U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

Private Capacity to Finance Long-Term Care

March 1983

Office of the Assistant Secretary for Planning and Evaluation

The Office of the Assistant Secretary for Planning and Evaluation (ASPE) is the principal advisor to the Secretary of the Department of Health and Human Services (HHS) on policy development issues, and is responsible for major activities in the areas of legislative and budget development, strategic planning, policy research and evaluation, and economic analysis.

The office develops or reviews issues from the viewpoint of the Secretary, providing a perspective that is broader in scope than the specific focus of the various operating agencies. ASPE also works closely with the HHS operating divisions. It assists these agencies in developing policies, and planning policy research, evaluation and data collection within broad HHS and administration initiatives. ASPE often serves a coordinating role for crosscutting policy and administrative activities.

ASPE plans and conducts evaluations and research–both in-house and through support of projects by external researchers–of current and proposed programs and topics of particular interest to the Secretary, the Administration and the Congress.

Office of Disability, Aging and Long-Term Care Policy

The Office of Disability, Aging and Long-Term Care Policy (DALTCP) is responsible for the development, coordination, analysis, research and evaluation of HHS policies and programs which support the independence, health and long-term care of persons with disabilities–children, working age adults, and older persons. The office is also responsible for policy coordination and research to promote the economic and social well-being of the elderly.

In particular, the office addresses policies concerning: nursing home and community-based services, informal caregiving, the integration of acute and long-term care, Medicare post-acute services and home care, managed care for people with disabilities, long-term rehabilitation services, children's disability, and linkages between employment and health policies. These activities are carried out through policy planning, policy and program analysis, regulatory reviews, formulation of legislative proposals, policy research, evaluation and data planning.

This report was prepared under contract #HHS-100-80-0158 between the U.S. Department of Health and Human Services (HHS), Office of Social Services Policy (now known as the Office of Disability, Aging and Long-Term Care Policy) and the Urban Institute. Funds were also provided by the Administration on Aging. For additional information about the study, you may visit the DALTCP home page at http://aspe.hhs.gov/daltcp/home.shtml or contact the office at HHS/ASPE/DALTCP, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, SW, Washington, DC 20201. The e-mail address is: webmaster.DALTCP@hhs.gov. The DALTCP Project Officer was Phyllis Thorburn.

PRIVATE CAPACITY TO FINANCE LONG-TERM CARE

Marilyn Moon

The Urban Institute

March 1983

Prepared for
Office of Social Services Policy
Office of the Assistant Secretary for Planning and Evaluation
U.S. Department of Health and Human Services
Contract #HHS-100-80-0158

This is an interim report which is subject to revision. Interested users awre advised to contact the author before quoting or citing. The author listed above is responsible for the content and preparation of this report. Dr. William Scanlon of The Urban Institute is the principal investigator for the contract and responsible for overall management. Opinions expressed are those of the author and do not necessarily represent the views of The Urban Institute or its sponsors.

TABLE OF CONTENTS

A CONCEPTUAL APPROACH TO ASSESSING RESOURCES FOR FINANCING LONG-TERM CARE 2

Determining the Group to Study 2

Resources Available for Financing Long-Term Care 3

EMPIRICAL RESULTS FOR THE ELDERLY 8

The Distribution of Income 8

Assets and Homeownership 10

Alternative Resource Definitions 12

Discretionary Income 17

Evaluating the Empirical Results 18

EMPIRICAL RESULTS FOR IMPAIRED PERSONS 21

Defining Impairment 21
Characteristics of Impaired Persons and Their Families 21
Defining Resources 24
The Ability to Finance Private Care 28

FUTURE DIRECTION FOR RESEARCH 29

Families or individuals facing needs for long-term care services are likely to experience a severe drain on financial resources. Currently, the public sector contributes to long-term care almost exclusively through the Medicaid program for low-income persons and, to a very limited extent, through Medicare. Most states provide Medicaid coverage for low-income persons who require institutionalization. Individuals with incomes or assets too high to be eligible but who are in need of long-term care must either "spend down" their resources until they become eligible for Medicaid or privately finance their own care. In practice, many institutionalized individuals, particularly the elderly, start out using their own resources but turn to Medicaid once they have exhausted their assets. Home-based care is only available through an ad hoc combination of social service and medical programs that are unlikely to comprehensively provide a full complement of activities. Thus, in this area, the disabled individual must privately finance much of the care. In addition, policy makers are becoming increasingly concerned about the high costs of public sector programs, prompting debate on whether eligibility for Medicaid can be further restricted and/or whether beneficiaries can be asked to contribute more towards their own care.

This paper considers ways to determine the ability of users to contribute to the cost of their care. When better estimates of the costs of long-term care are known, the figures developed here can be used to indicate where shares of the health expenditure burden could be borne privately by individuals. For this analysis, two groups of households are considered: the elderly and all households reporting having a member with some degree of physical impairment. While many persons 65 and over remain in good health, this group is particularly at risk in terms of someday requiring long-term care services. Families who already have at least one member with some physical impairment are also potential consumers of long-term care.

The first section of this paper raises conceptual issues relating to private financing of health care. These issues are subdivided into two broad questions: how to identify persons likely to need long-term care and how to determine what resources are available for use in defraying such expenses. A second section discusses results from an empirical study of the resources of the elderly and a third section reports results on the physically impaired. The last section of the paper outlines some expected directions for future work in this area.

A CONCEPTUAL APPROACH TO ASSESSING RESOURCES FOR FINANCING LONG TERM CARE

Any careful consideration of public participation in long-term care financing should consider the level of resources below which individuals are unable to provide care for themselves. This threshold depends not only on the income of the individual and/or his family, but also on savings and other assets held, other potential sources of help, the type of care required, and additional obligations of the family unit. Although such information could be gathered on all individuals, it is of most interest for those who are at risk of needing care.

Determining the Group to Study

To assess the ability of individuals to contribute to the cost of long-term care, we should ideally study only persons who will need such services. Individuals currently receiving this care may have already exhausted their assets and made adjustments over time in ways that would provide a distorted picture about persons just beginning to require care. Moreover, few studies examine institutionalized persons and those who receive home-based care are difficult to identify on available surveys, thus making current long-term care recipients difficult to study.

At the other extreme, it is not particularly helpful to know the income distribution of the entire population to predict ability to finance long-term care. It is highly unlikely that potential long-term care users are evenly distributed throughout the population with regard to their level of financial resources. Rather, the elderly and those with previous health limitations are more likely to need such care and their resources are likely to be lower on average. Within the elderly, persons needing long-term care are likely to be the oldest of the old. At that age a general deterioration in health is likely to lower the individual's ability to provide for his or her own physical well-being. For younger persons, those with a long history of health problems are in greater potential need of services. Although accidents or acute illnesses that require long recuperative periods may strike randomly across the population, it is nonetheless reasonable for this study to focus on those subgroups of the population.

Another issue which arises in focusing on the group for study is the type of care likely to be demanded. For example, services delivered in an institutional setting often pose more out-of-pocket costs than care in the home. An institution provides complete shelter as well as medical care. For a single individual, the institution substitutes for maintaining a household in the community. All of that individual's resources would be available to finance their institutional care. On the other hand, when a family member enters an institution, the need to maintain the household remains. The cost of doing so will only be marginally reduced. Since disabled persons who remain at home may receive an implicit in-kind transfer from a relative providing some necessary services, the observed cost of that care may seem to be lower. However, demands on the caregiver may affect the ability of the family to maintain a particular income level. Ability to finance care, therefore, ought to be based on different considerations for those who

remain at home than for those who are institutionalized. Thus, when possible, it is important to anticipate the type of care demanded.

A disabled person is more likely to remain at home if a caregiver--usually a spouse--is also present and if few other demands are placed on the family.[1] Consequently, in single person households and households with young children, home-based care is less feasible than in families consisting of only a husband and wife (or only adults).[2] Homeownership is also likely to play a role. Persons owning their homes may have a large stake in remaining there rather than entering an institution. For a single person who enters a nursing home, however, an owned home may be used to support private care. Consequently, this analysis will highlight the empirical results by homeownership and family composition categories.

Resources Available for Financing Long-Term Care

Family income is the most important indicator of ability to purchase long-term care. Income levels may change, however, with the onset of disability and any consideration of capacity for providing care should take this into account. Consequently, source of income becomes very important. In addition to income, a family's assets provide a potential source of funds. Since long-term care needs are likely to extend over time, only a portion of assets should be considered as a source of support in any given year. Other resources, such as in-kind transfers, may be from the private sector--through subsidized health insurance from employers, for example--or from the public sector--in the form of food stamps or Medicare and Medicaid eligibility. Perhaps the most important in-kind transfer would be help provided by the spouse or other relative when a disabled person remains at home. Finally, demands on income or resources for the provision of necessary goods and services to other family members reduce the amount available for purchase of long-term care.

Income. Income can be treated in a straightforward manner as a resource for financing long-term care. As, a yearly flow, this represents a renewable source of funds. Realistically, however, a measure of available resources should probably distinguish between sources of income that will and will not change with the health of family members. For example, Social Security benefits and other pension income already being received are independent of health status. Similarly, cash transfers from government programs such as Supplemental Security Income (SSI) for the elderly will probably also remain unchanged if a current beneficiary becomes physically impaired. In contrast, income from wages and salaries of a newly disabled family member would likely fall to zero. Other family members may also reduce their labor force participation if they are needed to provide care at home. Rent, interest and dividend income from assets may also decline if the family is forced to reduce savings to cover medical expenses. This latter issue will be discussed further in the context of the treatment of net worth.

It is also possible that some income sources may actually increase, although not usually enough to compensate for the losses described above. Other family members

---

[1] Obviously the degree of impairment is a particularly critical factor. Home-based care cannot substitute for institutional care in all instances - or at least it cannot always serve as a lower cost alternative.

[2] Families with older children may also be able to divide up the responsibility for care among all their members.

may enter the labor force or increase hours worked to partially compensate for one member's lost salary, particularly if the disabled person is not cared for at home. A disabling illness or accident may make an individual eligible for veterans, disability or retirement benefits that partially replace lost earnings. These may be from privately funded insurance benefits or from Social Security, SSI or other government programs. Employees with particularly good health and disability coverage may end up with after-tax income as high as or higher than pre-disability after-tax income. This is, however, likely to be the exception rather than the rule. Moreover, since a substantial portion of persons who will require long-term care will be over 65, it is unlikely that their post-disability incomes will be higher. In most cases elderly persons already receive retirement benefits which generally preclude any additional eligibility for disability benefits.[3] On balance, then, earnings of the impaired individual ought to be subtracted from income, but offset by any increase in transfer payments from government programs or private insurance. Since the work response of other family members could either increase or decrease if a family member became in need of long-term care, empirical analysis should probably assume no change in behavior.

For this analysis, several approaches are used since replacement income estimates are not available. The section on elderly individuals is restricted to single individuals living alone and couples where one member is over 64. The first approach assumes that all labor income would fall to zero. The elderly spouse of a disabled person may find it difficult to continue working, particularly if the impaired individual remains at home. This lower bound estimate of resources can then be contrasted to total income to show the sensitivity of a family's financial capacity to wage and salary income. A second approach is to focus on those elderly without earnings. Such individuals are more likely to be at risk and their incomes have already been adjusted for the retirement transition in which transfers partially replace lost earnings.

For the section on impaired individuals of all ages a different adjustment is used. Family size in such households is often greater than two, increasing the possibility that some family members could continue to work. Thus, for the results in this section, only the earnings of the impaired person are subtracted from income. No adjustments are made for potential substitutions of disability benefits.

Net Worth. Some reasonable calculation of the contribution of assets should be added to the measure of income. However, if all net worth (assets minus liabilities) were included in one year, an unrealistically high estimate might result. The family could spend down all resources in a particular year but then be unable to provide care the next, if the period of disability lasts beyond a year. Consequently, only a portion of net worth should usually be added to income, implicitly assuming that a family would use up its resources over a period of years. The value of a family's net worth could be converted to an annuity--indicating a stream of resources that would provide equal additions to income in each year.[4]

---

[3] For example, Social Security benefits to persons 65 and over are based on retirement calculations, regardless of whether that older individual is also disabled. Similarly, veterans pensions for nonservice connected disabilities are available to otherwise eligible veterans 65 and over regardless of health status.

[4] On the other hand, stringent asset limits for public support and the belief that long-term care needs will not extend beyond a year may cause persons to spend all their resources rapidly. To illustrate the impact of such behavior, the empirical section for the elderly will include one alternative resource measure based on full consumption of net worth.

In the case of the elderly, remaining life expectancy may serve as a rule of thumb for the appropriate period for consuming net worth. For this age group, disability is likely to be permanent. Using life expectancy as the number of years in an annuity equation, however, yields the troublesome result that persons who expect to live longer are less well off in any one period. in addition, life expectancy tables reflect average rates across the population as a whole. In this study, we concentrate on persons with physical impairments or in poor health--conditions likely to shorten life expectancy over that in published tables. Consequently, two annuity calculations are made for the elderly--using five and ten year periods--rather than differential periods for each family.[5] Five and ten year estimates are also used when considering younger families with impaired members. Although such periods would greatly understate life expectancy of younger family members, disability for the younger person may be shorter and other types of resources available to such a family are likely to change over time.

The more liquid the asset, the simpler is a gradual consumption of it over time. Stocks, bonds and savings accounts can be drawn down in increments. However, interest in a business or ownership of property may be difficult to convert into cash in the short run. High interest rates in recent years have made it particularly difficult to sell such assets and costly to borrow against them. Therefore, it may be misleading to include the full market value of these assets in an annuity calculation.

The treatment of an owner-occupied home also poses other problems. The home is an important contributor to the well-being of a family in two ways: it represents an asset that can be sold to raise revenue and it offers a flow of services to the owner. Sale of this asset precludes its use as a source of inexpensive housing (particularly if the home has little or no mortgage remaining). Moreover, as discussed earlier, an owned home may provide added motivation for a disabled person to remain out of an institution.

In a world of lower interest rates and better capital markets, families could more readily borrow against some of their home equity over an extended period of time. Reverse annuity mortgages, for example, have been widely discussed.[6] In practice, however, few of these innovative programs exist except as limited demonstration projects. High interest rates have slowed development of such programs. At present then, it may not be realistic to assume partial liquidation of an owned home to meet long-term financial needs. Consequently, owned homes will be included in the analysis here but annuities are calculated both with and without the home. In addition, results will sometimes be separated to isolate homeowners from those who rent or receive free housing.

In-Kind Transfers. Resources received in the form of goods and services contribute to the well-being of individuals and--directly or indirectly--to their ability to finance necessary long-term care. The usual source of such help is from government programs or from relatives.

---

[5] For a discussion of the use of life expectancy in annuitizing the value of net worth for the elderly, see Moon (1977).

[6] These give homeowners a lump sum or periodic payments in exchange for transfer of the owner's equity to the lender at some future date. See, for example, Schoelen (1980) for a thorough discussion of reverse annuity mortgages and other types of home equity conversion.

Low income households are the major recipients of government sponsored in-kind transfers in the form of food, public housing and medical care. Food stamps are viewed by many as nearly equivalent to cash in the eye of recipients. Thus, the subsidy value of these benefits can be readily incorporated into an income measure. Public housing programs provide benefits to only a small portion of the low income population and benefits to the recipients are almost certainly lower than the cost of providing them.[7] In this study, only food stamp benefits are included.

Goverment medical transfers include Medicaid and Medicare. Medicare is not restricted to low income persons; rather, all aged and disabled persons eligible for Social Security may participate in Medicare. Although the medical transfers certainly increase the well-being of families, they do not directly enhance a family's ability to **privately** provide care. Consequently, the value of these benefits are not included in the income measure.

Another important potential resource for a newly disabled person would be help from relatives outside the home. Particularly for the elderly, intra-household transfers in cash or in services--such as relatives helping with meal preparation or housework--may provide important supplements to income. Since many families not currently providing support to others may do so when a crisis arises, the extent of such aid is impossible to determine before the fact. Some information could be gleaned by looking at the proportion of disabled persons currently receiving such help, although data on the extent of such resource sharing are seldom gathered and are subject to underreporting. These transfers are picked up as income only when provided consistently over time and in cash. Information that is available suggests that family relationships are more important than need for care in determining whether relatives provide help. Thus, if a health care crisis arises, some but not all persons would receive help from relatives, making it difficult to identify likely recipients and to estimate the extent of such aid. Consequently, this important in-kind transfer cannot be studied here.

Discretionary Resources. Even after predicting adjusted "post-disability' resources, not all remaining resources would be available for purchasing long-term care. First, direct taxes should be subtracted, since individuals are required to pay such liabilities. Other family members require some portion of the income. moreover, a disabled person who wishes to remain at home also faces basic food and shelter costs. Only in the case of a single individual facing institutionalization is it realistic to allocate all of resources to long-term care.[8]

Thus, some measure of discretionary resources--an amount available after the basic necessities are purchased--is a more appropriate indicator of ability to finance catastrophic care. A conservative estimate of discretionary resources can be obtained by subtracting housing expenses--including utilities--and food from resources. Other expenditures, such as those for clothing and transportation, could arguably also be included as necessities but few would disagree with using housing and food. This more restricted approach may therefore overstate a family's ability to provide for long-term care, but will be used to indicate an upper bound on available resources. In addition, calculation of tax liabilities for the elderly is a task beyond the scope of this paper.

---

[7] See , for example, Bureau of Census (1982), for a discussion of the appropriate treatment of in-kind transfers.

[8] Indeed , when single, low income persons qualifying for Medicaid enter institutions, all but $25 per month of their incomes are currently used to help defray the costs of care.

Individuals living alone are more likely to require an institutional setting if long-term care is needed. In such instances all resources would be available for purchasing such care since housing and food would be included at the nursing facility. Similarly, some adjustments to discretionary resources might also be appropriate in larger families where one member enters an institution. Housing costs are unlikely to change substantially but outlays on food could fall, particularly in small families.

The estimates of discretionary resources used here compare food and housing expenditures only to income because of limitations on available expenditure data. It would, of course, be more appropriate to develop a measure of discretionary resources--dollars available after making appropriate adjustments for assets and in-kind transfers to income and then subtracting housing and food expenditures. Unfortunately, data limitations make this a complex task and, therefore, a formal measure of discretionary resources is beyond the scope of this paper. The importance of such other factors will be discussed briefly.

In summary, the best measure of a family's ability to finance long-term care would begin with an estimate of post-disability income that recognizes likely adjustments among the various income sources of the family. Expenditures on basic necessities would then be subtracted from post-disability income while an annuitized share of net worth adjusted for liquidity problems and the value of in-kind transfers received would be added.

EMPIRICAL RESULTS FOR THE ELDERLY

The results presented in this section represent a first step in evaluating the ability of a majority of the elderly to contribute to the costs of long-term health care. Inevitably, some of the procedures described in the preceeding section must be modified to reflect the limitations of available survey data. In addition, the results presented here focus on single-person households and households consisting only of husband and wife. Over four-fifths of the elderly reside in such households. The small minority of the aged living in more complex families are included in the next section on impaired individuals.

The empirical work in this section and the next is based on two national surveys: the Survey of Income and Education (SIE) and the Survey of Consumer Expenditures (SCE). The larger and more recent (1976) SIE serves as the basis for the income estimates. The SCE provides information about expenditures on housing, food and other consumer goods. These expenditures are converted into a percentage of income in order to calculate a discretionary income figure using the SIE. The limited size of the SCE requires that the elderly be divided into fewer subgroups for analysis than would be possible if only the SIE were used. Nonetheless, these two data sets together provide a rich array of information.

The SCE estimates presented are expressed in 1976 dollars to make them commensurate with the SIE data. Median income for persons 65 and over was used to deflate the SCE income categories. No attempt has been made, however, to age the data to 1982. To do so properly would require considerable effort and expense that cannot be justified by the quality of the results. Rather, it is more appropriate to consider how the situation of the elderly has changed since 1976.

Real incomes of the elderly have grown slightly although the growth of the Consumer Price Index has been at nearly the same rate as nominal income for those 65 and over. Although the elderly may, on average, be better off now than in 1976 in terms of income, those who are in poor health may not have fared so well. The rate of growth of the price of medical care has exceeded the rates for income and for other prices. Consequently, for the elderly with high out-of-pocket medical costs, expenses are likely to have outstripped ability to pay for such care. Coverage of services from public sources has declined somewhat since 1980, particularly under Medicaid.

The Distribution of Income

Table 1 presents some basic income statistics for the elderly disaggregated by family composition, age and income class and Table 2 shows the distribution of income by an even finer age breakdown. As discussed earlier, persons over 75 are likely to be more at risk in terms of facing chronic health problems. On average, they are concentrated in lower income categories than are their younger counterparts, with over three-fourths of all single-person households having income of less than $5,000 per year. Couples over 75 are better off, but also face higher expenses.

In every instance, the vast majority of income for the oldest families does not come from wages or salaries. Consequently, a deterioration in health status would not lower the financial resources as much as for those aged 65 through 74. Families with the

greatest resources are, however, more susceptible to loss of earnings. More than one third of average incomes of couples aged 65 through 74 in the highest bracket comes from wages and salaries.

Persons living alone, who are more likely to require expensive institutional care if disabled, are concentrated in the lower income brackets. Less than 10 percent of the younger elderly individuals and just over 6 percent of those over 75 have incomes in excess of $10,000. From income alone, it appears that few of the elderly could privately finance either care at home or care in an institution.

TABLE 1. Distribution of Income By Family Characteristics for Families with Head Aged 65 and Over (1976 data)

Family Characteristics	Income Class (1976 dollars)			
	Up to $5,000	$5,000 - 10,000	$10,000 - 15,000	$15,000 or above
HEAD AGED 65-74				
Single Person Household				
Percent of Families	64.5	25.8	5.8	3.9
Mean Income	$2,959	$6,901	$12,079	$23,338
Mean Wages	$155	$1,189	$2,758	$6,234
Wage as % of Income	5.3	17.2	22.8	26.7
Two Person Household				
Percent of Families	18.8	40.8	19.2	21.2
Mean Income	$3,675	$7,296	$12,334	$26,404
Mean Wages	$207	$949	$3,339	$9,395
Wage as % of Income	5.6	13.0	27.1	35.6
HEAD AGED 75 OR ABOVE				
Single Person Household				
Percent of Famlies	76.5	17.3	3.2	3.0
Mean Income	$2,830	$6,820	$12,025	$25,962
Mean Wages	$34	$263	$888	$3,333
Wage as % of Income	1.2	3.9	7.4	12.8
Two Person Household				
Percent of Families	29.1	44.3	13.5	13.1
Mean Income	$3,652	$7,000	$12,027	$27,560
Mean Wages	$63	$381	$1,047	$3,915
Wage as % of Income	1.7	5.4	8.7	14.2
SOURCE: Survey of Income and Education.				

As a first approximation of post-disability income, we could subtract earnings from total income. Since these are families with no more than two earners we would assume that the disabled person and the likely caregiver would leave the labor force if they have not already done so. Since many elderly do not participate in the labor force, it is somewhat deceptive to focus on the change in the mean income from this adjustment.

Those who had no earnings will be unaffected, while those who had earnings will have income reductions much larger than the change in average income. Moreover, this adjustment would understate post-disability income for families with earners, since transfers would likely replace some of these lost earnings.

TABLE 2. Distribution of Income for Elderly Couples and Individuals by Age of Head (1976 Data)					
Income Level	Age of Head				
	65-69	70-74	75-79	80-84	85 and Above
$2,500 and less	11.7%	12.3%	16.7%	22.1%	29.1%
$2,501 - 5,000	24.4	32.5	37.1	39.5	41.0
$5,001 - 10,000	33.3	34.5	29.6	27.1	20.3
$10,000 - 15,000	15.0	10.5	8.6	5.3	4.8
$15,001 and above	15.5	10.3	8.0	5.9	4.7
Total	100.0%	100.0%	100.0%	100.0%	100.0%
SOURCE: Survey of Income and Education.					

Alternatively, this analysis could focus only on nonearners among the elderly. Since those still in the labor force are generally in good health, they are unlikely to be in need of long-term care in the near future.[9] This distinction is most important for those under 75 (as shown in Table 3) since few persons remain in the labor force after that age. These younger non-earners have lower levels of income on average than the earners and their distribution is more concentrated in the under $10,000 income categories.

Where feasible this analysis will focus on nonearners. In order to keep the various cell sizes large, however, some of the aggregate data presented will be based on all the 65 and over age group rather than just nonearners.

Assets and Homeownership

Most of the elderly own their homes. The percentage of homeowners tends to rise with income, with the exception of those in the highest income bracket (see Table 4). In addition, couples are much more likely to own a home than are individuals living alone. There are few major differences by age group.

The finding of such a large proportion of ownership is important since homeownership helps to ensure lower housing costs for the elderly. Moreover, two-person families are more likely to try to support one disabled member in the home. The high proportion of homeowners is likely to further enhance the family's desire to keep the disabled member out of an institution, and, in the future, wherever possible, results will be disaggregated by homeownership.

[9] Certainly , an illness such as a stroke or heart attack may result in a rather sudden change in health status among this age group.

TABLE 3. Distribution of Income for Elderly Couples and Individuals Without Earnings By Age of Head (1976 Data)					
Income Level	Age of Head				
	65-69	70-74	75-79	80-84	85 and Above
$2,500 and less	18.5%	15.5%	19.5%	24.5%	31.1%
$2,501 - 5,000	33.2	38.3	41.2	41.3	41.9
$5,001 - 10,000	33.4	32.7	27.9	25.9	20.0
$10,000 - 15,000	9.3	8.2	7.1	4.4	3.8
$15,001 and above	5.7	5.4	4.4	3.9	3.1
Total	100.0%	100.0%	100.0%	100.0%	100.0%
SOURCE: Survey of Income and Education.					

TABLE 4. Percentage of Homeowners by Income and Family Characteristics (1976 data)				
Family Characteristics	Income Class			
	Up to $5,000	$5,000 - 10,000	$10,000 - 15,000	$15,000 or above
HEAD AGED 65-74				
Single Person Household	54.8	64.0	70.1	63.1
Two Person Household	76.5	83.7	85.2	85.2
HEAD AGED 75 OR ABOVE				
Single Person Household	56.7	63.8	60.7	73.1
Two Person Household	76.6	80.7	83.9	80.0
SOURCE: Survey of Income and Education.				

Dividend and interest income is presented in Table 5. The amounts are indicative of asset holdings.[10] The averages rise dramatically across income class, becoming a substantial share of the income of those in the upper brackets. Single-person households and families headed by someone over 75 have the highest average property income in each income class. For these people, Social Security, pensions and earnings are all less, on average than for younger couples. Consequently, such individuals must primarily rely on past savings to place them in the higher income brackets The "old" elderly with incomes above $10,000 thus have substantive assets on which to draw. Any calculation of the dissaving of assets based on life expectancy will also raise the well-being of the over 75 age group relative to those aged 65 to 74. Thus, a table incorporating the annuity value of these assets would show even greater disparity between age groups.

[10] This income source is used below to estimate net worth and convert it into an annuity. Such an adjustment will understate net worth by failing to capture assets that do not yield an income flow. In general these are the less liquid assets.

Alternative Resource Definitions

Thus far the discussion has considered the potential importance of various sources of income. These can now be combined to consider their net impact on a measure of total resources. Four basic definitions are presented in Table 6 and Table 7 which focus on all one- and two-person elderly households:

- Income minus earnings;
- Income minus earnings plus the net benefit amount of food stamps;
- Income minus earnings plus the net benefit amount of food stamps and a partial 10 year annuity which omits the value of housing; and
- Income minus earnings plus the value of food stamps and a "full" 10-year annuity which includes housing in the calculation.

TABLE 5. Average Interest and Dividend Income by Income and Family Characteristics (1976 data)

Family Characteristics	Income Class			
	Up to $5,000	$5,000 - 10,000	$10,000 - 15,000	$15,000 or above
HEAD AGED 65-74				
Single Person Household	$278	$1,515	$3,636	$9,317
Two Person Household	235	866	1,907	6,783
HEAD AGED 75 OR ABOVE				
Single Person Household	317	2,227	4,635	12,791
Two Person Household	255	1,043	3,286	10,094

SOURCE: Survey of Income and Education.

For all elderly, the addition of food stamps makes little difference to mean resources. Rather, the important increase arises from the annuity. The third definition is higher by about 25 percent for both singles and couples. When the net worth of the home is included in the annuity, resources rise by 55 percent for singles and 61 percent for couples over the income minus earnings definition.

The annuity figures would be even higher if 5 year annuities are calculated (not shown in tables). For example, using the third definition with a five year annuity would raise resources to $6,670 and $12,078 for singles and couples, respectively. The figures, when the value of an owned home is included, rise to $8,845 and $16,539. The longer 10 year period is used in the remaining tables as a more reasonable estimate of the contribution of assets to financing long-term care. This is particularly important if the value of the home is included in the measure.

TABLE 6. Mean Resources of Elderly by Age and Family Size Using Alternative Definitions of Resources (1976 Data)						
Resource Definition	Age of Head					
	65-69	70-74	75-79	80-84	85+	All Elderly
ELDERLY PERSONS LIVING ALONE						
Income Minus Earnings	4052	4509	4277	3895	3950	4191
Income Minus Earnings Plus Food Stamps	4072	4523	4292	3909	3969	4207
Income Minus Earnings Plus Food Stamps and Partial 10 year Annuity*	4959	5620	5309	4791	5159	5204
Income Minus Earnings Plus Food Stamps and Full 10 year Annuity*	6324	6993	6594	6001	6272	6508
ELDERLY COUPLES						
Income Minus Earnings	7075	8051	7831	8028	6671	7438
Income Minus Earnings Plus Food Stamps	7090	8065	7846	8042	6681	7452
Income Minus Earnings Plus Food Stamps and Partial 10 Year Annuity*	8855	10117	9743	10377	8245	9323
Income Minus Earnings Plus Food Stamps and Full 10 year Annuity*	11676	12847	12230	12742	10438	11986

* Partial annuity excludes the value of the home. Full annuity includes net worth of home in calculations.
SOURCE: Survey of Income and Education.

Table 6 disaggregates average resources by age. Singles and couples in the age 65 through 69 range have lower resources than some of their older counterparts because earnings have been subtracted. These younger families will consequently have lower income from retirement programs, for example, because they are still in the labor force. In general, resources of the elderly decline with age. The 85 and older singles are an exception, although the sample size for this group is quite small.

If the sample is restricted to the nonworking elderly, the appropriate alternative measures also differ somewhat. An expanded set of alternative definitions of resources are shown in Table 7. These include:

- Income;
- Income plus food stamps and partial 10 year annuity;
- Income plus food stamps and full 10 year annuity;
- Income plus food stamps and full 5 year annuity; and
- Income plus food stamps and full value of assets.

TABLE 7. Mean Resources of Nonworking Elderly by Age and Family Size Using Alternative Definitions of Resources (1976 Data)					
Resource Definition	**Age of Head**				
	65-69	**70-74**	**75-79**	**80-84**	**85+**
ELDERLY PERSONS LIVING ALONE					
Income	4,468	4,583	4,226	3,839	3,803
Income Plus Food Stamps and Partial 10 year Annuity*	5,409	5,666	5,181	4,672	4,888
Income Plus Food Stamps and Full 10 year Annuity*	6,716	7,025	6,443	5,842	5,995
Income Plus Food Stamps and Full 5 year Annuity*	8,951	9,516	8,681	7,842	8,314
Income Plus Food Stamps and Full Value of Assets	44,199	45,003	41,504	39,724	42,689
ELDERLY COUPLES					
Income	8,612	8,657	7,938	7,905	6,416
Income Plus Food Stamps and Partial 10 year Annuity*	10,317	10,756	9,742	10,093	7,723
Income Plus Food Stamps and Full 10 year Annuity*	12,930	13,442	12,114	12,388	9,939
Income Plus Food Stamps and Full 5 year Annuity*	17,183	18,328	16,352	17,141	13,351
Income Plus Food Stamps and Full Value of Assets	56,694	67,749	58,098	58,808	48,085

* Partial annuity excludes the value of the home. Full annuity includes net worth of home in calculations.
SOURCE: Survey of Income and Education.

Since these are nonearners, it is not necessary to subtract earnings for any of the resource measures. The two extra alternatives are included to demonstrate the importance of assets and the sensitivity of a measure of resources to the procedure for allocating assets. Using a five year annuity rather than a 10 year annuity raises the average resource level by about one-third.[11] If all assets were included--assuming that an individual should be liable for paying up to the full value of his or her assets from the beginning--the amounts are much higher, averaging over $40,000 for single persons, for example. Again, as was the case with income, alone, results in Table 7 are similar to those in Table 6 for persons over 75 but quite different for younger elderly couples and individuals.

In Table 8, means of the first four of these measures are also shown by homeownership, sex and race. Homeowners are better off than renters, even if definitions three and four (which include the value of the home) are not considered (see Table 8). The mean resource levels of whites are nearly twice as high as those of other races. Women live alone more frequently than men and with a lower level of resources.

[11] In addition, the interest rate assumption used to calculate the annuities affects the results. Figures in the text and tables assume an interest rate of 8 percent. If instead 4 percent were used, the means of the fourth definition would rise by about 15 percent.

TABLE 8. Mean Resources of Nonworking Elderly by Family by Family Size and Selected Characteristics Using Alternative Definitions of Resources (1976 Data)						
Resource Definition	Homeownership Status		Race		Sex	
	Own	Rent	White	Other	Male	Female
ELDERLY PERSONS LIVING ALONE						
Income	$4,543	$3,976	$4,403	$2,740	$4,863	$4,134
Income Plus Food Stamps and Partial 10 year Annuity*	5,774	4,630	5,542	3,015	5,761	5,128
Income Plus Food Stamps and Full 10 year Annuity*	7,975	4,630	6,782	3,461	6,984	6,405
Income Plus Food Stamps and Full 5 year Annuity*	11,268	5,548	9,198	4,096	9,116	8,705
ELDERLY COUPLES						
Income	8,459	7,633	8,430	5,127	8,261	---**
Income Plus Food Stamps and Partial 10 year Annuity*	10,631	9,295	10,407	5,387	10,150	---
Income Plus Food Stamps and Full 10 year Annuity*	13,546	9,295	13,007	6,377	12,667	
Income Plus Food Stamps and Full 5 year Annuity*	18,537	13,142	17,658	7,350	17,130	---

* Partial annuity excludes the value of the home. Full annuity includes net worth of home in calculations.
** The SIE automatically considers a male to be family head, if present.
SOURCE: Survey of Income and Education.

Mean resources, however, do not show the dispersion of resources across these groups. Table 9 and Table 10 present distributions of three of the definitions by age and family composition. Since the addition of food stamps makes little difference by itself, that distribution is not presented here. To avoid excessively small sample size within some of the cells, only two broad age categories are used.

TABLE 9. Distribution of Resources Among Nonworking Individuals Living Alone by Age Using Alternative Definitions of Resources (1976 Data)			
Resource Level	**Income**	**Income Minus Earnings Plus Food Stamps and Partial 10 Year Annuity**	**Income Minus Earnings Plus Food Stamps and Full 5 Year Annuity**
INDIVIDUALS AGED 65 THROUGH 74			
$2,500 or less	27.6%	24.2%	16.8%
$2,501 to $5,000	44.4	41.9	28.9
$5,001 to $10,000	21.4	22.0	24.5
$10,001 to $15,000	4.4	7.0	12.9
$15,000 and above	2.2	4.9	16.9
Total	100.0	100.0	100.0
INDIVIDUALS AGED 75 AND ABOVE			
$2,500 or less	32.8%	28.9%	19.4%
$2,501 to $5,000	47.2	44.4	30.6
$5,001 to $10,000	15.7	17.8	25.6
$10,001 to $15,000	2.5	5.4	11.2
$15,000 and above	1.8	3.6	13.2
Total	100.0	100.0	100.0
SOURCE: Survey of Income and Education.			

The addition of food stamp benefits and the annuities moves some families out of the two lower resource categories in all cases. The number of individuals living alone and having resources of more than $15,000 triples. The annuitized value of the home not only adds substantially to average resources, it strongly affects the distribution of resources at all levels. Even for those with few other resources, this asset remains important. For example, food stamps and the annuitized value of other assets have only a small impact on the lowest resource class for couples, while the addition of the annuity value of the home cuts the number in that group by half.

TABLE 10. Distribution of Resources Among Nonworking Elderly Couples by Age Using Alternative Definitions of Resources (1976 Data)			
Resource Level	**Income**	**Income Minus Earnings Plus Food Stamps and Partial 10 Year Annuity**	**Income Minus Earnings Plus Food Stamps and Full 5 Year Annuity**
COUPLES WITH HEAD AGED 65 THROUGH 74			
$2,500 or less	2.6%	1.9%	1.9%
$2,501 to $5,000	24.7	22.3	11.4
$5,001 to $10,000	48.4	44.2	24.0
$10,001 to $15,000	14.4	15.9	22.2
$15,000 and above	9.9	15.8	41.2
Total	100.0	100.0	100.0
COUPLES WITH HEAD AGED 75 AND ABOVE			
$2,500 or less	3.4	3.1	1.7
$2,501 to $5,000	29.8	26.3	13.4
$5,001 to $10,000	46.4	43.8	27.6
$10,001 to $15,000	12.0	12.6	22.1
$15,000 and above	8.3	14.2	35.1
Total	100.0	100.0	100.0
SOURCE: Survey of Income and Education.			

Discretionary Income

After accounting for housing and food requirements,. what share of income remains that could be devoted to financing long-term care? Table 11 presents results from the Survey of Consumer Expenditures. Food and total housing operations are treated as necessities and compared to income (including food stamps and other money receipts).[12] The fractions given in the table indicate the proportion of income that can be designated as discretionary. They are calculated as one minus the share of income expended on necessities. Limitations with the expenditure survey preclude calculating a measure of discretionary resources based on the broader measure of resources.[13]

[12] Since these data were gathered in 1973 and 1974, the income categories are adjusted to correspond to 1976 data from the SIE. The adjustment technique assumed that the proportion of income spent on food and housing remains constant across real income levels.

[13] Ideally , discretionary resources would indicate the dollars of resources available after accounting for food and housing. Since such expenditures are likely to vary with asset levels and other in-kind transfers, the fractions correlated here with income would need to be revised. Such an effort is beyond the scope of this paper. Some adjustments to income were made here, however. The income figure used includes the value of food stamps and any additional cash resources not counted as income.

TABLE 11. Percentage of Income Available for Discretionary Purposes by Age and Household Characteristics (1976 data)					
Family Characteristics	Income Class (1976 dollars)*				
	Up to $2,500	$2,500 - 5,000	$5,000 - 10,000	$10,000 - 15,000	$15,000 or above
HEAD AGED 65-74					
Single Person Household	1%	33%	52%	69%	77%
Two Person Household	0	23	52	64	75
HEAD AGED 75 OR ABOVE					
Single Person Household	9	30	57	68	83
Two Person Household	0	32	55	68	77

* Information is based on 1973 data but expressed in 1976 dollars. The inflator used is median income of persons 65 and over.
SOURCE: Survey of Income and Education.

The proportion of income available is strikingly similar across type of household and age group. However, since average incomes vary by number of persons in the household and age of the head of the household, this does not imply that all families spend equal amounts on housing or food.

Families with incomes below $2,500 report housing and food expenditures equal to or in excess of their incomes.[14] Consequently, they would be unable to contribute to their cost of long-term health care. Again the exception could be the individual living alone whose entire non-wage income could be devoted to the cost of institutional care. The proportion of income available rises dramatically with income.

Thus, using a measure of post-disability discretionary income suggests that even some of the at-risk elderly can afford to contribute to their cost of care. Although the figures shown here are adjusted to income, similar findings would be expected when comparing the share of discretionary resources to the level of total resources controlled by a household.

Evaluating the Empirical Results

As described thus far, a number of potential measures are available for indicating the ability of the elderly to finance long term care. The conceptual discussion concluded that the best measure would be income--after adjusting for the effects of a disabling event on sources of income--plus other resources such as assets and in-kind transfers. Finally, from this total, expenditures on necessities--particularly for the remaining family

[14] This could arise because these families are using up some of their assets--dissaving--or because they are underreporting income. Other researchers have also found that current expenditures exceed income for those with few resources.

members--and direct taxes should be subtracted. Not all the tools are available for such a "first best" approach, however.

Two measures might most closely approximate this goal. The first is based on nonearners. For single elderly individuals, we use income plus food stamps plus the full 10 year annuity (since these individuals are not likely to remain at home). If such individuals were institutionalized, no subtraction for necessities would have to be made. For elderly couples, two differences are necessary. First, only the partial annuity is added to income and food stamps since the nondisabled spouse would remain at home and, in some cases, the disabled individual might also be able to have home-based care. The other difference is the need to subtract the value of necessary expenditures.[15]

The second alternative includes all elderly couples and individuals but is based on nonearned income (omitting wages and salaries). Again, the same distinctions are made between couples and individuals. These two alternatives are compared in Table 12 which displays means by age groups.

TABLE 12. Mean Resources of Elderly by Age and Family Size for Two Combined Definitions of Resources* (1976 data)

Family Characteristics	Alternative 1 Using Only Nonearners	Alternative 2 Using Income Minus Earnings
HEAD AGED 65-74		
Single Person Household	$6,882	$6,649
Two Person Household	5,748	3,875
HEAD AGED 75 OR ABOVE		
Single Person Household	6,439	6,176
Two Person Household	4,627	4,690

* These definitions use 10 year annuities. For the single person households the full annuity is used and no adjustments are made for necessary expenditures. For couples, the partial 10 year annuity is used and necessities are subtracted from the measure. See the test for additional details.
SOURCE: Survey of Income and Education and Survey of Consumer Expenditures.

As also discussed earlier, however, the conversion of assets has a great impact on average measured ability to finance expenditures. Using a shorter 5 year annuity or even a one year exhaustion of all resources would change the outlook considerably. For example, the average-single elderly nonearner between the ages of 65 and 74 would have discretionary resources under the first alternative measure (described in this section) about one third higher if a five-year base were used.

The results shown in Table 12 show much higher resources for single elderly although in the earlier tables the resource levels of couples were always higher. This distinctrion is a result of allowances for the spouse to remain in the home and retain a share of the resources reflecting necessities.

[15] This amount would reflect the average value of food and housing expenditures by age group. Again, subtracting taxes--which should occur for all individuals and couples--is not possible here.

The sensitivity of these results to such changes suggests that careful additional study is necessary--particularly with regard to the contribution of assets. Future data with better asset and consumption information could shed additional insight on this complicated area.

EMPIRICAL RESULTS FOR IMPAIRED PERSONS

Households that currently have members with some degree of impairment are at risk of needing to provide long term health care needs--indeed, in some cases families may already be providing such help. In this section of the paper, we focus on the definition of impairment, characteristics of families with impaired members, and alternative definitions of resources for this group. A discussion of ability to finance private care concludes this section. Since the logic is similar to that used for the elderly, the various components of the analysis are not disaggregated here.

Defining Impairment

The definitions of impairment used in this analysis are based on two questions asked on the Survey of Income and Education:

- Does [the person] need help from others in looking after [his or her] personal needs, such as eating, dressing, undressing or personal hygiene?
- Does [the person] need help from others to go outdoors or to get around outside [his or her] home?

The broadest definition of impairment includes persons for whom either of the above questions would be answered yes. Alternatively, if the definition of impairment were based only on the first question, 64 percent of the persons included under the first definition would be considered impaired. Using the mobility question, 81 percent of those who answered either of the two would be included. Within the broadest definition, about 45 percent of impaired persons have both personal care and mobility problems.

Children of heads are more likely to have personal care than mobility problems. The opposite is true for primary individuals--persons who live alone. Table 13 shows the distribution of impaired persons by relationship to family head using three definitions of impaired. Interestingly, the largest group reporting impairments are family heads--although these persons are also the largest group in the population as well.

Unless otherwise noted, the definition of impairment used in this section is a person who has either mobility or personal care problems.

Characteristics of Impaired Persons and Their Families

Data from the Survey of Income and Education provide some insight into the socioeconomic characteristics of impaired persons. Just under 17 percent are nonwhite and 62 percent are women. More than two-thirds live in families with an owned home and 59 percent are in one or two person households.

TABLE 13. Distribution of Relationship of Impaired Person to Family Head by Definition of Impairment (1977 Data)			
Relationship to Family Head	**Needs Help Eating, Dressing (Personal Care)**	**Has Problems With Mobility**	**Has Either Personal Care or Mobility Problems**
Head	30.7%	26.9%	28.7%
Wife	16.3	19.3	18.2
Child[a]	17.7	10.8	13.8
"Other" Relative[b]	22.1	21.5	20.0
Primary Individual	13.2	21.5	19.4
TOTAL	100.0	100.0	100.0

a. "Child" refers to relationship to head and not to age.
b. "Other" relative means a relative other than wife or child of the family head. In most cases, this will be a parent of the head or spouse.
SOURCE: Survey of Income and Education.

As Table 14 indicates, few impaired persons are under age 45--and even fewer reside in households where the head is under 45. The percentage of impaired persons age 80 and older is over 22 percent--although persons 80.and above constitute a much smaller percentage of all households. As would be expected, heads of these families are, on average, younger than the impaired persons in the household. This implies that impaired persons are less likely to be children of the family head than spouses or other relatives, as was shown in Table 13.

TABLE 14. Relative Frequency of Age of Impaired Persons and Family Heads (1977 Data)		
Age Group	**Age of Impaired Person**	**Age of Head of Family Containing Impaired Person**
18	6.8%	0.1%
18-44	13.5	14.0
45-64	26.0	37.8
65-69	10.3	11.0
70-74	9.5	10.6
75-79	11.8	10.4
80-84	11.3	9.6
85+	10.9	6.6
Total	100.0	100.0

SOURCE: Survey of Income and Education.

The relationship between age of impaired persons and their relationship to the family is shown in Table 15. If impaired, the head of the family is, in most cases, age 45 or over. Among the very old, the husband rather than the wife is likely to be impaired. Older women with impairments are more likely to be widowed and thus would be shown in this table as other relatives or as primary individuals--persons living alone. Impaired children living with parents are usually under 45. As such children age, they are likely to

form households of their own or to be institutionalized and therefore outside our sample. Three-fourths of other relatives and primary individuals are 65 and older.

TABLE 15. The Relationship Between Age of Impaired Person and Relationship to Family Head

Relationship to Family Head	Age of Impaired Person								All Ages
	18	18-44	45-64	65-69	70-74	75-79	80-84	85+	
Head	a	3.2%	10.0%	3.3%	3.0%	3.4%	3.2%	2.5%	28.7%
Wife	0	2.1	7.4	3.0	2.1	1.9	1.1	0.5	18.2
Child	6.1	6.2	1.4	a	0	0	0	0	13.8
Other Relative	0.6	1.2	3.2	2.1	1.6	2.9	3.4	5.0	20.0
Primary Individual	0	0.8	4.0	1.9	2.8	3.4	3.6	2.8	19.4
ALL PERSONS	6.7	13.5	26.0	10.3	9.5	11.6	11.3	10.8	100.0

a. Less than 0.1%
SOURCE: Survey of Income and Education.

TABLE 16. Average Income of Families with Impaired Persons By Definition of Impairment and Relationship of Impaired Persons to Family Head (1976 Data)

Relationship of Impaired Person to Family Head	Definition of Impairment		
	Needs Help With Personal Care	Has Problems With Mobility	Has Either Personal Care or Mobility Problems
Head	$9,420	$9,449	$9,537
Wife	10,789	11,294	11,310
Child	13,273	13,363	12,181
Other Relative	13,574	13,921	13,566
Primary Individual	3,972	3,834	3,885
ALL PERSONS	10,531	9,983	10,073

SOURCE: Survey of Income and Education.

The final summary table of characteristics (Table 16) shows mean incomes for families differentiated by the relationship of the impaired person to the family head. The third column represents the definition of impaired used consistently hereafter. Highest average incomes occur in those families where the impaired person is a child or other relative. In such cases, the head, and in some cases the wife, will have earnings similar to the rest of the population. In fact, the presence of an impaired "other" relative, such as an aged parent, may indicate that the family feels it has the financial resources to care for that person.[16] When the impaired person is the head of the family, average income is lower, reflecting the impact of the disability on earnings for the family. Lowest average income is reserved for primary individuals. Since by definition these persons

[16] Indeed , the finding of so many "other" relatives with impairments suggests that families do indeed provide support for family members beyond the nuclear family.

live alone, they also have fewer obligations as compared to the other households where average family size ranges between 2.8 and 4.4. Again, howeverr resources for these individuals are likely to be even lower if the impairment worsens and affects earnings ability.

Since it is the goal of this paper to look at resources available to these families, this table shows mean incomes for the three different definitions of impairment to illustrate the sensitivity of results to the definition of impairment used. On the whole, the results are very similar. The differences in income by relationship to head are consistent across all three definitions. The higher overall average incomes for families with an impaired person who has problems with personal care (Column 1), is more a result of the distribution of the relationship of the impaired members to family heads than to differences in average incomes within any one category.

Defining Resources

The resource definitions included here (and shown in Table 17 for all families) are similar to those used for the elderly:

- Income;
- Income minus the earnings of the impaired family member;
- Income minus earnings plus the value of food stamps and a partial 10 year annuity; and
- Income minus earnings plus the value of food stamps and a full 10 year annuity.

Unlike the elderly households, only the earnings of the impaired member are subtracted from case income (as defined by the Census).[17] For these families, additional impairment of the affected family member may not preclude labor force participation by other members. This is particularly true for household heads when the impaired person is a child or "other" relative. The other major difference from elderly households is that a separate measure showing the marginal effect of food stamps is not included -- although these benefits are added to the last two alternative definitions. The relatively high incomes of many of these families means that food stamps are not vitally important. For example, average incomes (minus earnings of the impaired person) rise by only 1.2 percent as a result of including food stamps.

As Table 17 indicates, the distributions and averages in columns 1 and 3 are very similar: the effect of subtracting labor income of the impaired person is just about exactly offset by the benefits of food stamps and an annuity based on net worth (excluding the value of an owned home). When the value of the home is added, the average resource level rises by almost $1800 and the percentage of families in the lowest four levels of resources declines. Families with relatively low levels of other resources have some net worth in a home. Nonetheless, almost 44 percent of all families with impaired persons have resources under $7,500.

[17] Moreover , unlike the elderly where a substantial portion have no wage or salary income, restricting the sample to nonearners would be too restrictive here.

TABLE 17. Distribution of Resources and Average Resources by Alternative Definitions for All Families With Impaired Members (1977 Data)				
Family Resource Level	**Income**	**Income Minus Earnings of Impaired Person**	**Income Minus Earnings Plus Food Stamps and Partial Annuity**	**Income Minus Earnings Plus Food Stamps and Full Annuity**
$2,500 and less	13.1%	15.3%	12.8%	9.8%
$2,501 to $5,000	23.3	23.9	23.4	19.3
$5,001 to $7,500	16.1	16.1	16.1	14.7
$7,501 to $10,000	11.4	11.1	11.5	11.9
$10,001 to $15,000	14.8	14.4	15.1	16.8
$15,001 and above	21.3	19.2	21.3	27.5
TOTAL	100.0	100.0	100.0	100.0
Average	$10,073	$9,447	$10,340	$12,112
SOURCE: Survey of Income and Education.				

It is, however, misleading to look at overall averages. As shown earlier, average incomes vary considerably with the relationship of the impaired person to family head. Moreover, age of the impaired person may also matter as shown in Table 18. The overall resource level using the last comprehensive definition is $12,110 but varies from $4,046 for primary individuals under 65 to $18,055 when the impaired person is another relative aged 65 or over. These differences would be lower if per capita resources levels are compared, although considerable variations remain.

TABLE 18. Average Family Resource Levels and Family Size by Age and Relationship to Head of Impaired Persons (1976 Data)					
Relationship to Head and Age of Impaired Person	**Income**	**Income Minus Earnings**	**Income Minus Earnings Plus Food Stamps and Partial Annuity**	**Income Minus Earnings Plus Food Stamps and Full Annuity**	**Average Family Size**
Head or Spouse	$10,223	$9,247	$10,211	$12,105	2.8
Age 44 and under	10,582	8,234	8,722	9,931	4.2
45 to 64	11,965	10,370	11,132	13,172	3.0
65 to 74	9,072	8,718	9,784	11,724	2,4
75 and above	8,726	8,606	9,954	11,891	2.3
Child	12,181	12,783	13,566	15,429	4.4
Other Relative	13,565	13,316	14,312	16,479	3.2
64 and under	10,274	9,574	10,184	11,733	3.1
65 and above	14,655	14,558	15,682	18,055	3.3
Primary Individual	3,885	3,557	4,246	5,247	1.0
64 and under	3,929	2,957	3,244	4,046	1.0
65 and above	3,872	3,757	4,578	5,645	1.0
All Persons	10,072	9,448	10,339	12,110	2.8
SOURCE: Survey of Income and Education.					

Tables 19 through 22 present the distribution of resources for four groups--where the impaired person is a head or spouse under 65; a head or spouse 65 or over; a child or other relative of the family head; and, finally, a primary individual. The age 44 and under heads and spouses differ somewhat from their age 45 to 64 counterparts, depending more upon earnings and having fewer assets. Nonetheless, both these groups are likely to have similar concerns and the relatively small size of the under age 45 group necessitates combining them with other heads and spouses. Combining children and other relatives, on the other hand, does seem to be reasonable in terms of income levels. In addition, problems faced by the family are likely to be similar when impaired persons are relatives other than head or spouses.

TABLE 19. Distribution of Resources by Alternative Definitions of Resources When Impaired Person is Head or Spouse Under Age 65 (1976 Data)

Family Resource Level	Income	Income Minus Earnings	Income Minus Earnings Plus Food Stamps and Partial Annuity	Income Minus Earnings Plus Food Stamps and Full Annuity
$2,500 and less	5.0%	10.4%	8.1%	5.6%
$2,501 to $5,000	19.0	21.4	20.5	17.2
$5,001 to $7,500	13.5	14.5	15.9	14.3
$7,501 to $10,000	15.1	14.6	14.0	13.1
$10,001 to $15,000	19.5	18.3	19.4	20.4
$15,001 and above	27.8	20.6	22.0	29.4
TOTAL	100.0	100.0	100.0	100.0

SOURCE: Survey of Income and Education.

TABLE 20. Distribution of Resources by Alternative Definitions of Resources When Impaired Person is Head or Spouse Under Age 65 or Over (1976 Data)

Family Resource Level	Income	Income Minus Earnings	Income Minus Earnings Plus Food Stamps and Partial Annuity	Income Minus Earnings Plus Food Stamps and Full Annuity
$2,500 and less	3.3%	3.7%	3.0%	2.2%
$2,501 to $5,000	28.0	18.8	25.8	17.4
$5,001 to $7,500	27.1	27.4	25.4	19.6
$7,501 to $10,000	14.8	14.7	15.5	17.1
$10,001 to $15,000	13.9	13.6	14.9	19.6
$15,001 and above	12.9	12.4	15.5	24.1
TOTAL	100.0	100.0	100.0	100.0

SOURCE: Survey of Income and Education.

As Table 19 demonstrates, the loss of the earnings of a head or spouse under age 65 produces a major reduction in resources at all levels. In this case, it is not until the

house is included in the annuity that the distribution of resources compensates for that earnings loss. Since both husband and wife are likely to be of working age in this example, the non-impaired spouse might be able to increase his or her labor force participation somewhat. However, since average family size for these households is over 3, the burden of a disabled person and other dependents could lower the healthy spouse's participation in work outside the home.

TABLE 21. Distribution of Resources by Alternative Definitions of Resources When Impaired Person is Child or "Other" Relative[a] of Household Head (1976 Data)

Family Resource Level	Income	Income Minus Earnings	Income Minus Earnings Plus Food Stamps and Partial Annuity	Income Minus Earnings Plus Food Stamps and Full Annuity
$2,500 and less	9.2%	10.1%	8.0%	5.8%
$2,501 to $5,000	12.4	12.3	12.2	10.9
$5,001 to $7,500	14.3	14.3	14.5	12.3
$7,501 to $10,000	10.8	11.0	11.4	10.3
$10,001 to $15,000	19.2	19.1	18.7	18.9
$15,001 and above	34.2	33.3	35.3	41.9
TOTAL	100.0	100.0	100.0	100.0

a. "Other" relative means a relative other than wife or child. In most cases this will be a parent of the head or spouse.
SOURCE: Survey of Income and Education.

Families with impaired older family heads and spouses (Table 20) face a different set of circumstances. There are fewer very low income **and** fewer very high income persons in this group by any of the resource definitions. The value of the home, however, adds relatively more to well-being. This is not surprising since older families generally own their homes (or at least owe less on them than younger families).

TABLE 22. Distribution of Resources by Alternative Definitions of Resources When Impaired Person Lives Alone (1976 Data)

Family Resource Level	Income	Income Minus Earnings	Income Minus Earnings Plus Food Stamps and Partial Annuity	Income Minus Earnings Plus Food Stamps and Full Annuity
$2,500 and less	41.0%	44.4%	38.7%	31.0%
$2,501 to $5,000	41.6	41.3	43.6	38.8
$5,001 to $7,500	8.4	7.1	7.5	13.7
$7,501 to $10,000	3.8	2.9	3.7	6.9
$10,001 to $15,000	3.1	2.6	3.7	5.3
$15,001 and above	2.0	1.7	2.7	4.3
TOTAL	100.0	100.0	100.0	100.0

SOURCE: Survey of Income and Education.

Families whose impaired relatives are neither the head nor wife have the greatest proportion of families in the above $15,000 resource categories. Even after subtracting earnings of the impaired member, over half of these families have $10,000 or more. Since resource levels are relatively high to begin with, adding food stamps and annuities have a less dramatic impact except for those with low incomes. It should also be noted, however, that average family size is relatively high for this group.

Primary individuals with physical impairments are least able financially to care for themselves. Even after accounting for the contribution of food stamps and all assets, almost 70 percent of this group has resources of less than $5,000.

The Ability to Finance Private Care

As discussed with the elderly, the existence of resources for these families does not dictate the amount which can be used to finance long term care. In particular, the younger families considered here have, on averager two or more additional members whose needs must also be met.

The final determination of financial capacity therefore should look at resources available after subtracting necessary expenses (including tax liability). Since the Survey of Income and Education does not have consumption data, these two parts cannot be combined.

On balance, it would appear that families with resources over $10,000 may be able to contribute to a considerable share of their long term care. If families--particularly younger families with several dependents--are not asked to sell their homes, however, the number would drop. Consequently, using the, third resource definition for all but families consisting only of primary individuals, 28.5 percent of all the impaired should be able to contribute. For primary individuals, all their resources could technically be devoted to purchasing institutional care, accounting for another 19.4 percent of the impaired. Perhaps a more realistic estimate would be that all such individuals with resources over $5,000 by the fourth definition could finance a substantial portion of long term care needs. This would add 5.9 percent to the 28.5 percent (for families with more than one member)--thus resulting in the conclusion that over one-third of families with impaired members should be capable of providing for much of their own care.

FUTURE DIRECTIONS FOR RESEARCH

The empirical findings discussed here present an examination of the ability of two high risk groups--the elderly and those currently with some degree of impairment--to finance long term health care needs. The various results remain pieces to the puzzle that need to be combined to form a more coherent framework. A number of additional contributions are needed before it will be possible to determine precisely what proportion of these families could feasibly support all or part of a period of disability.

The various disparate components of this determination ought to be evaluated for each individual rather than making comparisons across averages by income class or age. For example, although wages account for some percentage of the income of a household of given size, age, and income class, the distribution within that cell is important. A few workers who rely heavily on earned income generally account for the average. If wages are subtracted on an individual basis, the reduction would indicate that for example, a few of the elderly in that income class would be unable to contribute to costs of care, but that available discretionary resource levels for non-workers would be higher than indicated by the overall average. Thus, the number of potential contributors will be affected.

An issue not discussed here in any detail is the interrelationship between current public programs and families' private resources. The level of savings and the participation of family members in the labor force are just two examples of behavior likely to be influenced by participation--or the "insurance value" of potential participation--in these programs. Thus, a study which seeks to assess ability to privately finance long term care cannot ignore the existence of public sources of support and their long term impact on individual behavior. For example, although Medicare covers costs of institutionalization only for acute cases and only for specific medical expenses for home-based care, it nonetheless reduces an individual's obligations for acute medical expenses. Resources that might otherwise be required for medical insurance can be used for long term care needs. Similarly, Medicaid participants will have a broad range of medical services covered, enhancing an individual's ability to finance non-covered services such as homemaker or other home-based social services to supplement long term medical care needs. Consideration of these factors is important in comparing the elderly to younger families and families above and below poverty level income.

The attempt to measure discretionary income ought to be expanded to measure discretionary resources--the amount of final resources available after necessary expenditures are excluded. Food and housing expenditures--as well as tax outlays--ought to be compared with resource levels. Such an analysis, however, requires data manipulation to combine existing surveys that is beyond the scope of this paper.