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GRAYING OF THE NATIONAL BUDGET: THE YEAR 2020

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To be presented at the 1984 Joint Statistical Meetings
on August 13-16, 1984 in Philadelphia, Pennsylvania.

029718

OVERVIEW

One of the most striking demographic trends of the twentieth century has been the aging of the United States population. While all age groups have grown and continued to do so, the population of older people is growing faster. To express this real and projected growth in numbers of Americans 65 years old and older, the 5 million elderly in 1920 became 25 million in 1980, and will become 45 million in 2020.

As the population ages, the national budget feels the impact. Income security is the largest and one of the most steadily growing functions in the Federal budget. In 1980, Federal expenditures for income security reached \$193 billion, more than 33 percent of total expenditures. Eighteen years earlier it was 21 percent.

The interaction of an aging population and the national budget can best be seen through the programs for older people. The major programs for older people are included in the Federal budget functions--income security, health, and veterans. The influence of an older population on programs--social security, health care, and veteran benefits--is dramatic.

Social Security's Old-Age and Survivor Insurance and Disability Insurance (OASDI)

According to the Social Security Administration's optimistic projections, OASDI's \$124 billion in 1980 benefit payments will become \$1,383 billion in 2020. One of the causes of OASDI benefit payment increases is growth in the number of beneficiaries. In 1980, OASDI provided benefits to 36 million people and by 2020 about 62 million. This increase in beneficiaries will account for \$155 billion or 12 percent of the total growth in benefit payments by 2020.

Health Care Programs

According to Health Care Financing Administration historical data, national health care expenditures increase for three reasons--price inflation, population growth and change in the type, frequency and intensity of goods and services used. National health care expenditures were \$42 billion in 1965 rising to \$247 billion in 1980. Price inflation caused from 49 to 73 percent of the annual increase in national health expenditures from 1965 to 1980. Population growth contributed from 7 to 8 percent. Increases due to changes in the mix of health goods and services used, frequency of use and intensity of care ranged from 20 to 43 percent.

Veteran Programs

Veterans Administration expenditures for compensation (disability payments) and pensions will increase from \$11 billion in 1980 to

\$20 billion in 2020. Four billion dollars of the increased veterans compensation and pension costs will be due to the growth of the veteran population. From 1980 to 2020, the number of veterans will increase from 30 to 40 million.

Both the increasing size and age of the veteran population will cause significant increases in medical care expenditures. The \$6 billion in 1980 veterans medical care costs will become about \$18 billion by 2020. About \$3 billion of the growth in medical care costs will be caused by the increase in the veteran population.

While the sheer increase in numbers will increase costs, the most significant surge in veteran demand for medical services will be due to the aging of the veteran population. In 1980, 10 percent of all veterans were 65 years old and older; by 2020, 29 percent of all veterans will be in this age group.

DEMOGRAPHICS OF AN AGING POPULATION

In this section, I have selected demographics that I hope will stimulate thoughts into the future. The selection, I recognize, is limited, but nevertheless useful in setting the stage for discussions on the graying of the national budget.

Following are brief capsules of the thoughts contained in this section.

Our population is graying

One of the most striking demographic trends of the twentieth century has been the aging of the United States population. While all age groups have grown and continue to do so, the population of older people is growing faster. If you compare the 1920 statistics to the year 2020, only the people in two age groups, 45 to 64 and 65 and over, will have grown in real terms; that is, become a larger portion of the population.

Non-family households are common

The trend in household composition (living arrangements) has been toward non-family households; that is, households in which members living together are not related to each other by blood or marriage. Non-family households have grown from 10 percent in 1940 to 26 percent in 1980. This trend is expected to continue, with non-family households reaching about 29 percent by the year 2020.

The trend toward an older population has also greatly changed the nature of family structures in the United States. Three- and four-generation families have become increasingly common.

More older people are living alone

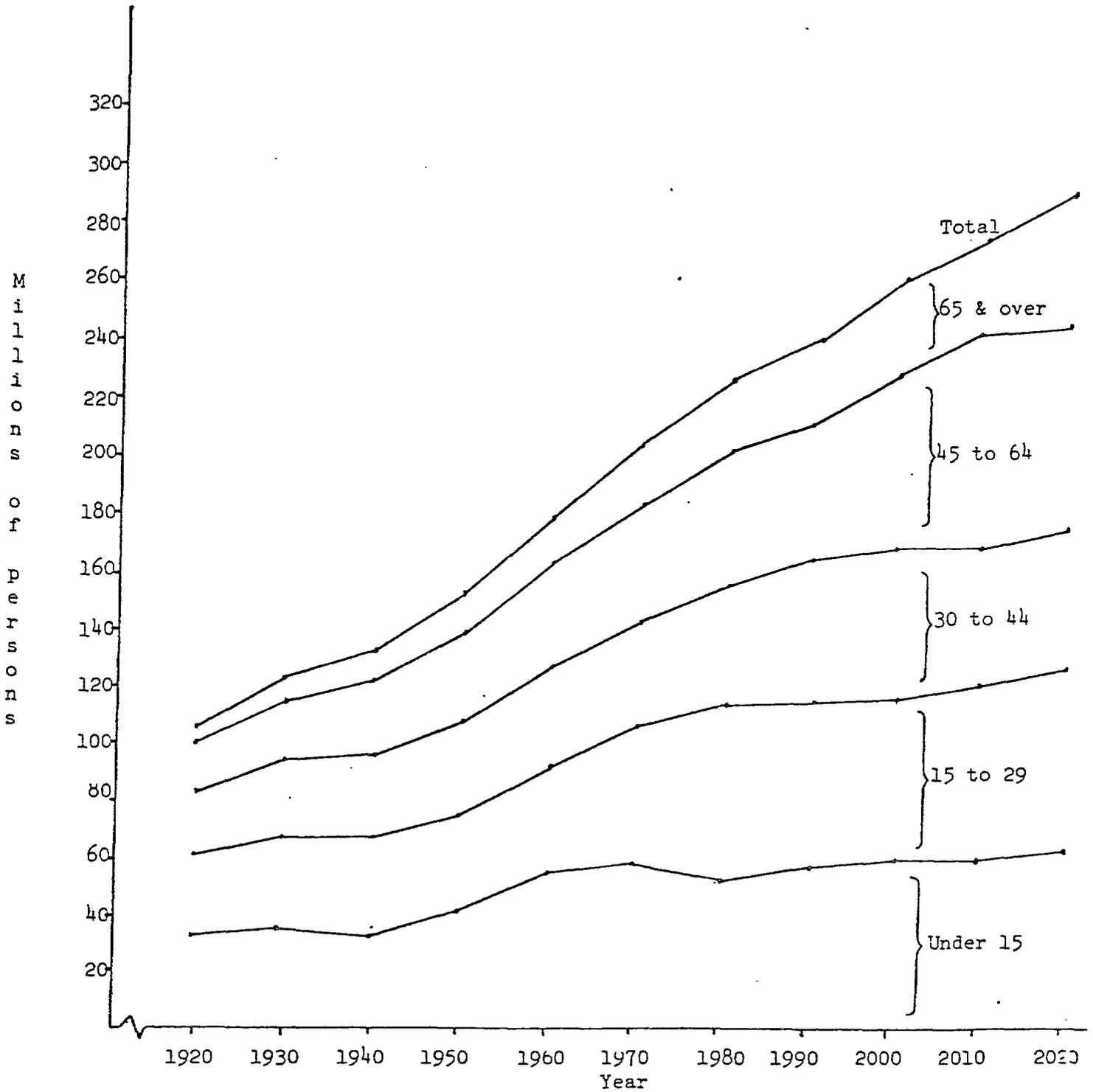
Nationally, looking at the older population specifically, one of the most striking phenomena of recent decades is the rapid growth in the number of older people living alone. Although living alone can mean greater independence, it also may mean being cut off from the most unusual form of assistance, informal supports from spouse and family, according to the Federal Council on the Aging. Since 1960, the proportion living alone has increased from 19 percent of non-institutionalized older people to 30 percent in 1979.

The Proportion of Older People in the United States Population Will Continue to Grow

Our population is graying. One of the most striking demographic trends of the twentieth century has been the aging of the

United States population. While all age groups have grown and continue to do so, the population of older people is growing faster. In 1920, less than 5 percent of the total population was 65 years old and older. By 1980 that percentage grew to 11 percent, and by the year 2020, 16 percent of the population will be 65 years old and older. To express this real and projected growth in numbers of Americans 65 years old and older, the 5 million elderly in 1920 became 25 million in 1980, and will become 45 million in 2020. If you compare the 1920 statistics to the year 2020, only the people in two age groups, 45 to 64 and 65 and over, will have grown in real terms; that is, become a larger portion of the population.

UNITED STATES POPULATION
BY AGE GROUP



Source: Department of Commerce, Bureau of the Census Historical Data and Population Projections. (See Appendix II for statistics.)

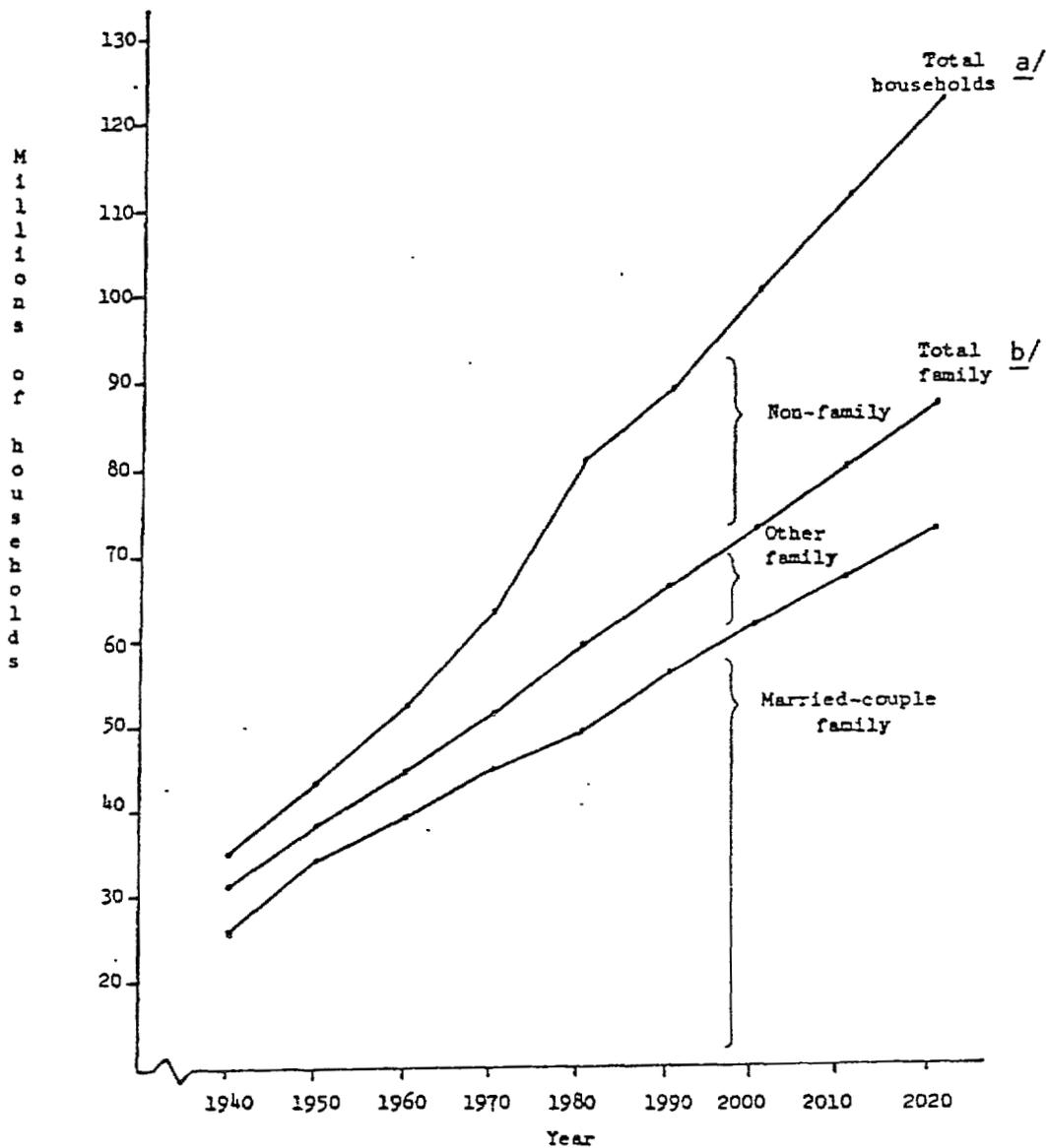
The Living Arrangements of
People in the United States
Have Changed

The trend toward an older population has greatly changed the nature of family structures in the United States. Three- and four-generation families have become increasingly common, with an estimated one-third of all persons 65 years old and older having at least one great-grandchild. Although the number of generations for each family has been increasing, the number of family members living together is decreasing.

The trend in household composition (living arrangements) has been toward non-family households; that is households in which members living together are not related to each other by blood or marriage. Non-family households have grown from 10 percent in 1940 to 26 percent in 1980. This trend is expected to continue, with non-family households reaching about 29 percent by the year 2020. Family households, on the other hand, have been decreasing as a proportion of the total household population. However, the percentage of family households composed of married couples has remained basically constant.

This trend may lead to greater reliance on Government assistance and services for older people. One of the greatest sources of help for older people is service provided by family and friends. The increasing trend toward non-family households may erode this source of help for older people.

TREND OF HOUSEHOLD
COMPOSITION



Source: Projections Based on Department of Commerce, Bureau of the Census Data. (See Appendix II for statistics.)

a/ Total households equals non-family plus other family plus married-couple family.

b/ Total family equals other family plus married-couple family.

More Older People
Now Live Alone

Nationally, for all age groups, there has been an increase in 1-person households. In 1955, 1-person households comprised nearly 11 percent of the total number of households in the United States. In 1980, that percentage increased to 23 percent of the total, or about 18 million households.

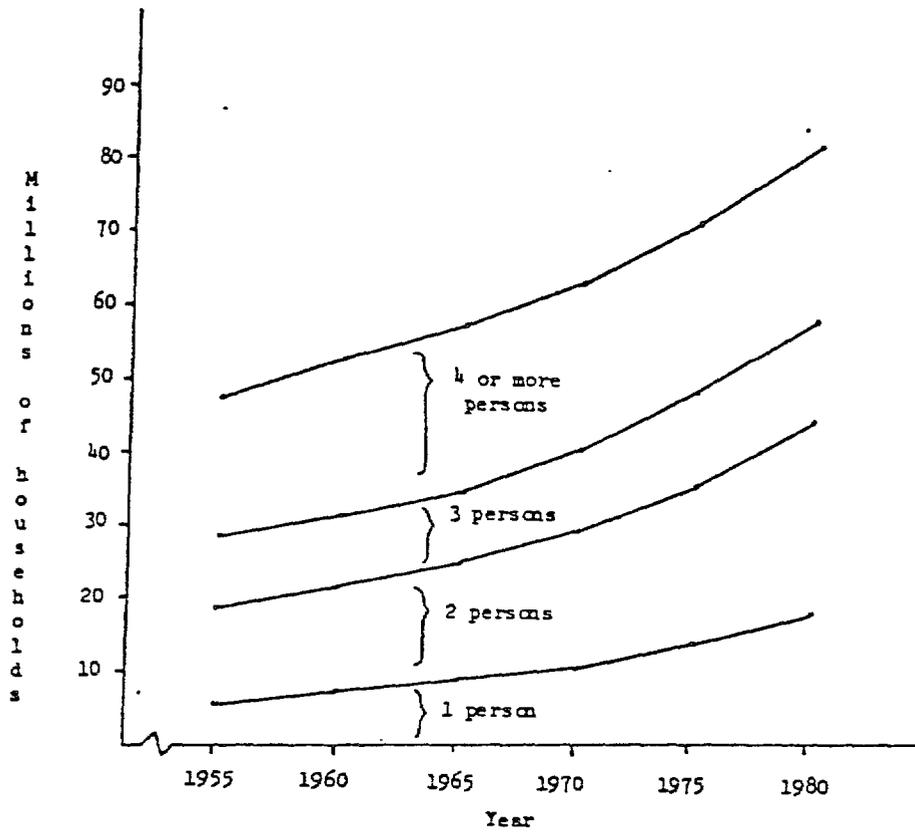
Nationally, looking at the older population specifically, a striking phenomena of recent decades is the rapid growth in the number of older people living alone. Although living alone can mean greater independence, it also may mean being cut off from the most usual form of assistance, informal supports from spouse and family, according to the Federal Council on the Aging. Since 1960, the proportion living alone has increased from 19 percent of non-institutionalized older people to 30 percent in 1979.

The trend toward living alone has been particularly noticeable among older women. The number of older woman maintaining households by themselves has grown by 3.5 million or 173 percent since 1960. The proportion of older women living alone has increased from 24 to 41 percent according to the Federal Council on Aging.

For older men, it is different. For older men, only 15 percent live alone. Another 75 percent live with their wives, 8 percent with other relatives, and 2 percent with non-relatives.

The trend toward non-family households coupled with the increasing trend of older people living alone makes the potential for reliance on Government services even greater.

NUMBER OF HOUSEHOLDS BY SIZE



Source: Department of Commerce, Bureau of the Census
Historical Data. (See Appendix II for statistics.)

THE BUDGET AND DEMOGRAPHICS:
THEIR INTERACTION

The key to using demographics is to integrate budget and program expenditures with population and beneficiary information, and observe change over time. Our 1/effort to provide this link was tied to the three budget functions whose programs were more clearly affected by an aging population--income security, health, and veterans. This paper was prepared based on work conducted for the U.S. General Accounting Office. However, the opinions presented are those of the author and do not necessarily represent the views of the U.S. General Accounting Office.

A brief discussion of each of the Federal budget functions to be addressed will be helpful in understanding the analysis in this section:

- First, income security. Income security is the largest and one of the most steadily growing functions in the Federal budget. In 1980, Federal expenditures for income security reached \$193 billion, more than 33 percent of total expenditures. Eighteen years earlier it was 21 percent. Future growth in this budget function is likely to be more modest, reaching 36 percent of Federal expenditures in 2020. The extension of social insurance protection to virtually all Americans who are aged, disabled or unemployed can in part account for this growth.

- Second, health. Health care costs have grown at an astonishing rate for a variety of reasons. This growth erodes the ability of citizens to pay for health care, strains the economy, and burdens the Federal budget. In 18 years, Federal expenditures for health care increased more than fiftyfold, growing from \$1 billion in 1962 to \$58 billion in 1980. Besides growing substantially in dollars, the health function became a more important part of the Federal budget. The health function, representing 1 percent of total Federal expenditures in 1962, became 10 percent of expenditures in 1980. While this function will continue to grow, the growth should be less dramatic reaching \$174 billion or slightly more than 11 percent of Federal expenditures in 2020.

- Third, veterans. The Veterans Administration provides pension and compensation (disability) payments, hospital and medical care, and educational and other benefits to help qualifying veterans or their families. Federal expenditures under the veterans budget function grew

1/Mr. Wilbert W. Ammann, Senior Analyst, for the U.S. General Accounting Office, provided guidance on the methodology used to relate and project program cost and demographic data. Ms. Theresa M. Walter, U.S. General Accounting Office Evaluator, assisted with the computer analysis and prepared graphic presentations of the projected data.

from \$6 billion in 1962 to \$21 billion in 1980 and will grow to \$58 billion in 2020. However, this apparently substantial rise in expenditures for veterans actually represents a decrease in relation to total Federal expenditures. In 1962, the veterans function accounted for 5 percent of Federal expenditures but by 1980 accounted for only 4 percent. The veterans function's relationship to total expenditures will stabilize and remain near 4 percent through 2020.

While we looked at key budget functions and through trend analysis obtained a glimpse of the future, integrating demographics was not feasible at this level. Accordingly, to demonstrate the demographic link, we analyzed historical data for major programs for older people within these budget functions. Historical data is not as readily available for all programs in each function. This is partly due to the fact that many programs for older people were created in the early 1960s.

We used the programs with the richest data sources to do the analysis - namely, Social Security's Old-Age and Survivor Insurance and Disability Insurance, Veteran's compensation and pensions, Veteran's medical care, and Medicare and Medicaid. We did not analyze or select programs for analysis from the Commerce and Housing Credit and the Education, Training, Employment and Social Services budget functions. These two functions had few programs specifically or exclusively for older people and the program data was not maintained in a format we could use in our limited timeframe. Our methodology is described in Appendix I.

Following are brief summaries on the programs analyzed in this section.

Social Security's Old-Age and Survivor
Insurance and Disability Insurance (OASDI)

According to the Social Security Administration's optimistic projections, OASDI's \$124 billion in 1980 benefit payments will become \$1,383 billion in 2020. We can identify three specific causes of the projected increases--inflation, more beneficiaries, and increased real payments and/or eligibilities.

The major cause of increases will be inflation. Inflation will cause \$1,064 billion or 84 percent of the \$1,260 billion increase in benefit payments by 2020.

The second largest cause of OASDI benefit payment increases is growth in the number of beneficiaries. In 1980, OASDI provided benefits to 36 million people and by 2020 about 62 million. This increase in beneficiaries will account for \$155 billion or 12 percent of the total growth in benefit payments by 2020.

Health Care Programs

According to Health Care Financing Administration historical data, national health care expenditures increase for three reasons-- price inflation, population growth and change in the type, frequency and intensity of goods and services used. National health care expenditures were \$42 billion in 1965 rising to \$247 billion in 1980. Price inflation caused from 49 to 73 percent of the annual increase in national health expenditures from 1965 to 1980. Population growth contributed from 7 to 8 percent. Increases due to changes in the mix of health goods and services used, frequency of use and intensity of care ranged from 20 to 43 percent.

Veterans Compensation Programs

Veterans Administration expenditures for compensation (disability payments) and pensions will increase from \$11 billion in 1980 to \$20 billion in 2020. Inflation and increases in the veteran population will cause the vast majority of this increase.

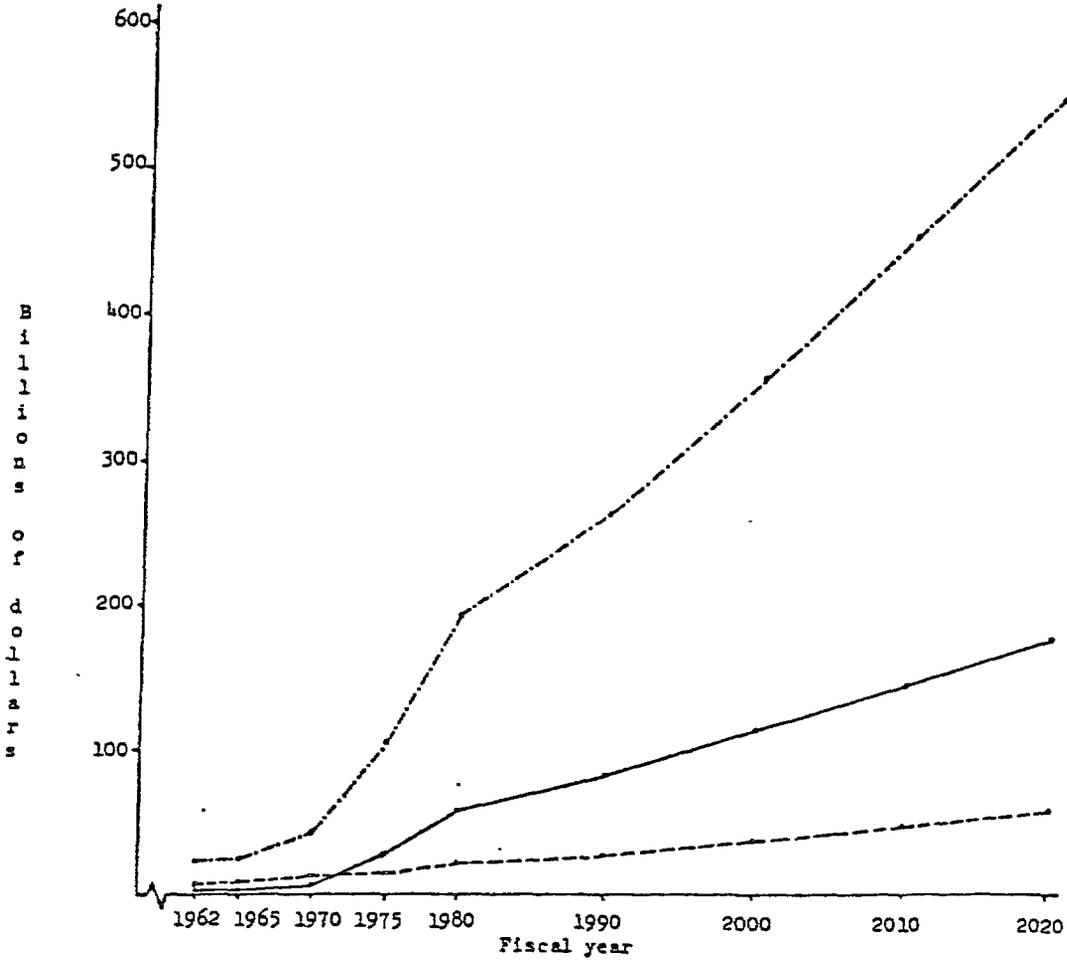
Inflation will cause over \$4 billion increase in veterans compensation and pension costs by 2020. Another \$4 billion of the increased veterans compensation and pension costs will be due to the growth of the veteran population. From 1980 to 2020, the number of veterans will increase from 30 to 40 million and the percentage of veterans 65 years old and older will rise dramatically from 10 to 29 percent.

Veterans Medical Care Programs

Inflation will cause the greatest increase in medical care costs for veterans. The \$6 billion in 1980 veterans medical care costs will become about \$18 billion by 2020. Inflation will account for over \$7 billion of this increase in 2020.

Both the increasing size and age of the veteran population will cause significant increases in medical care expenditures. About \$3 billion of the growth in medical care costs will be caused by the increase in the veteran population. While the sheer increase in numbers will increase costs, the most significant surge in veteran demand for medical services will be due to the aging of the veteran population. In 1980, 10 percent of all veterans were 65 years old and older; by 2020, 29 percent of all veterans will be in this age group.

TREND OF FEDERAL OUTLAYS
FOR SELECTED BUDGET FUNCTIONS



Legend: — Health-budget function 550
 - - - Income security-budget function 600
 - · - Veterans-budget function 700

Source: Projections based on Office of Management and Budget Historical Data. (See Appendix II for statistics.)

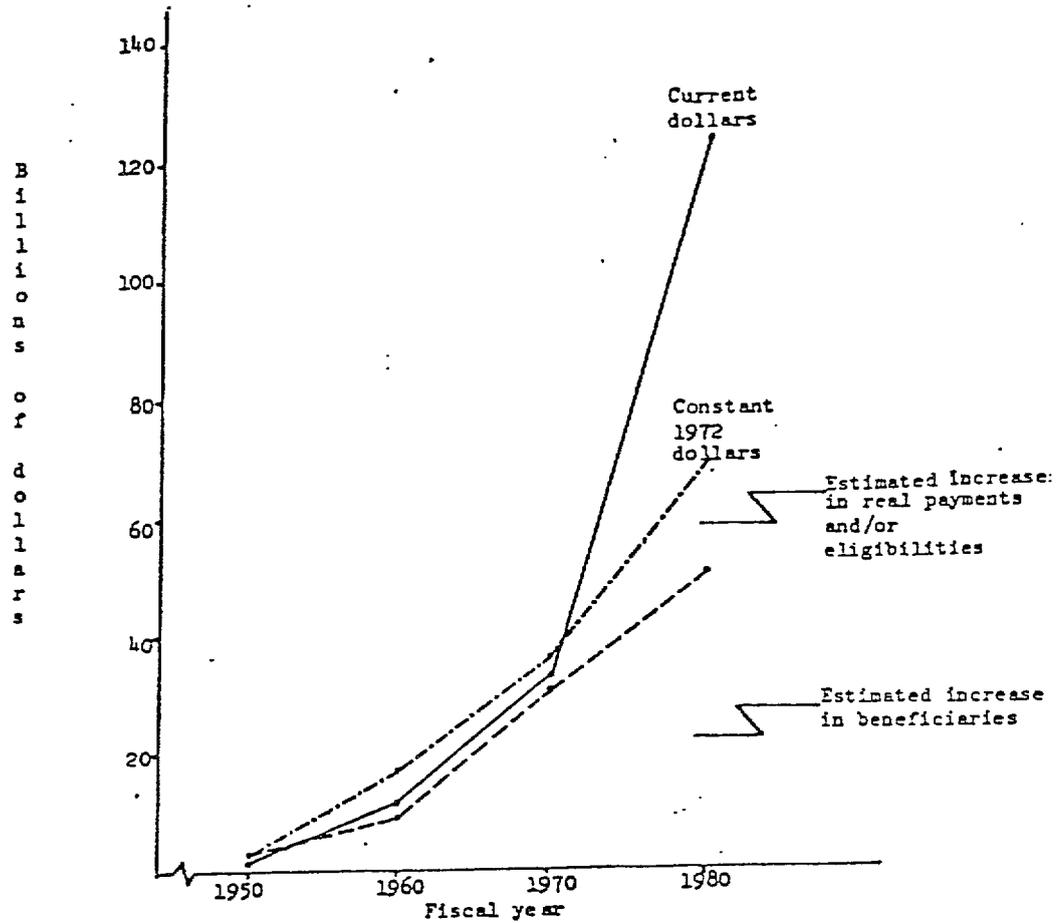
Demographics and Income Security
Programs: Their Interaction

Federal expenditures under the income security budget function increased dramatically from \$23 billion in 1962 to \$193 billion in 1980. The increase is even more startling when you consider that the income security function represented only one-fifth of the Federal budget in 1962, but by 1980 grew to one-third of the total budget. The two largest income security programs are Social Security's Old-Age and Survivors Insurance and Disability Insurance trust funds (OASDI). OASDI benefit payments will account for 60 percent of the income security function in 1982.

According to the Social Security Administration's optimistic projections OASDI's \$124 billion in 1980 benefit payments will become \$1,383 billion in 2020. We can identify three specific causes of the projected increases--inflation, more beneficiaries, and increased real payments and/or eligibilities.

- Using the optimistic projections, inflation will cause \$1,064 billion or 84 percent of the \$1,260 billion increase in benefit payments by 2020.
- The second largest cause of OASDI benefit payment increases in growth in the number of beneficiaries. In 1980, OASDI provided benefits to 36 million people. The optimistic projections show that beneficiaries will increase to 62 million by 2020. This increase in beneficiaries will account for \$155 billion or 12 percent of the total growth in benefit payments by 2020.
- The smallest factor causing growth in OASDI benefit payments is a combination of two elements--real payment increases and expanded eligibilities. The optimistic projections show that this factor will cause \$41 billion or 3 percent of the increase by 2020. Real payment increases would be those not attributable to inflation adjustments. Expanded eligibilities include lowered requirements that would either make more people eligible for benefits and/or current beneficiaries eligible for more benefits.

HISTORICAL TREND OF FEDERAL
OLD-AGE AND SURVIVORS AND DISABILITY INSURANCE (OASDI)
TRUST FUND PAYMENTS SHOWING REASONS FOR INCREASES

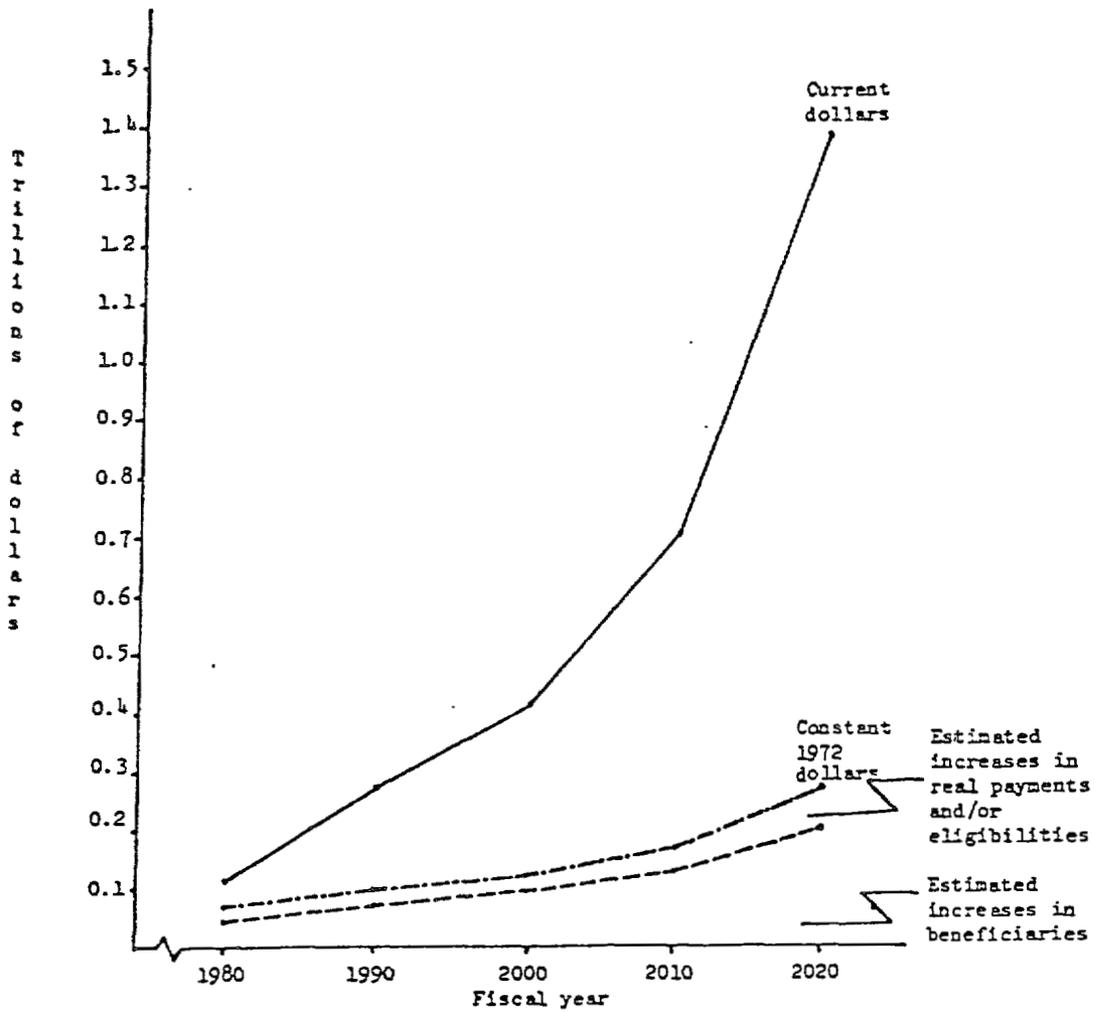


Source: Department of Health and Human Services Social Security Administration, Office of the Actuary Data. (See Appendix II for statistics.)

PROJECTED OLD-AGE AND SURVIVORS AND DISABILITY

INSURANCE (OASDI) TRUST FUND

PAYMENTS SHOWING REASONS FOR INCREASES



Source: Department of Health and Human Services, Social Security Administration, Office of the Actuary Alternative I (Optimistic) Projections. (See Appendix II for statistics.)

Demographics and Health Care
Programs: Their Interaction

According to Health Care Financing Administration historical data, national health care expenditures increase for three reasons-- price inflation, population growth and change in the type, frequency and intensity of goods and services used. Price inflation caused from 49 to 73 percent of the annual increase in national health expenditures from 1965 to 1980. Population growth contributed from 7 to 8 percent. Increases due to changes in the mix of health goods and services used, frequency of use and intensity of care ranged from 20 to 43 percent.

Medicare and Medicaid combined will account for 89 percent of the Federal health expenditures under budget function 550 in 1982. However, information concerning these programs shows that the population's age distribution has a direct bearing on national health care expenditures. Per capita expenditures for people 65 years old and older are higher than expenditures for people under 65. The difference between the two age groups reflects the more serious nature of illness and greater prevalence of chronic conditions among older people. Older people are hospitalized more frequently and for longer periods of time. The National Center for Health Statistics estimates that 81 percent of all persons 65 years old and older have chronic conditions such as heart disease, hypertension, and arthritis.

The Federal government paid an estimated \$31.5 billion for medical care provided to older people in fiscal year 1980. About 3.7 million older people received medical assistance under Medicaid programs. Most of their care was provided in skilled nursing homes and intermediary care facilities. Medicare beneficiaries 65 years old and older (24 million people) incurred most of their health care costs as hospital inpatients.

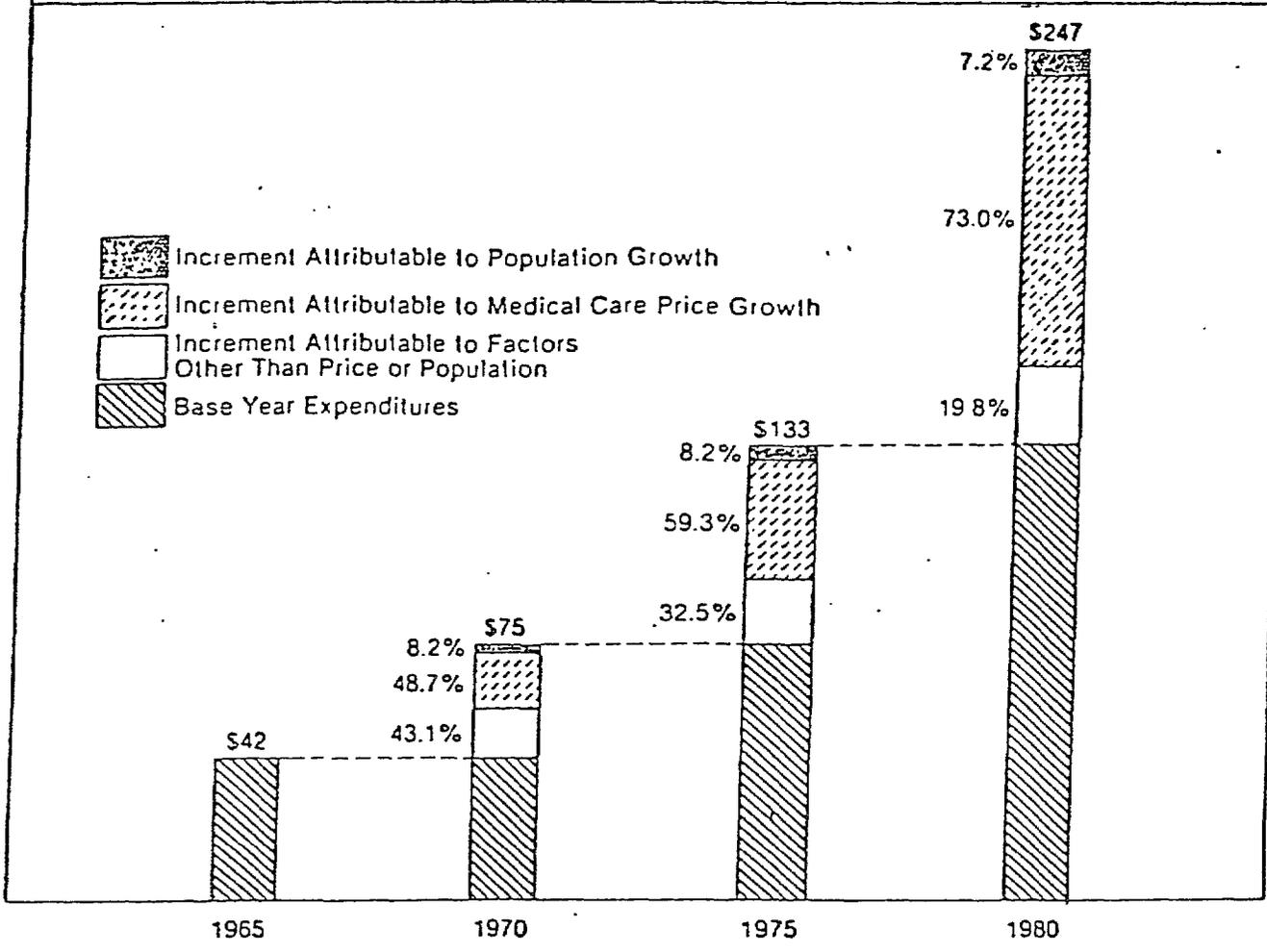
**Factors In the Increase of National Health Care Expenditures
1965-1980**

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-  Increment Attributable to Population Growth
-  Increment Attributable to Medical Care Price Growth
-  Increment Attributable to Factors Other Than Price or Population
-  Base Year Expenditures



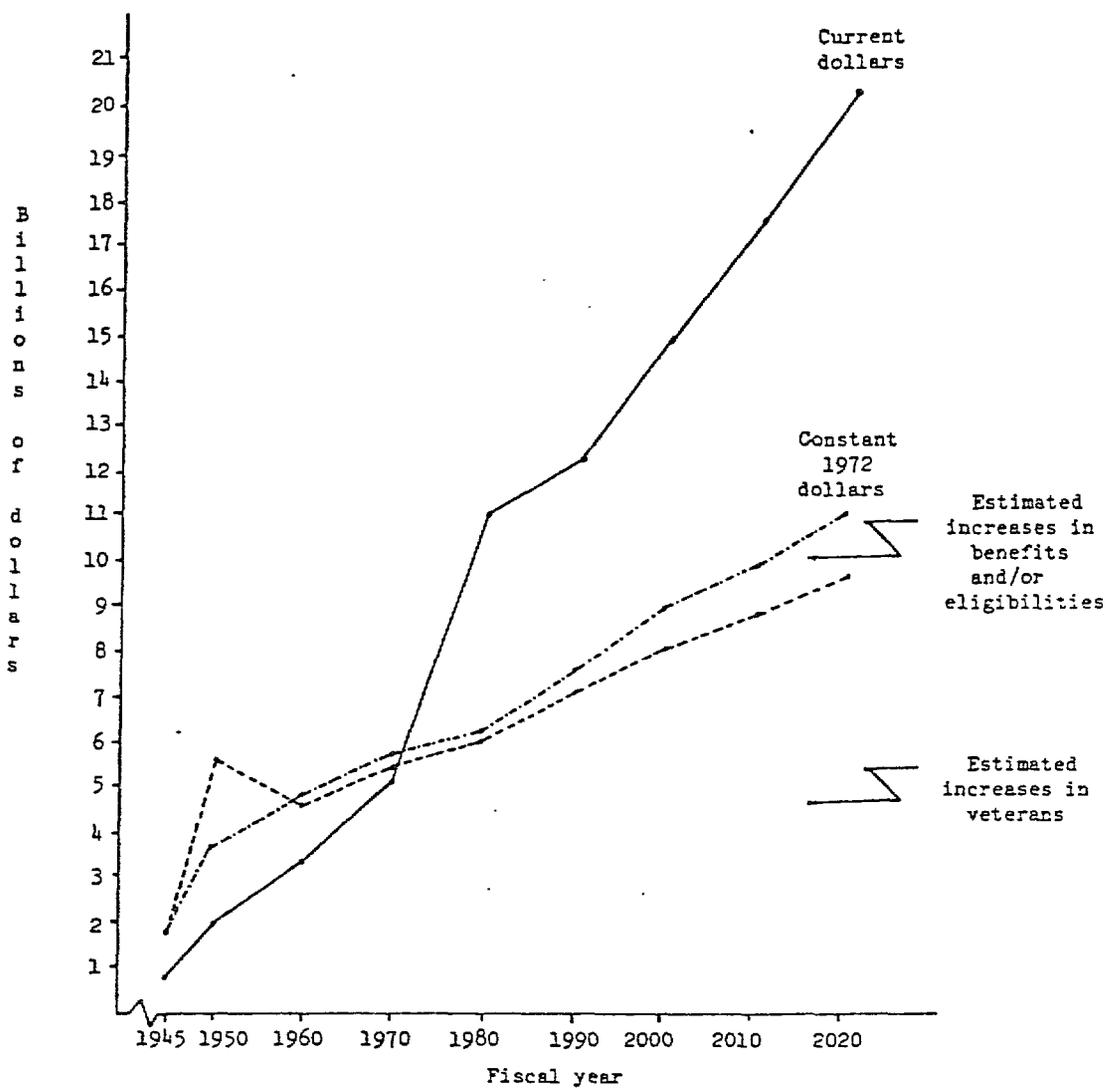
Source: Health Care Financing, Health Care Financing Administration, Office of Research, Demonstrations, and Statistics, September 1981. (See Appendix II for statistics.)

Demographics and Veterans Compensation and Pension Programs: Their Interaction

Veterans Administration expenditures for compensation (disability payments) and pensions will increase from \$11 billion in 1980 to \$20 billion in 2020. Inflation and increases in the veteran population will cause the vast majority of this increase. Increased benefits or eligibilities will have a relatively smaller impact or \$1 billion of the total increase.

- Inflation will cause over \$4 billion increase in veterans compensation and pension costs by 2020. While inflation is the largest single cause of the projected increase, its effect is only slightly greater than the increase in the veteran population.
- Another \$4 billion of the increased veterans compensation and pension costs will be due to the growth of the veteran population. From 1980 to 2020, the number of veterans will increase from 30 to 40 million and the percentage of veterans 65 years old and older will rise dramatically from 10 to 29 percent. The combined effect of a growing and aging veteran population will be an upward pressure on compensation and pension expenditures.

TREND OF VETERANS ADMINISTRATION
COMPENSATION AND PENSION EXPENDITURES



Source: Calculations Based on Veterans Administration Pension and Compensation Data and Bureau of Economic Analysis Implicit Price Deflator. (See Appendix II for statistics.)

Demographics and Veterans Medical
Care Programs: Their Interaction

The three factors causing growth in medical care expenditures for veterans are inflation, a larger veteran population, and increased benefits.

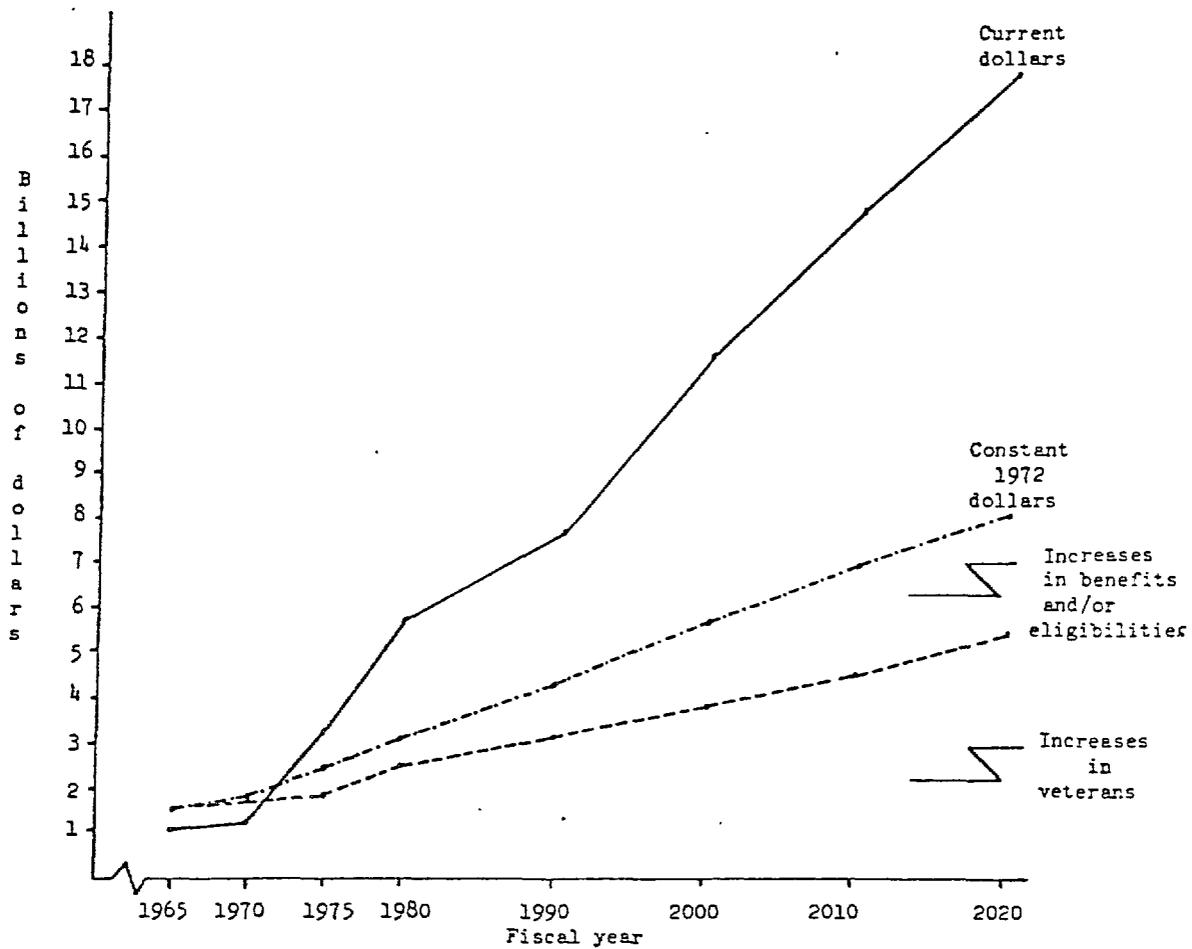
- Inflation will cause the greatest increase in medical care costs for veterans. The \$6 billion in 1980 veterans medical care costs will become about \$18 billion by 2020. Inflation will account for over \$7 billion of this increase in 2020.

- Both the increasing size and age of the veteran population will cause significant increases in medical care expenditures. The number of veterans will grow from 30 million in 1980 to 40 million by 2020. About \$3 billion of the growth in medical care costs will be caused by the increase in the veteran population. While the sheer increase in numbers will increase costs, the most significant surge in veteran demand for medical services will be due to the aging of the veteran population. In 1980, 10 percent of all veterans were 65 years old and older; by 2020, 29 percent of all veterans will be in this age group. According to the Veterans Administration, the number of veterans over 85 years old may be a million or more by 2010, compared to 130,000 in 1977. These 1 million veterans may require 250,000 nursing home beds.

- Additional benefits or increased eligibility for medical services will account for the remainder of the increased veteran medical care expenditures. If veteran medical service benefits continue to grow at the rate they did between 1965 and 1980, over \$2 billion of the total growth in medical care costs will be due to benefit increases or increased eligibility.

TREND OF VETERANS ADMINISTRATION

MEDICAL CARE EXPENDITURES



Source: Calculations Based on Veterans Administration Medical Care Data and Bureau of Economic Analysis Implicit Price Deflator. (See Appendix II for statistics.)

UNITED STATES GOVERNMENT

GENERAL ACCOUNTING OFFICE

Memorandum

August 6, 1984

TO : Director Information Management Branch, GS&C/OADPS - Sharon L. Damon

Walter C. Herrmann, Jr.

FROM : Regional Manager, Detroit - Walter C. Herrmann, Jr.

SUBJECT: Paper for GAO Documents Data Base

Attached are three copies of a paper by William F. Laurie and Patrick A. Iler of my staff which will be presented at the Joint Statistical Association meetings to be held August 13-16, 1984 in Philadelphia, Pennsylvania.

Attachments