly support ratio is quite easy with *Beyond 20/20*. Begin by opening the table "Population by Sex and Race, 1950-1980 (6 Age Groups)."

- Make **Age** the row dimension and **Year** the column dimension. (Remove any nested dimensions).
- Define a new group within the **Age** dimension called "Support ratio."
- Set the group type to **Computed** and enter the formula $([4]+[5])/[6]$. (Be careful to make sure you include the appropriate columns when making your own custom groups and note that age categories can differ from table to table.)

You should now have a new row, depending on how you set up your table dimensions, with an elderly support ratio for each year.

The data reveals a reduction in the elderly support ratio, from 6.23 in 1950 (meaning that there were 6.23 persons age 25-64 for every one person age 65 and over) to 4.20 in 1980.

Between 1980 and 2002 the elderly support ratio changed relatively little, declining to a low of 4.06 in 1992-1994 and rising somewhat thereafter. You can see this trend in detail by calculating the support ratio from the table, "Population: Number and Percent Distribution by Year, State, Race and Sex, 1981-2002. 6 Age Groups."



Government estimates suggest that by 2050 the elderly support ratio will have fallen to 2.3. Over the 100-year period from 1950 to 2050, the demographic shift means that there will be approximately 4 fewer persons to help support the needs of each elderly person.



Question. Throughout this module, we have examined various demographic characteristics of the older population including sex and race. Are such characteristics important when considering the elderly support ratio? Why or why not?

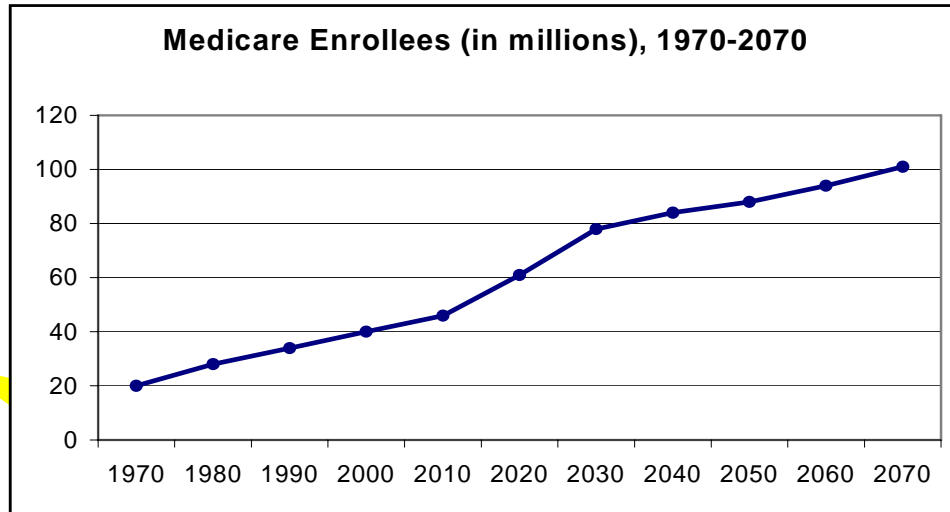
DRAFT

C. The Explosion in Medicare Enrollments

There are many reasons why people are interested in the aging of America. Health professionals are interested for the sake of predicting the demand for health care services in the future, businesses for the purpose of developing products to meet the needs of the elderly, and demographers for the phenomenon alone. Those in the field of public policy are another interested group because an older population will have an impact on our society and economy in many ways. One prominent concern is the financial impact that this growing population will have on social insurance programs including Social Security and Medicare. We conclude this module by briefly looking at the trend in Medicare enrollment.

Medicare, which began in 1966, is a federal health insurance program for the aged, disabled, and for those who have end-stage renal disease. The program is largely financed from the payroll taxes of current workers. A small portion of enrollees must pay adjusted premiums if their prior work experience makes them ineligible for Medicare benefits. Over 40 million persons are currently enrolled in the program. The program began with about 20 million persons.

Earlier in this module we examined the increase in the size of the elderly population and noted projections about additional increases. Persons in the baby boomer cohort, that is persons born between the end of World War II and the mid-1960's, first become eligible for Medicare (and Social Security) in 2010. By 2015, it is projected that additional 12 million persons will be enrolled in the Medicare program. The baby-boomer generation will continue to increase the number of enrollees for an additional decade, and projections even further into the future show continued increases. From 40.5 million in 2002, the number of Medicare enrollees is projected to more than double, to nearly 90 million, by 2050.



Source: “2002 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds.” Table II.A4. For 1970 to 2000, the chart represents the actual number of enrollees. Projections are used for 2010 to 2070.

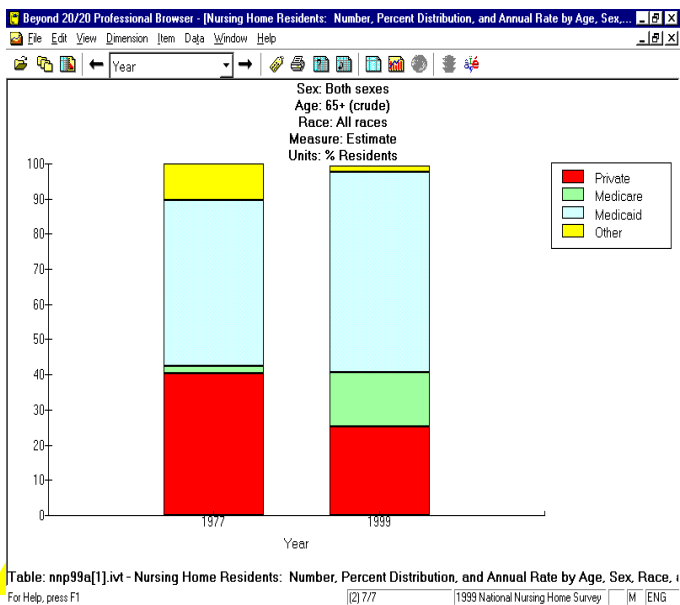
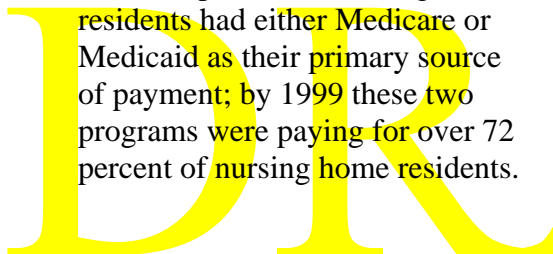
In addition, the greater part of the elderly population reports having at least one recurring health ailment, and because their health problems are often more severe than for younger groups, the elderly are often in need of more extensive and expensive medical care. Ultimately, many elderly will need to spend some time in a long-term care facility, and most of that care will be paid for through programs supported by the federal government.

You can begin to see the extent of this increasing burden by examining the trend in source of payment for nursing home residents found in the table, “Nursing Home Residents: Number, Percent Distribution, and Annual Rate by Age, Sex, Race, and Primary Source of Payment. United States, Selected Years, 1977-1999. NNHS” located in the *Nursing Home* folder contained within the *Health Care Utilization* folder.

Year	1977	1985	1995	1997	1999	Change 1999 -1977	% Change
All residents	1,126,000	1,316,800	1,406,300	1,465,000	1,469,500	343,500	31
Private	454,400	575,600	396,700	380,200	370,100	-84,300	-19
Medicare	24,900	20,300	176,700	220,500	227,400	202,500	813
Medicaid	530,800	651,100	795,100	822,400	835,400	304,600	57
Other	115,900	69,900	29,100	28,600	25,300	-90,600	-78

While the total number of elderly residing in nursing homes increased by over 343 thousand between 1977 and 1999 (the latest year for which data is available from the National Nursing Home Survey), the number of residents whose primary source of payment was either Medicare or Medicaid increased by over 500,000.

The expanding role of government programs in providing for long-term care of the elderly is seen most graphically by examining the change in the percent of residents by primary source of payment. In 1977 just under 50 percent of nursing home residents had either Medicare or Medicaid as their primary source of payment; by 1999 these two programs were paying for over 72 percent of nursing home residents.



Policymakers have to give careful consideration to this trend and make decisions on how to respond to the increasing financial burden implied by a rapidly aging population. One option is to simply continue the Medicare and Medicaid programs as they are currently structured. From our look at expected changes to the support ratio and projected trends in utilization, leaving the system as it is now likely means that future generations will bear a larger tax burden for Medicare and Medicaid than taxpayers do today. Alternatively, policymakers may decide to reduce the benefits offered through these programs in order to hold down the anticipated increase in future tax burden. Another alternative is for policymakers to adjust the eligibility requirements. For example, changing the age of Medicare eligibility from 65 to 70 would lead to a reduction in enrollment levels and possibly negate a rise in the tax burden, but would not necessarily reduce the level of benefits provided by the program.

It should be apparent that the aging of America is an important issue. It has and will continue to have large impacts on our communities, society, and economy. Please use the Data Warehouse or the sources referenced below to explore the topic further and learn more about the graying of America, its causes, and its impacts.