

Retirement Needs: The Perspective of the Individual

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Introduction

Most nations throughout the world have an aging population and increasing demands on their resources to help support these populations. This paper sets forth challenges presented by an aging society with a focus on the situation of the individual and the implications for actuaries. It provides an overview of issues, many of which will be discussed in detail in the other papers in this volume. It focuses on the total retirement benefit package—pensions, retiree health, long-term care, and helping those of the elderly who need special assistance. It is hoped that the work presented here will help improve the well-being of the elderly and encourage those who are serving their needs.

The role of actuaries in dealing with these issues is multifaceted. Actuaries need to understand the issues and the context for the systems we work with. We need to be innovative in working with these systems. We build models of financial security systems and gradually refine them over time. These models depend on data, and our role includes defining data requirements and sources. The models help us to design programs to support the financing and management of systems for retirement security and caregiving.

A Different View of Retirement

Retirement can be viewed from an activity perspective, from a financial perspective, or both. From an activity perspective retirement is a period when the individual has left the paid labor force for leisure, or non-paid activity. However, many retirees continue with

some form of work. From the perspective of a specific employer, retirement is leaving employment and collecting benefits even if employed somewhere else. One of the difficult issues in discussing retirement policy is clearly defining retirement. It is my contention that a reasonable definition varies with perspective. Possible perspectives include

- Policymakers and social planners
- Managers of government-sponsored programs
- Managers of single-employer pension plans.

People today vary their attachment to the labor force over their lives, so we might want to look at retirement in a different way not directly connected to activity. Rather, we will think of the life cycle as consisting of a period when we accumulate assets and a period when we use assets already accumulated. With the shift to more individual responsibility, the individual needs to know more, both about the accumulation of assets and about the effective use of them after retirement. There has been a major increase in the emphasis on employee education, but much of it is focused on the accumulation of assets and investment of the funds. Relatively little has been said about their effective use. Some of the issues to be considered include

- Changing housing needs after retirement and as one ages
- The impact of the loss of a spouse
- Other changes in family status
- Increasing needs for care and support of various types
- Changes in functional status
- Health care needs leading to unexpected costs.

In addition, there are issues related to inflation and investment risk, which are discussed more often.

Resource Needs during Retirement

Resources for retirement come from Social Security, private pensions, and personal savings. Many individuals need to supplement these resources with continued work. Social Security benefits are paid to couples as a family and reflect the work history of both members of the couple. Benefits are continued to the surviving spouse. These benefits are indexed to provide increases linked to growth in living costs. They do not have any component linked to changing needs, and they generally do not match the needs of the individual.

We traditionally think about private pensions being distributed in one of several forms: as a lump sum, as a level income, as an indexed income, and as an income with continued payment to a survivor after one of the annuitants dies. A review of the events here indicates that this pattern of distribution is not well matched to needs. When we consider Social Security and private pensions together, we still do not have a good match. The pattern of consumption will vary by individual, but it will increase with inflation and with various changes. It may also decrease as individuals discontinue some activities, downscale their housing, or both.

Events of the Post-retirement Period

As indicated above, there are a number of events that can change the circumstances of the individual retiree after the time of retirement. These are presented in Table 1.

While not discussed as an explicit event, the risk of outliving our assets must also concern us. Several of these events interact with the risk of outliving assets. We can protect against this risk by annuitizing assets, but if we do not index for inflation, this is only partial protection. In addition, we see from the discussion of the events that a level annuity is a mismatch to our needs.

For each event I focus on its predictability and financing and provide additional comments. Some of the events affect nearly all of the elderly, whereas others affect smaller numbers of persons. Some of the events are gradual, but others occur as discontinuities, which bring about a lot of change suddenly.

Predictability is quite different when we look at a group of people versus a single person. We can predict mortality quite well for a large group, but not well for a single person.

How Do We Learn about These Issues?

As professionals who are working with financial security, we may learn about needs in retirement through our work experience, formal studies, or personal experience. Our formal training sets forth a framework for estimating what is needed in retirement assets and income to provide for basic expenses, financing for medical care, and support when assistance is needed in the activities of daily living.

A variety of models and data are being explored to enable us to measure these needs and price financial products linked to them. Part of the purpose of this conference is improving and refining the way we measure these needs. As actuaries we hope to continue to refine these models and improve our data resources so that various parties can use these data to support the economic and personal status of the elderly.

As individuals, family members, and caregivers we learn about these issues in a different way. We see individuals who need help and support and the situations they face. We develop very different perceptions about the issues. This is particularly true about changes in functional status and unanticipated difficulties. These are lessons learned as we see our mothers and grandmothers needing help. For example, many elderly people have multiple prescriptions, and the effects of drug interactions are cited as a cause of medical costs for the elderly. The definition of situations triggering benefits from long-term-care insurance does not tie to the ability to manage prescriptions satisfactorily. However, from a family perspective, once someone can't handle their medications, they need help daily. I am personally very familiar with a situation in which someone has five prescriptions, which must be taken in different combinations four times daily, and they cannot manage that independently. At this point daily assistance is needed. If it is a just a matter of sorting the medications, assistance once a day or every few days may suffice. But if it is also a matter of remembering when to take them, and in the right combinations, assistance may be needed four times daily. Failure to take the medications in the right combinations is likely to lead to further declines in health and functional status and other problems.

Likewise, the ability to communicate by phone may be important to an individual and family in defining whether an individual can manage independently and the type of help they need. Typical questions about

TABLE 1
CHARACTERISTICS OF POST-RETIREMENT EVENTS

Event	Discussion	Predictability	Financing to Cover Cost	Comments
Death of a Spouse	Major change and often accompanied by decline in economic status.	Very difficult to predict in individual case. Women are widowed more often than men. Straightforward to predict in large population total number of deaths.	A number of vehicles are available that can be used in combination: <ul style="list-style-type: none">● Life insurance● Survivor income in pension plans● Long-term care● Savings.	It is evident from the changes in economic status that the benefits provided from all systems are not adequate. Interacts with possibility of outliving assets.
Inflation	Historical data can be used only to estimate average inflation. If there is substantial inflation, it can seriously erode the well-being of a group.	Fair—major year-to-year changes are not expected. Inflation may follow long-term averages, but there can be substantial short-term differences.	Social security benefits are indexed; effectively, Medicare is also indexed. Investment strategy can help. Income can be structured to increase at a fixed rate or with inflation. Additional assets can be set aside.	With the increasing length of the retirement period, this can be a major issue. Requires an increasing pattern of income.
Changes in Functional Status	Changes can be sudden and tied to an illness or accident. Changes can also be gradual and may link to a chronic disease. It is common to have multiple problems. Different people deal with the same problem in different ways. The percentage needing help increases substantially with age.	It is hard to predict changes in many cases. It may be hard to measure functional status. For purposes of insurance there needs to be an identifiable insurable event, and this can be a problem.	Where insurance is purchased, long-term-care benefits can cover the most severe cases. Medicaid covers a substantial portion of nursing home care costs in total. Benefits are available only to individuals with very low or no assets. Care options are linked to housing choices.	Measurement can be a problem. For example, difficulty in using telephone might mean: <ul style="list-style-type: none">● Can answer but not place any call● Can't look up number, but can call number on speed dial● Can't use phone at all. This may require added resources at the time of changes.
Changes in Housing Needs	Personal preference, availability of family, resources, and functional status drive choices. Housing can be a significant asset in retirement; this asset can be converted to cash by the sale of the home, or through use of a reverse annuity mortgage. Newer forms of housing, i.e., assisted living, merge care with housing. Independent living also merges some support with housing.	At time of retirement needs are predictable unless individual is disabled. Future needs are hard to predict as changes in functional status are hard to predict.	Primarily savings and current income. Continuing care retirement communities include elements of advance funding of the cost of long-term and medical care. Medicaid and/or long-term care insurance may cover part of the cost of housing if merged with care.	These may permit for reduced income needs at time of retirement, with increases related to inflation, and then significant changes when different types of housing are needed.

(Continued)

TABLE 1 (CONTINUED)
CHARACTERISTICS OF POST-RETIREMENT EVENTS

Event	Discussion	Predictability	Financing to Cover Cost	Comments
Unexpected Health Care Needs and Costs	<p>This is a major concern; lower-income retirees may spend 35% or more of their resources on health care.</p> <p>Prescription drugs are a major issue, particularly for the chronically ill, and they are not covered by Medicare.</p>	<p>These are hard to predict for individuals, relatively easy to predict total cost for a large group over limited period, very difficult to predict far into the future.</p>	<p>Medicare is primary coverage for post-65 retirees.</p> <p>Other coverage is provided by employer plans and supplements.</p> <p>HMOs can replace entire package.</p>	<p>There is a high level of uncertainty linked to uncertainty about Medicare's future.</p>

using the phone include the following: In the event of a problem, can the phone be used to call for help? Can the problem be explained? Can we carry on a good conversation on the phone? Can phone calls be made if numbers need to be looked up? Can phone calls be made only with pre-set numbers? Do we need special large numbers on the phone? Can the phone be answered? Can the individual use an answering machine to receive messages? My personal experience is that the level of telephone communications is very important in determining when an individual can satisfactorily live independently, and when help is needed. It may be very difficult to define the level of telephone communication ability discretely. From a third party's perspective, this may not be a satisfactory way to define eligibility for any sort of benefits. From a family perspective, it is a critical issue in sorting out what type of support a parent needs. The family is most concerned about getting needed help, whereas the third party may be concerned about not providing more help than needed and not paying more benefits than promised.

It is important that the professionals designing solutions to some of these issues are sensitive to gradual changes in status. As actuaries we need to think through what the changes are, what we can measure, and how we might measure it. Defining better systems to provide support is linked with the ability to have information and data about various situations.

Stakeholders

There are diverse interests dealing with this matter. The stakeholders and their concerns are identified in

Table 2. In some cases the interests of diverse stakeholders are similar, but in others they are opposite.

Implications of an Aging Society

The age distribution of the population is becoming markedly older in the U.S., particularly as the Baby Boom ages. The U.S. Baby Boom and the gradual decline in mortality rates heavily drive the distribution of the population by age. As a result of differences in mortality rates by gender, the population at the oldest ages is heavily female. Females are much more likely than males to be widowed. They are also much less likely to remarry. Figure 1 shows the marital status of the elderly by age and sex. This leads to dramatically different living patterns. Elderly females are much more likely to live alone, and much more likely to need care, which may not be available from other family members.

Families are much better off than individuals not living in families. In 1994, 6.0% of U.S. persons over age 65 and living in families were below the poverty level compared to 23.1% of individuals living alone. The 6.0% were down from 14.8% in 1970, and the 23.1% were down from 47.2% percent in 1970.¹

The growing elderly population and the fact that it will be heavily female, including many widows at older ages, have several key implications:

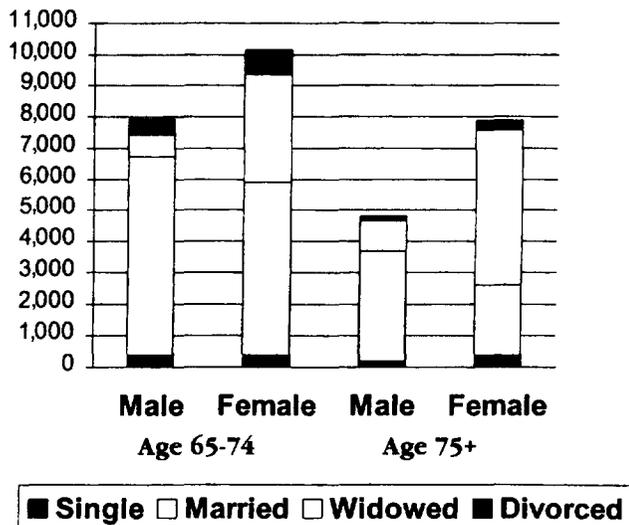
1. At the time of retirement couples need to plan for both their common economic security and the economic security of the surviving spouse after the first death. At present it appears that the survivor is often not adequately provided for and that widows

¹Source: Table 734, Statistical Abstract of the United States.

TABLE 2
STAKEHOLDERS AND THEIR NEEDS

Stakeholder Position	Concerns	Information Needs	Incentives
Individuals and Families	Adequate resources Adequate care—medical and personal support Choice of housing	What needs are, and how to meet them How government and employer programs are structured What product options exist for personal purchase Information about housing options	Taxes Incentives built into employer products
Society at Large: Government	Size and type of social safety net Ensuring that people are not starving Tax structure Fairness of incentives	Understanding of population data and social patterns Understanding of costs Understanding of options	Legislators focus on what will keep them in office and get them elected
Employer of Individual (Including Former Employers of Retirees)	This depends on individual philosophy, but many employers are concerned about well-being and economic status of retirees; many are also concerned about managing the cost	Understanding of employee/retiree demographics, preferences, and wants Understanding of marketplace Understanding of costs Understanding of impact on retirement decisions	Taxes Attracting and keeping good, skilled employees; this will be even more important as the percentage of young workers drops
Employer of Caregiving Family Members	Impact of caregiving on the employee	How to solve problems What resources and options are available	This is viewed as a work-family issue There are related legal issues (FMLA)
Community Organizations	Well-being of the constituency served Securing resources needed to fund programs, whether from users or from outside funding sources (both public and private)	What are needs, and how well are they met Availability of community resources	To potential givers, goodwill and recognition as well as a good feeling
Commercial Service Providers	Market needs Securing business	Needs of potential and current customers Competition Anticipated buying behavior	Profits Goodwill
Insurers	Profitability and salability of products Self-insurance is often a major form of competition Legal requirements	Expected buying patterns Competition	Profits Expanding markets Goodwill

FIGURE 1
MARITAL STATUS BY AGE AND SEX,
UNITED STATES 1994



Source: U.S. Bureau of the Census. 1995. *Statistical Abstract of the United States*, 115th ed. Washington, D.C., p.55.

are often left in poverty or near-poverty. There are several different methods to provide for survivors: through election of joint and survivor annuities, through setting aside assets, through use of life insurance, and through long-term-care insurance.

2. Post-employment medical coverage is important for both spouses, particularly for retirees not yet eligible for Medicare. Surviving spouse coverage is important. If medical coverage is not available through an employer plan, such coverage must be purchased elsewhere.
3. Long-term-care financing is also an important issue.

Need for Special Assistance in Old Age

Many of the elderly need some help beyond medical care. The most severely disabled may be in nursing homes or have continuous help at home. Most elderly needing help, about 90% according to data from Great Britain, need more moderate amounts of assistance. Family members most often provide help at home, but for the elderly living alone there is a need for special assistance. In many cases assistance is being integrated with the provision of housing. Different approaches have been taken to measuring situations in which help is needed.

Services to the frail elderly can be provided at home, in nursing homes, or in a variety of different housing settings. Developments over the past 20 years have transformed public- and private-sector approaches to housing for the elderly. Assisted-living arrangements are growing more common and popular. The spring 1997 issue of *The Public Policy and Aging Report* is devoted to a review of the emergence of housing innovations for the elderly and a discussion of how they integrate with acute care and managed care. In the U.S. there are several different approaches to providing help linked to special housing facilities. States regulate these organizations in different ways and provide Medicaid reimbursement in some cases, but not others. As a result, the categories are not uniformly defined. Table 3 compares various types or supportive housing as it existed in 1997, with notes about the services provided and their cost.

A continuing care retirement community (CCRC) integrates housing, medical care, assistance with daily living, and a variety of social and other activities. It is of particular interest to actuaries in that it often provides a form of medical and/or long-term-care insurance. CCRCs typically require a down payment at entry and a monthly fee. They have health requirements at entry and provide a range of services, some of which may require additional fees. Bruce Jones (1997) has provided a mathematical model for studying CCRCs. He defines residents as being in one of four groups: independent living, assisted living, skilled care (temporary), and skilled care (permanent). Residents can move between the groups and can go back and forth, and they can leave the CCRC by death or withdrawal. Transitions can occur multiple times within a single year. He provides us with tools for modeling the CCRC experience, which may also have applications for looking at the needs of the elderly outside CCRCs. Caution must be used in applying CCRC data elsewhere, however, in light of the entrance requirements.

Estate and Tax Planning

Often planning for the post-retirement period focuses on how to minimize estate taxes and achieve wealth transfer effectively. Those topics are beyond the scope of this paper and this conference, which focuses on the needs of the individuals *during their lives* and how to define and model them effectively.

What Does This Mean to Actuaries?

As our population ages, the role of private and public systems designed to help individuals have adequate

TABLE 3
COMPARISON OF SUPPORTIVE HOUSING TYPES

	Typical Number of Residents	Services	Cost per Month	Other
Board and Care	2–200	Some ADL and IADL	\$500–3,000; many low-cost; half publicly supported	Most diverse in quality, size, and cost
Assisted Living	15–100	ADL and IADL	\$1,000–3,000; typically private pay	Philosophy of independence promotes aging in place
Adult Foster Care	1–8	Some ADL and IADL	\$600–1,500; at least half publicly supported	Small, family-like
Continuing Care Retirement Communities	100+, independent 30+, assisted living 30+, nursing home	Varies by buildings within the community	\$900–3,600 (varies by level of entrance fee); typically private pay	Independent is similar to congregate care; assisted living in CCRCs is similar to other assisted living
Congregate Care	100+	Hotel-type services, such as meals and light housekeeping	\$700–1,500; typically private pay	Apartment buildings with some common services

Source: K. Blanchette 1997. *New Directions for State Long-Term Care Systems, Volume III: Supportive Housing*, Washington, D.C.: American Association of Retired Persons.

income, medical care, and assistance in other activities in old age will be increasingly important. There are mismatches between retiree needs and current systems to provide retirement security. This means opportunity for actuaries. The shift in demographics will potentially put a major strain on pay-as-you-go systems. Caring for the elderly and financing that care will be a major social issue. It is likely that there will be an increasing number and variety of trade-offs as different countries and their private institutions seek answers to the questions raised by these issues. Actuaries, with their understanding of mortality and life tables, pensions, and risk, will have a vital role to play in developing and evaluating alternatives.

There are number of related questions for actuaries to consider:

- What alternatives might there be for providing care when family members are not available?
- How can such care be financed? Are opportunities available to develop different financial products?
- Are opportunities available to pre-fund part of the cost of special housing?
- What should individuals be told when they ask the question “How much do I need to save?”
- How can the financial risks faced in retirement be managed? What can be insured?

Note that in planning for retirement it is common to consider replacement of preretirement income, but not very common to focus on the added cost of changing health, functional status, and supportive housing.

In dealing with these issues, actuaries can consider the needs of many different types of customers: policy-makers, employers, and other plan-sponsors developers of financial products and individuals. The challenges are many, and the needs are great.

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