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THE IMPACT OF SOCIAL AND ECONOMIC CHANGES ON FINANCIAL SECURITY SYSTEMS

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ABSTRACT

This paper explores our societal systems for providing economic security, and the changing social and economic context. It examines the societal structure underlying these systems and shows how change in the society can affect the systems for providing security. The systems dealt with include private pensions, social security, life insurance, and health insurance. The forces in society examined are changes in the family and the role of women, inflation, the changing age composition of the population, and the changing values as expressed in the psychology of entitlement. Demographic, attitudinal, and economic data have been included to document the societal changes described.

INTRODUCTION

MUCH of the work of actuaries deals with the design and management of a variety of systems that are intended to provide financial security. Actuaries are needed in this work because these financial security systems are based on the occurrence of uncertain events over long periods of time. Actuaries estimate costs for such systems and calculate the reserves necessary to ensure that promised benefits will be paid. This is done by estimating the probabilities that specified events will occur and then combining these probabilities with appropriate discount factors.

Existing financial security systems have developed in the context of a society with certain family patterns, demographic structures, and attitudes toward the role of the individual and the community. The systems have become most highly developed in those societies where the changes affecting the probabilities of occurrence of the events to be protected against and the value of these benefits were gradual and, to some degree, predictable.

During recent years, significant changes have been occurring within North American society in family patterns, demographic structure, attitudes with respect to the role of the individual and the role of the community, and economic stability. In comparison with earlier decades, these changes have been occurring at a more rapid rate. The evolution of previous decades has become more of a revolution today.

Much has been written by futurists in an attempt to analyze the various trends taking place in our society so as to provide guides to what the future may hold. The purpose of this paper is to relate these investigations to areas of unique actuarial responsibility. To accomplish this, we will analyze security systems in terms of the perceptions about the society underlying these systems, and then we will examine the effect of current social and economic changes on the various systems with which actuaries work. In this way, we hope to provide actuaries with a general overview of some of the problems that lie ahead for them.

This paper is in three parts. The first part presents an outline of the social and economic contexts of our various security systems, and of the structure of the society that forms the basis for these systems. The second part includes data on the various social and economic changes that have taken place in recent years and an analysis of these changes. Finally, in the third part, the authors comment on the possible impact of these social and economic changes on the financial security systems with which actuaries work.

SOCIAL AND ECONOMIC CONTEXTS OF FINANCIAL SECURITY SYSTEMS

Security is a basic human need. As civilization developed, institutions were created to increase economic security. In most societies an institution such as the family, tribe, church, or state stood ready to provide economic assistance to those who suffered severe hardship.

In the past century, strong political forces have worked toward a centralization of the responsibility for providing economic security in the state and in special-purpose private institutions. Since the division of income within a society is a perpetual problem, it is not surprising that the goal of providing income security cannot be separated from the problem of income distribution. Income security programs almost inevitably include some aspect of income redistribution.

Today the important systems for providing financial security for individuals include the following:

A. General income security programs.
   1. The opportunity to earn income. In some societies this opportunity is a designated goal of the state, in others it is an enforceable right, and in totalitarian regimes it is compulsory. One may view the growth of labor unions as having been motivated by a desire to increase income security through collective action.
   2. The opportunity for education. For several decades, public education was viewed as a prerequisite for citizen participation in government. In

more recent years, education has been an important tool of economic and social policy. Knowledge is power, and power may generate income.

3. The family ethic that directs that members who do not work outside the home are entitled to a share of the income generated by those employed.

B. Specific income systems.
   1. Retirement income, which is intended to replace, at least in part, earnings after a person is too old to continue working effectively. This income usually comes from social security, private pensions, and personal savings.
   2. Income for dependent family members after the death of a breadwinner. This income can come from social security and from life insurance proceeds.
   3. Income during periods of disability. This income arises from many sources, including employer salary continuation programs, social security, individual health insurance, workmen's compensation, and automobile insurance income replacement programs.
   4. Unemployment insurance, which provides for replacement of a portion of wages lost during periods of unemployment.
   5. Public welfare, which in effect fills in the gaps. Although it might be called a system of last resort, it is one used by a substantial portion of the population.

C. Special income supplements.
   1. Special payments to injured parties arising out of tort liability—for example, in connection with medical or other malpractice and certain types of accidents.
   2. Alimony and child support payments, which continue income to dependent family members after the family unit is dissolved.
   3. Private and public medical care coverage, which pays all or part of individual or family medical expenses.

D. Systems protecting wealth.
   1. Public safety organizations and the legal system that defines and protects property rights, including inheritance laws.
   2. Insurance that protects property from loss through fire or theft, and protects individuals from lawsuits arising out of liability.
   3. Federal insurance of the safety of bank deposits, and guarantee funds that protect the solvency of insurance companies.

E. Accumulation of personal wealth.
   This can be a substitute or supplement for nearly all the other sources.

Each of these sources of security is built on certain perceptions about the social system it seeks to perpetuate. Some of these perceptions now will be defined in order to highlight the importance of the social and economic changes that are taking place.

Social and Economic Context of Private Pensions

Private pensions generally are based on the following perceptions about society:

1. Private pensions should be funded during the working lifetime of the employee, in order to secure expectations and to relate pension costs to the work performed. This has been true particularly since the enactment of minimum funding standards under ERISA. Thus it is assumed that the plan sponsors will continue in business and that a stable currency and investments will continue to exist to make such funding feasible.
2. In planning benefit levels in private pensions, it is assumed that the worker will participate as a member of the labor force for the segment of the adult ages starting with the completion of full-time education and continuing until some retirement age such as 65, at which time the worker will retire and begin receiving a pension. It is worth noting that retirement as a concept is relatively new in the United States, having developed principally over the last thirty years.
3. Pensions should reward long-term employment. Thus, prior to ERISA, many private pension plans paid benefits only for relatively long service with a single employer. The perception was that career employees would remain with one employer for long periods of time, and also that the company would continue in operation over a long period. To some extent, ERISA has modified this perception by providing for mandatory vesting and plan termination insurance. ERISA also has defined and provided for enforcement of employees' rights to the benefits provided by pension plans.
4. Inherent in the design of most private pension plans is the perception that the family unit is formed for life, and that by assignment of the entire benefit to the worker his dependents will be protected. Thus it is assumed that the wife who was dependent during the working years still will be dependent during retirement years, and will be entitled to "retirement" benefits because of her relationship to her worker husband.
5. The creation of pension plans is good public policy, and to encourage such plans favorable tax treatment is granted to private pension plans meeting certain requirements. Thus to an important extent society encourages private pension plans through the tax system.
6. The existence of private pensions is based on the perception that employers should bear some of the responsibility for the financial well-being of the employee during his retirement years. By implication, it also is perceived that a significant portion of employees could not, or would not, provide voluntarily for their own retirement on a satisfactory basis in the absence of a private pension and social security.
7. Retirement usualliy is defined only within the context of employment by the employer or group of employers providing the pension. Thus a retired employee usually may seek employment elsewhere without affecting his pension.

This is consistent with the perception that pensions are related to specific periods of service.

8. Private pensions are perceived as part of a total compensation package, and have become an item of major importance in union bargaining. Thus society has recognized that pensions are an important part of the total compensation earned by an employee during the course of his employment. This contrasts with the concept when pensions originated, at which time they were looked on as a gift by the employer to the long-service employee upon his retirement.

Pension funds have become the owners of at least 25 percent of the equity capital in the United States, and it is predicted that they will own 50 percent of such capital by 1985.[1] This change in ownership shifts control of large blocks of stock to financial institutions serving as plan trustees and investment managers, and concentrates investment decisions in the hands of professional money managers.

Social and Economic Context of Social Security

There have been many legislative changes in the social security laws, but most (though not all) of the basic social context has remained in effect. Today the social and economic contexts of the social security system in the United States might be characterized as follows:

1. The system can be viewed as involving a transfer of funds between generations, in that current workers pay for the benefits of current beneficiaries. As a result, the security of future beneficiaries depends on the continued existence of an adequate number of workers who are willing to adhere to the concept of intergenerational fund transfers.
2. Coverage is related to earned income rather than need. (In Canada coverage is based partly on residence, and some coverage is provided whether or not the individual is employed.) Although it has been expanded greatly since the early days of the system, coverage still is not universal. Most civilian and certain other employees of the federal government are excluded, and recently some state and local government units have withdrawn from the system or have announced their intention to do so. This produces inequities between workers who have spent part of their working careers in covered employment and part in excluded employment and those who have spent their entire working careers in covered employment.
3. Benefit levels, which are based on long-term average earnings, represent a balance between individual equity and social adequacy. Relative to both income and contributions, lower-paid workers receive greater benefits than

[1] Peter F. Drucker, *The Unseen Revolution* (New York: Harper & Row, Inc., 1976), p. 1.

higher-paid workers. Thus, social security is a tool of public policy because of its effect in redistributing income.

4. The system is built on a "breadwinner and dependent family" model in that it provides for benefits to dependents. In the family where both spouses work in covered employment, both pay social security taxes but the benefits are the larger of those for one worker with a spouse and those for two workers neither of whom has a spouse.
5. The system anticipates a lifetime family; that is, it assumes that the same spouse will be with the covered worker after retirement as during the working years. Unless a wife had been married for over ten years at the time of divorce, she will receive no benefits based on her former husband's covered earnings.
6. There is a perception that mothers should be available to care for dependent children. Therefore, in certain cases a mother receives benefits only because a dependent child is entitled to benefits.
7. Benefits are completely portable as between one covered employment and another. In contrast to the private pension system, there is no requirement of a long period of continued employment with a single employer in order to receive benefits.
8. The system has an insurance aspect in that income generally is not replaced until it is lost; there is an earnings test until a specified age.
9. With its taxing powers, the government can provide benefits that are indexed automatically to reflect the effects of inflation. This is one of the unique aspects of a social insurance program. Before automatic indexing was adopted Congress passed ad hoc increases on a regular basis, so that in effect the benefits at that time also were adjusted for inflation.
10. There appears to be a high level of public acceptance of the system. Associated with this is a high degree of expectation as to the level of benefits that can be paid relative to the cost of providing them.

Social and Economic Context of Life Insurance

In past centuries, the death of the person comparable to today's "breadwinner" resulted in severe hardship for his dependents. To help alleviate these hardships, relatives and friends of these dependents often would care for them.

As families became more mobile and less cohesive, life insurance gradually began to provide a substitute for help from family and friends. Today the social and economic contexts of life insurance can be described as follows:

1. Premature death has measurable financial consequences, and it is reasonable to buy insurance to provide the necessary funds.
2. An income earner has a responsibility to those dependent on his income for providing a means of continuing that income even after his death. This responsibility extends to dependent children until they reach maturity and

to a fully or partially dependent spouse. Although this responsibility is met partially through social security survivor benefits, life insurance (both group and individual) is a major method of meeting it.

3. Two individuals, each contributing to their joint support or economic welfare, may feel that they have a mutual responsibility to each other to cover the economic loss resulting from either's death. This can occur in either a family or a business partnership, and depends largely on the understanding between the parties.
4. Because of the long-term nature of the responsibility, conventional life insurance inherently assumes that the economic system is able to preserve purchasing power.
5. Permanent life insurance provides a means to combine death benefit protection and a savings program.
6. Tax laws make it advantageous to use life insurance in various ways.

CURRENT SOCIAL AND ECONOMIC CHANGES THAT AFFECT FINANCIAL SECURITY SYSTEMS

As we examine the social and economic contexts of the various security systems of today, we observe that many of the fundamental elements of the structure on which these systems are based are in a process of critical examination and change. The purpose of this section of the paper is to analyze some of the changes taking place today that are affecting, or will be affecting, these systems.

Changes in the Overall Social Context

At the present time, many feel that our society is in the middle of a period of transition that is profound and far-reaching. Professor George Cabot Lodge, in his book *The New American Ideology*, states that "the United States is in the midst of a great transformation, comparable to the one that ended medievalism and shook its institutions to the ground, making way for what we now call modernity. The old ideas and assumptions that once made our institutions legitimate are being eroded. They are slipping away in the face of a changing reality, being replaced by different ideas as yet ill-formed, contradictory, and unsettling."[2]

Professor Lodge goes on to state that the traditional ideology of America includes five great ideas—those of individualism, property rights, competition, the limited state, and scientific specialization and

[2] George Cabot Lodge, *The New American Ideology* (New York: Alfred A. Knopf, Inc., 1974), p. 3. The traditional ideology of America as described by Lodge tends to parallel closely the ethical basis of insurance as set forth by John D. Long in *Ethics, Morality, and Insurance* (Bloomington: Bureau of Business Research, Graduate School of Business, Indiana University, 1971).

fragmentation. He then states that these ideas are subject to change, and demonstrates how each of them is being augmented and replaced by concepts he refers to as, respectively, communitarianism, rights of membership, community need, the state as planner, and holism.

The ideological shifts to a focus on community interest that are described in Professor Lodge's book have emerged in various ways—the right to equal opportunity for employment, environmental legislation, and energy planning, to name a few. In the future we will see more examples and will understand better those that already have taken place.

Psychology of Entitlement

There probably always has been a "psychology of entitlement," that is, a belief that one is entitled to certain things as a "right." However, the particular things to which people feel they are entitled have varied.

A recent survey conducted by the Institute of Life Insurance is most revealing. Table 1 shows the results of replies to the question of whether the respondents believe that everyone, whether or not he or she can pay for it, has a right to the following: an adequate pension at retirement, adequate support for dependents upon the death of the breadwinner, comprehensive health care, decent housing, a college education, and a guaranteed income of at least $6,000.

As Table 1 indicates, in every instance a large proportion of the

TABLE 1*

PSYCHOLOGY OF ENTITLEMENT

Response	Everyone Has a Right to:					
	Adequate Pension at Retirement Age	Adequate Support of Dependents upon Death of Breadwinner	Comprehensive Health Care	Decent Housing	College Education	Guaranteed Income of at Least $6,000
Agree entirely	73%	64%	67%	61%	32%	44%
Agree somewhat	21	28	25	28	37	20
Disagree somewhat	3	6	6	7	20	17
Disagree entirely	3	2	2	4	11	19

SOURCE.—*1975 Survey Monitoring the Attitudes of the Public* (Institute of Life Insurance, 1975).

* This table summarizes the responses of the public to the following query: "People have different ideas about what everyone in this country has a right to, whether he or she can pay for it or not. Here is a list of things that might be included. Please tell me for each one whether you agree entirely, agree somewhat, disagree somewhat, or disagree entirely that everyone should have it."

respondents replied that everyone has a right to these economic items. There seems little doubt that if a similar survey had been undertaken twenty-five years ago the results would have been significantly different.

Family Patterns—Changing Role of the Sexes

Perhaps nothing has as much potential for significant impact on the future social and economic contexts of our financial security systems as the changes that have taken place in recent years in our family patterns, particularly with regard to the changing role of women. Our financial security systems were developed for an industrial society in which marriage was presumed to be for life; the care of the household and the raising of children were the principal occupations for the wife; and the economic unit consisted of a male breadwinner earning income away from the household, a housewife, and several dependent children. In recent years, however, much of this has changed. First, there has been an increase in the proportion of households headed by women. According to the Bureau of the Census, in 1950 there were 39,303,000 families in the United States. Of these, 88 percent included both a husband and a wife, 9 percent were headed by a female, and 3 percent included only the male adult. By 1975, however, of the 55,712,000 families 84 percent included both a husband and a wife, the percentage headed by women had increased to 13 percent, and 3 percent included only the male adult.[8]

Much more dramatic changes have occurred in the proportions of women in the labor force. The proportion of adult women in all age groups under 65 who are actively participating in the labor force has increased dramatically in recent years and is expected to continue to increase in the future. Overall, the percentage of women aged 16 and over who are in the labor force has increased from 33.3 percent in 1950 to 46.8 percent in 1976. By contrast, the participation rate for males has decreased, from 84.3 percent in 1950 to 76.9 percent in 1976. This is illustrated in Table 2.

Table 3 shows increasing labor force participation for married women from 1950 through 1976. The following should be noted:

1. In 1950 only 23.8 percent of all married women were in the labor force, as compared with 30.3 percent of those without children. By 1976 the proportions had increased to 45.0 percent and 43.8 percent, respectively.
2. The presence of children from ages 6 to 17 in the home appears to serve as an incentive for a woman to enter the labor force (53.7 percent in 1976). On

[8] United States Bureau of the Census, *Current Population Reports*, Ser. P-20.

TABLE 2

LABOR FORCE PARTICIPATION RATES BY AGE AND SEX, 1950–90 (PROJECTED)

	1950	1960	1965	1970	1975	1976	1980*	1990*
Males:								
16–17	51.6%	45.9%	44.1%	46.7%	48.5%	48.4%	50.4%	50.6%
18–19	78.6	73.1	68.3	68.8	72.1	72.1	72.9	72.9
20–24	90.2	88.9	86.2	85.1	84.6	85.2	84.3	82.6
25–34	93.6	96.4	96.0	95.0	94.2	94.2	94.2	93.7
35–44	93.0	96.4	96.2	95.7	94.8	94.6	94.6	93.9
45–54	93.5	94.3	94.3	92.9	91.1	90.6	90.3	89.3
55–64	86.4	95.2	83.2	81.5	74.8	73.5	73.3	69.0
65 and over	41.9	32.2	26.9	25.8	20.8	19.4	19.1	16.1
All males aged 16 and over	84.3%	82.4%	80.1%	79.2%	77.3%	76.9%	77.2%	76.6%
Females:								
16–17	29.7%	28.6%	27.5%	34.6%	40.0%	40.6%	42.9%	46.6%
18–19	50.6	51.0	48.6	53.4	58.1	58.9	60.5	63.6
20–24	45.5	46.1	49.7	57.5	63.9	65.0	68.4	75.1
25–34	33.5	35.8	38.5	44.8	54.3	56.9	57.3	63.4
35–44	38.1	43.1	45.9	50.9	55.6	57.6	58.1	62.8
45–54	38.1	49.3	50.5	54.0	54.3	54.6	56.7	60.1
55–64	27.5	36.7	40.6	42.5	40.6	40.7	41.6	42.0
65 and over	8.9	10.5	9.5	9.2	7.8	7.8	7.6	7.2
All females aged 16 and over	33.3%	37.1%	38.8%	42.8%	43.7%	46.8%	47.8%	50.7%
Total population aged 16 and over	58.5%	59.2%	58.8%	60.3%	60.9%	61.2%	61.9%	63.1%

SOURCE.—United States Bureau of Labor Statistics, *Special Labor Force Reports.*

* A discussion of the projections and the methodology in developing them can be found in the Bureau of Labor Statistics *Special Labor Force Report,* December, 1976

the other hand, the presence of children under age 6 in the home tends to keep women out of the labor force (37.4 percent in 1976).

3. A comparison of the percentages in Table 3 with those in Table 2 indicates that the percentage of married women in the labor force is now significantly closer to that for all women than in the past (45.0 percent versus 46.8 percent in 1976, as compared with 30.5 percent versus 37.1 percent in 1960 and 23.8 percent versus 33.3 percent in 1950).

These figures must be interpreted carefully. They probably indicate that for women marriage is today less of a deterrent to working outside the home than in the past. The age at first birth is increasing, indicating that many women may be gaining experience and earning credentials so that they will have a place in the labor force even if they drop out for a few years. However, most women work because of perceived economic need. The combination of inflation, an increasing number of households headed by women, and continued rising expectations has driven many women out of the home and into the labor market for financial reasons. Almost two-thirds of the women in the labor force in 1973 were single, divorced, separated, or had husbands earning less than $7,000 a year. The median contribution in 1972 from all working wives was 27 percent of family income, and their median earnings were $3,682. Among wives who worked full time throughout the year, the contribution was nearly 40 percent of family income and median earnings were $6,005.[4]

TABLE 3

PARTICIPATION RATE OF MARRIED WOMEN IN THE LABOR FORCE ACCORDING TO PRESENCE OF CHILDREN, 1950–76

Year	All Married Women	Presence of Children under 18 Years		
		None Present	6–17 Years Only	At Least One under 6 Years
1950	23.8%	30.3%	28.3%	11.9%
1955	27.7	32.7	34.7	16.2
1960	30.5	34.7	39.0	18.6
1965	34.7	38.3	42.7	23.3
1970	40.8	42.2	49.2	30.3
1975	44.4	43.9	52.3	36.6
1976	45.0	43.8	53.7	37.4

SOURCE.—United States Bureau of Labor Statistics, *Special Labor Force Reports.*

[4] Datatrack No. 1 (Institute of Life Insurance, 1974).

Family Patterns—Birth Rates

The increasing proportion of women in the work force has been related in part to changes in the birth rates. Table 4 shows that the birth rate has been dropping sharply in recent years and that during the past several years it has dropped to the point where the "intrinsic rate of natural increase" (defined in the note to the table) has turned negative. If maintained over time, a negative intrinsic rate of natural increase eventually would result in a decreasing population.

An interesting aspect of the decreases in birth rates is shown in Table 5, which shows birth rates by live-birth order. Table 5 indicates that the birth rate for first births has decreased only slightly, whereas the birth

TABLE 4

INTRINSIC RATE OF NATURAL INCREASE, 1940–75*

Period or Year	Total Fertility Rate	Intrinsic Rate of Natural Increase
Annual average:		
1940–44	2,523	4.6%
1945–49	2,985	11.7
1950–54	3,337	16.8
1955–59	3,690	21.1
1960–64	3,459	18.6
1965–69	2,636	8.2
1965	2,928	12.1
1966	2,736	9.7
1967	2,573	7.4
1968	2,477	5.9
1969	2,465	5.7
1970	2,480	6.0
1971	2,275	2.8
1972	2,022	−1.7
1973	1,896	−4.2
1974	1,857	−5.0
1975	1,799	−6.1

SOURCE.—United States Center for Health Statistics, Vital Statistics of the United States, annual publication.

* The total fertility rate is the number of births that 1,000 women would have in their lifetime if, at each year of age, they experienced the birth rates occurring in the specified calendar year. A total fertility rate of 2,110 represents "replacement level" fertility for the total population under current mortality conditions. The intrinsic rate of natural increase is the annual rate that eventually would prevail if a population were to experience, at each year of age, the birth rates and death rates occurring in the specified calendar year and if these rates remained unchanged over a long period of time and under conditions of no net migration.

TABLE 5

BIRTH RATES BY LIVE-BIRTH ORDER, 1950–74

(Births per 1,000 Women 15–44 Years Old)

Live-Birth Order	1950	1955	1960	1965	1968	1969	1970	1971	1972	1973	1974
First birth	33.3	32.9	31.1	29.8	32.1	32.8	34.2	32.1	29.9	28.8	28.9
Second birth	32.1	31.9	29.2	23.4	22.5	23.4	24.2	23.1	21.5	21.1	21.5
Third birth	18.4	23.1	22.8	16.6	13.2	13.4	13.6	12.5	10.7	9.8	9.6
Fourth birth	9.2	13.3	14.6	10.7	7.5	7.4	7.2	6.4	5.3	4.6	4.2
Fifth birth	4.8	7.2	8.3	6.4	4.2	4.0	3.8	3.3	2.7	2.2	1.9
Sixth and seventh births	4.7	6.4	7.6	6.0	3.9	3.5	3.2	2.8	2.2	1.8	1.5
Eighth birth and over	3.6	3.8	4.3	3.7	2.3	2.0	1.8	1.5	1.2	.9	.8
Total	106.2	118.5	118.0	96.6	85.7	86.5	87.9	81.8	73.4	69.2	68.4

SOURCE.—United States National Center for Health Statistics, Vital Statistics of the United States, annual publication.

rate for all other categories is down sharply, particularly for third and subsequent births. In other words, people today seem to be just about as willing to have a first child but definitely are not willing to have as many children as their parents.

Family Patterns—Mortality Changes

Actuaries generally are familiar with the changes in mortality that have taken place during the past century. The trend of mortality rates since 1900 is shown in Table 6. This table indicates that, although there has been significant improvement in mortality at all ages, the largest percentage improvements have taken place at the ages under 65. This is

TABLE 6

MORTALITY RATES PER 1,000, TOTAL UNITED STATES POPULATION—1900–1970

Age	1900	1910	1920	1930	1940	1950	1960	1970
	Male							
Under 1	179.1	145.5	103.6	77.0	61.9	37.3	30.6	24.1
1–4	20.5	14.6	10.3	6.0	3.1	1.5	1.2	.9
5–14	3.8	3.0	2.8	1.9	1.2	.7	.6	.5
15–24	5.9	4.8	4.8	3.5	2.3	1.7	1.5	1.9
25–34	8.2	6.9	6.4	4.9	3.4	2.2	1.9	2.2
35–44	10.7	10.0	8.2	7.5	5.9	4.3	3.7	4.0
45–54	15.7	15.2	12.6	13.6	12.5	10.7	9.9	9.6
55–64	28.7	28.7	24.6	26.6	26.1	24.0	23.1	22.8
65–74	59.3	58.7	54.5	55.8	54.6	49.3	49.1	48.7
75–84	128.3	127.4	122.1	119.1	121.3	104.3	101.8	100.1
85 and over	268.8	255.8	253.0	236.7	246.4	216.4	211.9	178.2
	Female							
Under 1	145.4	117.6	80.7	60.7	47.7	28.5	23.2	18.6
1–4	19.1	13.4	9.5	5.2	2.7	1.3	1.0	.8
5–14	3.9	2.9	2.5	1.5	.9	.5	.4	.3
15–24	5.8	4.2	5.0	3.2	1.8	.9	.6	.7
25–34	8.2	6.1	7.1	4.4	2.7	1.4	1.1	1.0
35–44	9.8	7.9	8.0	6.1	4.5	2.9	2.3	2.3
45–54	14.2	12.1	11.7	10.6	8.6	6.4	5.3	5.2
55–64	25.8	23.7	22.4	21.2	18.0	14.0	12.0	11.0
65–74	53.6	52.4	50.5	46.8	42.2	33.3	28.7	25.8
75–84	118.8	117.4	115.9	106.6	103.7	84.0	76.3	66.8
85 and over	255.2	246.0	244.7	221.4	227.6	191.9	190.1	155.2

SOURCE.—United States National Center for Health Statistics, Vital Statistics of the United States, annual publication.

because the major public health improvements have come in areas such as childhood and other infectious and contagious diseases, childbirth, sanitation, and nutrition. Chronic ailments and the degenerative diseases associated with aging have shown relatively less improvement compared with the acute diseases affecting younger persons.

An interesting characteristic of the mortality improvement is that the variability of life spans has decreased. In other words, the standard deviation of the age at death has decreased as the mortality curve has dropped to nearly zero at the younger ages, only to rise sharply as the degenerative diseases take their toll. This is illustrated by Table 7, which shows that the standard deviation of the age at death has decreased from 13.74 to 12.59 years during the past century. Thus, in this respect at least, we live in a more predictable era than in the past.

The changing mortality patterns have resulted in a major change in the relative numbers of men and women at older ages. At ages 65 and over, there were 102 males for each 100 females in 1900. By 1975, however, there were only 69 males for each 100 females, and by the year 2000 it is estimated that there will be only 65 males for each 100 females.[5]

When one considers the combined effect of the longer life span of today's women and the smaller average family size discussed previously, it becomes apparent that today's women, unlike their mothers and grandmothers, can expect to have a lengthy period in their adult lives during which they will have completed the job of raising their children and yet will be still young and vital enough to be interested in some form of employment. When this factor is coupled with the greater perceived economic necessity of a second income in the family due to the combination of inflation and rising expectations, it is not surprising that the proportion of women working outside the home has increased, and that they are demanding equitable treatment by employers and society.

TABLE 7

LIFE EXPECTANCY AND STANDARD DEVIATION OF AGE AT DEATH

	Mortality Table		
	American Experience	1941 CSO	1958 CSO
Period on which table is based	1843–58	1930–40	1950–54
Mean life expectancy for male aged 35	31.78 years	33.44 years	36.69 years
Standard deviation of age at death	13.74 years	13.06 years	12.59 years

[5] Datatrack No. 3 (American Council of Life Insurance, 1976), p. 27.

Family Patterns—Marriage

There appear to be major changes taking place in the attitudes of young people concerning marriage. Table 8 shows the median age at marriage for selected years from 1890 to 1976. In 1890 the median age was 26.1 years for men and 22.0 for women. From 1890 to 1950, these figures decreased gradually to 22.8 and 20.3 years, respectively. The 1950 figures also applied in 1960, but then the trend reversed and in 1976 the median ages were 23.8 for men and 21.3 for women. As a result, the percentage of single men in the 20–24 age bracket increased from 53 percent in 1960 to 62 percent in 1976; for women the corresponding percentages were 28 percent in 1960 and 43 percent in 1976.

Family Patterns—Divorce

Another significant change of recent years involves the divorce rate. Table 9 shows the rate of divorce from 1910 to 1976 and indicates that there has been a steady increase since the early 1960s. The 1976 rate of 5.0 per 1,000 population was double that of ten years earlier.

There probably are a number of reasons for the increased divorce rate. Certainly there is far less social stigma to divorce than there used to be, and far more acceptance of the concept that divorce is preferable to the continuation of a marriage that is proving to be a burden on the parties involved. Also, there is a widespread feeling that the state should not force the continuation of a marital relationship when either party wants it terminated. These changing attitudes have led to the passage of no-fault divorce laws in most states, which has made divorce easier for many people. Another important factor may be the increased participation by women in the labor force. Women who are economically self-sufficient are able to manage a divorce more easily than those who are economically dependent on another person.

Demographic Changes

Changes in the birth and mortality rates have brought about changes in the age composition of the population, as shown by Table 10. The following trends should be noted:

1. The under 5 age group represents a significantly smaller proportion of the population than in earlier decades. It is projected that the proportion will continue at this lower level.
2. The 65 and over age group has grown substantially and is projected to continue to increase both in number and as a percentage of the total.
3. The proportion of the population in the 18–39 age group has increased in recent years, and further increases are projected. This growth reflects the relatively high birth rates of the 1950s.

In recent years there has been growing concern about the rising cost of OASDI benefits, particularly the increased costs projected for the next few decades. This has resulted in pressure to defer or eliminate mandatory retirement. The projected increases are the results of two principal factors. First because of the overindexed benefit formula (corrected under recent legislation) there had been a gradual increase in "replacement ratios"

TABLE 8

MEDIAN AGE AT FIRST MARRIAGE, 1890–1976

Year	Male	Female
1890	26.1	22.0
1900	25.9	21.9
1910	25.1	21.6
1920	24.6	21.2
1930	24.3	21.3
1940	24.3	21.5
1950	22.8	20.3
1960	22.8	20.3
1970	23.2	20.8
1976	23.8	21.3

SOURCE.—United States Bureau of the Census, *Current Population Reports*, Ser. P-20.

TABLE 9

DIVORCE RATE, 1910–76

Year	Divorce Rate per 1,000 Population	Year	Divorce Rate per 1,000 Population
1910	0.9	1965	2.5
1915	1.0	1966	2.5
1920	1.6	1967	2.6
1925	1.5	1968	2.9
1930	1.6	1969	3.2
1935	1.7	1970	3.5
1940	2.0	1971	3.7
1945	3.5	1972	4.1
1950	2.6	1973	4.4
1955	2.3	1974	4.6
1960	2.2	1975	4.9
1961	2.3	1976	5.0
1962	2.2		
1963	2.3		
1964	2.4		

SOURCE.—United States National Center for Health Statistics, Vital Statistics of the United States, annual publication.

TABLE 10

POPULATION BY BROAD AGE GROUPS, 1920–2000 (PROJECTED)

(Numbers in Millions of Persons)

YEAR	TOTAL	AGE GROUP: Under 5		5–17		18–39		40–64		65 and Over	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1920..	106.5	11.6	10.9%	28.0	26.3%	38.3	36.0%	23.7	22.2%	4.9	4.6%
1925..	115.8	12.3	10.6	30.2	26.1	40.9	35.3	26.2	23.0	5.8	5.0
1930..	123.1	11.4	9.3	31.6	25.7	43.7	35.5	29.6	24.1	6.7	5.4
1935..	127.3	10.2	8.0	31.4	24.7	45.2	35.5	32.7	25.7	7.8	6.1
1940..	132.1	10.6	8.0	29.8	22.5	47.7	36.1	35.1	26.6	9.0	6.8
1945..	139.9	13.0	9.3	28.6	20.4	49.8	35.6	38.1	27.2	10.5	7.5
1950..	152.3	16.4	10.8	30.9	20.3	51.5	33.8	41.1	27.0	12.4	8.1
1955..	165.9	18.6	11.2	37.2	22.4	51.1	30.8	44.6	26.9	14.5	8.7
1960..	180.7	20.3	11.2	44.2	24.5	51.6	28.6	47.9	26.5	16.7	9.2
1965..	194.3	19.8	10.2	49.9	25.7	54.8	28.2	51.3	26.4	18.5	9.5
1970..	204.9	17.2	8.4	52.5	25.6	61.1	29.8	54.0	26.4	20.1	9.8
1975..	213.5	15.9	7.5	50.4	23.6	70.1	32.8	54.7	25.6	22.4	10.5
1976..	215.1	15.3	7.1	49.9	23.2	72.1	33.5	54.9	25.5	22.9	10.7
1980*	222.2	16.0	7.2	46.0	20.7	79.7	35.9	55.6	25.0	24.9	11.2
1985*	232.9	18.8	8.1	43.5	18.7	85.0	36.5	58.3	25.0	27.3	11.7
1990*	243.5	19.4	8.0	45.3	18.6	85.5	35.1	63.4	26.1	29.8	12.2
2000*	260.4	17.9	6.9	51.1	19.6	79.5	30.6	80.0	30.7	31.8	12.2

SOURCE.—Department of Commerce, Series II projections.

* Projected.

(the ratios of the initial benefits to the earnings just prior to retirement). Second, the ratio of beneficiaries to covered workers has increased because of the decreased birth rates of recent years. With the projected continuation of low birth rates, sharply greater increases in this ratio are expected in the decades ahead, especially after the year 2010.

The magnitude of these two factors is illustrated in Table 11 and Figure 1. Table 11 shows the relationship of OASDI expenditures to FICA taxes through the year 2050, based both on the law prior to the 1977 amendments and on an illustrative alternative law under which the replacement ratios would remain constant. As the table indicates, over the next fifty years expenditures expressed as a percentage of taxable payroll would have more than doubled under the law prior to the 1977 amendments, and would increase by two-thirds even if the replacement ratios were frozen. Figure 1 shows the projected number of OASDI beneficiaries per 100 covered workers through the year 2050. The figure indicates that this number is projected to increase only slightly between now and the year 2005, but then to increase at a rapid rate until about 2035, at which point a slight decrease is expected to begin.

TABLE 11

ARITHMETIC AVERAGE OF EXPENDITURES, TAX INCOME, AND DEFICITS EXPRESSED AS A PERCENTAGE OF TAXABLE PAYROLL

Time Period	Law Prior to 1977 Amendments			Illustrative Alternative Law		
	Expenditures	Tax Income	Deficit	Expenditures	Tax Income	Deficit
1976–2000	11.81%	9.90%	1.91%	11.58%	9.90%	1.68%
2001–2025	17.95	11.10	6.85	14.91	11.10	3.81
2026–2050	27.04	11.90	15.14	19.30	11.90	7.40
1976–2050	18.93	10.97	7.96	15.25	10.97	4.28

SOURCE.—United States Social Security Administration, 1976 trustees' report.

Changing Economic Trends

The severe inflation of the past few years has had major consequences upon the financial security systems. This inflation has decreased the effectiveness of conventional life insurance coverage, caused substantial underwriting problems in such inflation-sensitive lines of insurance as automobile and hospitalization, and raised serious questions concerning the ability of pension plans to fulfill the expectations of those covered under the plans.

Table 12 shows the trend of the consumer price index (CPI) from 1935 to 1975. As the table indicates, the rate of inflation has been highest during the past few years. The only years during which the rate was not much lower were those immediately following World War II, when there was a sudden surge of prices because of economic conditions created by the war.

The CPI is used as a direct factor in determining benefits under social security, many public employee retirement plans, and some private

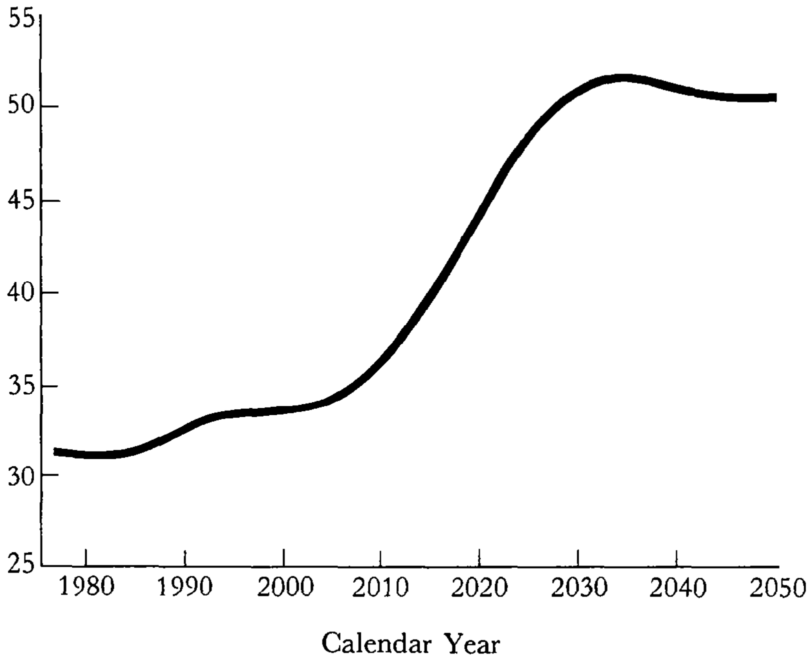

FIG. 1.—Projected beneficiaries per hundred covered workers, 1976–2050. Principal assumptions: Mortality rates were assumed to decline overall by about 15 percent from 1976 to 2050. Fertility rates were assumed to continue decreasing to 1.75 children per woman in 1977 and then increase slowly to an ultimate rate of 1.90 children per woman in 2005. Female labor force participation rates were projected to increase to an ultimate level 22 percent greater than the 1975 level. The unemployment rate for the total labor force was assumed to be 5 percent after 1981. Disability incidence rates were projected to continue increasing to a level 33 percent higher than the 1975 level. Under these assumptions the population would grow from its level of 223 million in mid-1975 to 274 million by the year 2015, remaining slightly above that level through the year 2050. (*Source:* United States Social Security Administration, 1976 trustees' report.)

TABLE 12

CONSUMER PRICE INDEX, 1935-75

(1967 Index = 100)

Year	Consumer Price Index	Percent Change in 5 Years
1935	41.1	....
1940	42.0	2.2%
1945	53.9	28.3
1950	72.1	33.8
1955	80.2	11.2
1960	88.7	10.6
1965	94.5	6.5
1970	116.3	23.1
1975	161.2	38.6

SOURCE.—United States Bureau of Labor Statistics, *Monthly Labor Review*.

pension plans, and is of major importance in determining year-by-year salary policy in many organizations. Changes in the CPI also affect salary-related benefits.

The CPI represents an overall average measurement of consumer price changes. It does not measure the way consumer price changes affect any particular individual. The effects on individuals vary greatly depending upon their consumption of various goods and services. This point is illustrated by Table 13, which shows the changes in selected components of the CPI between 1960 and May, 1977. Of the major categories, food has increased the most since the base period of 1967 (to 191.7), and apparel and upkeep the least (to 153.4). However, there have been much more substantial differences for certain items, some of which are shown in the table. For example, in May, 1977, fuel oil and coal reached an index of 282.6, whereas television sets cost about what they did in 1967 and significantly less than in 1960. Future price changes probably will continue to affect different persons in very different ways.

Growth of Social Welfare

The various "need-related" social welfare programs, designed to benefit specific groups, have grown very substantially in the past few years. Many different programs are involved, with benefits payable to different groups on the basis of specific demographic and other criteria. The effect of these programs on the poor and the people they benefit is not well understood because many of the programs overlap. For example,

TABLE 13

CONSUMER PRICE INDEX FOR SELECTED ITEMS AND GROUPS, 1960 TO MAY, 1977

(1967 Index = 100)

Commodity	1960	1970	1975	May 1977
Major categories:				
Food	88.0	114.9	175.4	191.7
Housing	90.2	118.9	166.8	187.6
Apparel and upkeep	89.6	116.1	142.3	153.4
Transportation	89.6	112.7	163.5	178.2
Health and recreation	85.1	116.2	153.5	172.3
Services	83.5	121.6	166.6	192.3
Selected items:				
Sugar	92.2	107.4	308.8	187.1
Coffee	94.0	119.0	172.9	486.2
Fuel oil and coal	89.2	110.1	235.3	282.6
Physicians' fees	77.0	121.4	169.4	204.3
Hospital, semiprivate rooms	57.3	145.4	236.1	295.9
Television sets	127.1	99.8	101.6	101.6
Automobile insurance rates	77.5	126.7	145.9	210.3
Overall Consumer Price Index	88.7	116.3	161.2	180.6

SOURCE.—United States Buteau of Labor Statistics, *Monthly Labor Review.*

it is estimated that 20 percent of the recipients are receiving benefits from five or more different programs.[6]

Overall, public welfare expenditures including social security were 8.2 percent of the gross national product in 1950, 14.8 percent in 1970, and 19.1 percent in 1975. These expenditures increased by 11.9 percent from 1973 to 1974, by 19.7 percent from 1974 to 1975, and by 15.7 percent from 1975 to 1976.[7] Programs involving in-kind transfers (food stamps, medicaid, etc.) have grown far more rapidly than programs providing cash benefits.

IMPLICATIONS OF THE CHANGING SOCIAL AND ECONOMIC CONTEXTS

In the first part of this paper, the social and economic contexts of the principal financial security systems were outlined, and in the second part some of the important changes that appear to have taken place in these contexts were analyzed. In this final part, the authors will point out some of the implications of these changes with regard to the functioning of the various financial security systems, and will suggest some modifications

[6] *The Humanist,* March–April, 1977, p. 16.

[7] *Social Security Bulletin,* January, 1977.

that might be made to keep these systems functioning properly in the light of these changes.

Psychology of Entitlement

The belief that every individual has a right to various types of financial security and the rising expectations of society have put severe strains on both the public and the private sector.

The greater emphasis on the role of the public sector in providing financial security is one manifestation of the changing social context. In 1950 the government share of financial security expenditures was 34 percent. By 1973 it had increased to 52 percent.[8] Because of the current economic, social, and demographic trends, it appears likely that the public sector role will continue to grow even if there is no expansion in current programs.

Another manifestation of the change in the social context is a redefinition of the role and goals of the private sector. Today the private sector is asked to have a much different set of goals than it did twenty-five years ago. A strong segment of the public wants more business involvement in the solution of social problems. Workers, as a public affected by business, are viewed as having more rights, and business is viewed as having a larger obligation to the work force. The growth in consumerism and environmentalism also has influenced this redefinition of the private sector role.

The expanded role currently imposed on insurance companies is producing some interesting conflicts. Business always operates within a structure set by society. Reconciling competing goals is a function of management. In one sense, the purpose of the mutual insurance company should be to provide insurance at the lowest cost to its policyholders, and the purpose of the stock company should be to get the best return on investment for its shareholders. However, these purposes sometimes are in conflict with the need to provide coverage to everyone who requires it, the need to consider the impact of decisions on the community, the need to consider socially desirable investments, and similar factors. The solutions lie in finding compromises that will work best in meeting those goals to which society assigns the highest priorities.

The psychology of entitlement combined with the current widespread use of the insurance mechanism for financing health care and the cost of automobile accidents has produced a belief that everyone has the right to coverage. This raises the questions of how coverage can be provided to

[8] Datatrack No. 2 (Institute of Life Insurance, 1975), p. 26.

uninsurables and to marginal groups, and whether insurance companies should be required to cover unprofitable risks.[9] In the automobile insurance field and in certain areas of medical malpractice, these problems have been solved temporarily through the use of assigned risk pools or state-operated funds.

The belief in the right to insurance coverage is related to challenges of the risk classification system. It appears likely that, increasingly in the future, companies will have to justify their classification methods and regulators will have to justify the basis of their actions. The method of defining the group and the cost differentials among groups will have to be based on information that will stand up in court. Both the right to privacy and the expense will make it difficult for companies to develop information that can be used to justify classification. At the same time, the need for proper classification will grow if companies must insure every applicant.

The insurance company practices that will hold up in court may depend upon public policy as well as statistical considerations. For example, there seems to be no argument that mortality and morbidity differ by sex, but there is argument as to whether public policy should permit rate differences based on sex. The use of unisex tables already has emerged as an issue in the courts in connection with the determination of pension benefits, and if rate differentials by sex are not permitted the sale of individual life, health, and annuity products will be affected.

Where a practice is upheld by the courts, special-interest groups may seek legislation. For example, a recent court case (*Gilbert* v. *General Electric*) dealt with the matter of coverage of pregnancy in employer-provided disability plans. A group that did not like the outcome of the case is now seeking federal legislation.

The increased use of the courts in tort liability cases is another trend that can be attributed to the psychology of entitlement. Not only has the frequency of such actions increased, but verdicts are being awarded

[9] John D. Long views insurance as a possible instrument of social policy and as an appropriate means of redistributing wealth between groups of people who are dissimilar risks. He states: "Over the long-range future a large number of people may decide to use insurance to achieve a considerably wider redistribution of wealth than that traditionally achieved by insurance. Their behavior may come to reflect the belief that insurance—private as well as public—ought to be used to fight social ills and that underwriting should be subordinated to the more important considerations of public well-being. The people may decide that it is right and proper for insurance to be used to favor the property owner in a blighted area, the aged automobile owner, the slum dweller, the racially disadvantaged, the destitute, and others in difficult circumstances not primarily of their own making" (Long, *Ethics, Morality, and Insurance*, p. 107).

that would seem to be unjustified by past standards. This has been described by some in terms of "the injury creates the negligence." In the United States, motor vehicle damage verdicts in some states and malpractice and product liability verdicts in other states seem to be out of control. There are problems not simply of large awards but also of inconsistent awards in different cases.

Insurance has been used as an appropriate means of spreading the costs of certain crimes. Rising crime rates create severe insurance problems and have created problems of coverage availability in some areas. In this regard, Long states: "If the uptrend in the crime rate should develop into a sustained phenomenon or if the rate should stabilize at a relatively higher level than it is now, serious insurance problems could result. In fact, some already exist. For one thing, theft might become a peril no longer susceptible to insurance treatment because of the intolerably high frequency and severity of losses. Before this type of insurance would be withdrawn from the market, we might see the deductibles consistently enlarged, urbanized territories increasingly excluded, and the list of uninsurable properties considerably broadened."[10]

The changing social context goes to the very heart of the ideas on which the private insurance system is based. Individual coverage usually is based on the ethical premise that thrift is good and that an individual should provide for his own needs. In the extreme situation where all people achieve an equal result regardless of equality of contribution, there ceases to be the need for thrift or protection of individual resources or property, and there is no longer a need for a private insurance system.

Mortality Changes

We already have commented on the decrease in the variability of age at death. Today medical science is conducting an increasing amount of basic research pertaining to the nature and control of the aging process and of specific diseases such as cancer and heart disease. Success in any of these areas would have a major impact on mortality rates at the older ages.

The impact on our financial security systems of any such major decrease in mortality rates or change in life spans could be far-ranging. During the past few decades, the mortality improvement at ages under 65 combined with the general uptrend of interest rates has helped maintain profit levels for life insurance companies in spite of the decreases in profits due to lower annuity mortality. However, future major breakthroughs in aging research may result in sharply increased pension and annuity

[10] Long, *Ethics, Morality, and Insurance*, p. 96.

costs with relatively little offset in life insurance costs, although it probably will take a number of years for such breakthroughs to have their full impact.

Changes in Retirement Ages

During the past several decades, there have been trends toward earlier retirement and fixed retirement ages. However, recently there has been pressure to raise or eliminate mandatory retirement ages, and in the United States federal legislation now has established a minimum mandatory retirement age of 70. This pressure has come from two sources—concern over the right of the individual to work and concern over the costs of OASDI and retirement systems.

Several scenarios are possible for the future, the most extreme being that mandatory retirement might be prohibited. Retirements might be spread over a fairly wide range of ages, or they might be bunched at one or two ages. The bunching might continue to be at age 65, or it could move up to age 70.

A change in retirement ages would have impact on both insurance products and pensions. The design of many life and health insurance products is based on the assumption of a normal retirement age of 65. These products may need to be more flexible, with less advance determination of what the purchaser plans to do at various ages. Disability income products need to be designed to protect the company against claims at time of retirement, but also to provide coverage during the full working lifetime of the employee.

For group coverages, greater coordination might be provided between disability benefits and pension plans, whether the disability benefit is part of the pension plan or is provided separately. This coordination will be particularly important if retirements tend to be spread over a wide range of ages. Individual coverages might be guaranteed renewable only to the lower end of the possible range of retirement ages, with renewal underwriting after that age based on continued employment at wages that support the benefit. It should be remembered that, if retirement ages increase and benefit levels are unchanged, pension costs will decrease but costs for disability insurance probably will increase if the coverage is extended to the higher age.

The normal retirement age for social security benefits might be raised if prevailing retirement ages rise. If benefits are not increased and actual retirements are postponed beyond age 65, the cost pressure on the system should be reduced significantly. If retirements become spread over a wide range of ages, it may be desirable to redesign social security benefits and to reconsider the types and amounts of work that are allowable without loss of benefits.

A change in retirement ages also would require a careful reevaluation of the design of pension plans. A change in the normal retirement age for determining benefits would require review and probably modification of benefits in many cases. If the normal retirement age were less than the mandatory retirement age or if there were no mandatory retirement age, there probably would be pressure to provide benefit accruals after the normal retirement age or at least actuarially equivalent benefits for people retiring at a later age. Also, integrated plans would need to be modified to reflect changes in social security provisions.

Three areas in ERISA may have to be rethought and modified because of the social changes described. First, ERISA provides for a joint and survivor annuity as the normal form of annuity payout to married participants, with the spouse as the contingent annuitant. This assumes that the spouse can be defined, and that the economically interdependent family unit will consist of two spouses. Second, ERISA requires that a preretirement death benefit be provided to the spouse when early retirement is possible. If retirement is possible over a wide range of ages, early retirement may cease to be a meaningful concept. Finally, ERISA provides those persons hired within five years of normal retirement age may be excluded from the pension plan, and permits a service requirement of up to ten years for the receipt of pension benefits. These provisions will have to be modified if "normal retirement age" no longer represents a single age but rather a wide range of ages.

Changing Role of the Sexes

In financial security systems, there is need to accommodate different individual and family patterns. The increasing divorce rate means that there is an increasing need to recognize the economic contribution of the homemaker, at least in terms of creating entitlement to future retirement benefits. "Retirement income credits" earned by a family, whether in the public or the private sector, need to be allocated in some way between adult family members.

Two-worker families where both workers have benefit programs need to be given greater choices as to benefits. For example, there is no need to have overlapping health coverage provided by both employers. Also, individuals who do not need family and survivor benefits should be given alternative choices.

Marriage and Divorce

We have commented on the increasing divorce rate. A substantial percentage of persons who become divorced remarry eventually. As the process of "serial marriages" over life becomes more common, deferred benefits such as pensions will have to be structured to meet the needs of all family members more effectively.

Better protection is needed for divorced wives (or in some cases husbands) and their children. Individual life insurance, group life insurance, and social security benefits each can provide substantial income to the widow and children of deceased persons. No similar system exists to provide income to a divorced wife and dependent children. The former husband may be required to make alimony and child support payments, but often this proves to be a rather unreliable system and assistance from the welfare system is required.

Greater attention needs to be given to this part of the financial security system to ensure that the needs of all segments of the population are met in a logical and consistent way. To some extent, this might be accomplished by making as many adults as possible capable of being self-supporting and by providing good facilities for child care.

Family and Labor Force Patterns, Changing Social Patterns, and Interpretation of the Statistical Base

The measurement of marriage, divorce, and family status probably will become increasingly difficult in the future. There is need to understand family formation and breakdown. The definitions of family formation and breakdown can be elusive and may differ depending on the purposes for which they are needed. In some cases, legal rights and obligations depend upon the presence or absence of a legal marriage without regard, say, to whether or not a married couple actually is living together as a family. For example, social security and pension plans pay benefits to spouses, and United States income taxes are different depending on whether the taxpayer is single or married. On the other hand, certain welfare benefits are not paid if a man is present in the household, regardless of his marital relationship.

The authors suggest that the following factors could be considered in defining whether there is a current family for income security purposes:

1. Are the parties legally married?
2. Are the parties living in the same household?
3. Is there some sharing of income, expenses, and responsibilities for managing the household?

4. Is there a pooling of assets or a defined financial arrangement between the parties?

It should be pointed out that, although families traditionally have been viewed as having two adult members, there is no reason why in the future other family patterns with different interdependent financial relationships may not be possible.

Changing social patterns also have affected unemployment and underemployment, which have been significant problems for a number of years. These problems are likely to continue as educated younger people are underutilized; older people are able and want to work longer; an increasing number of women want to stay in the labor force, or return to the labor force after bearing children; further automation displaces workers; and minority groups exert increased pressure for adequate representation in the labor force. However, some of these pressures may decline, because fewer young people may be entering the labor market in a few years as a result of the decreased birth rates since the early 1960s. Table 10 shows that the age 18–39 population is expected to increase only very slightly from 1980 to 1985 and to decrease from 1990 to 2000.

In the future, there may need to be a redefinition of what is an economically valuable contribution to society, a review of retirement (with some midcareer temporary "retirements"), and new definitions of employment and unemployment. More basically, it may become necessary to review the system used to measure individual entitlement to current earned income and the benefits provided by security systems related to unemployment and retirement.

Inflation

There are a number of causes of inflation, but among them certainly are the change in the overall social context and the growth of the psychology of entitlement. The creation of new claims on income can result in a redistribution or increase in income to meet demands. If this does not occur, inflationary pressures usually are increased as new demand is created without compensating increases in the production of goods or services.

We already are beginning to experience serious shortages of raw materials and energy, and we have seen that sharp increases in prices can result. These shortages probably will become more severe and the costs of extraction of the materials will increase. The effects might be to force a lower standard of living on our society.

In the future, inflation well may serve as a mechanism by which our society will adjust to this lower standard of living. As was shown by Table 13, these adjustments may affect different persons to different degrees. While some segments of society may be able to protect themselves from inflation and therefore from the collective belt-tightening, most will not be able to do so. Considerable governmental and private planning may be necessary in order to prevent dislocations that would not be tolerable within certain segments.

Inflation has a number of direct impacts on the security systems themselves. Security in terms of purchasing power is an important need. Financial security systems operating over long periods of time, such as life insurance and pension programs, are far less effective if the purchasing power of the benefits does not relate reasonably to the needs of the persons covered by the systems. Actuaries face an increasingly difficult challenge to design systems that will provide adequate benefits. Final-pay plans can protect pensions against inflation prior to retirement, but except for social security there has been a failure to develop a general system that will protect the purchasing power of pensions following retirement. Cost-of-living provisions can do so, but such provisions are expensive and have not been incorporated into many plans.

Any severe economic dislocation resulting from inflation may have other impacts on security systems, as follows:

1. Lapse rates on insurance policies may rise.
2. Policy loans may increase.
3. Life insurance sales may shift toward term coverages.
4. Disposable income available for savings and investments may decrease.
5. Health may be affected adversely, causing increases in medical and disability income insurance claim costs.
6. Unemployment may lead to loss of employee benefits.
7. Contributions over each worker's lifetime to fund pension plans may, as the benefits become due, prove inadequate because of actuarial losses and benefit increases. Therefore, an increasing share of pension costs may be paid near or after retirement.

Inflation also affects the investment results over time. In times of severe inflation, investments that preserve the value of capital may not be available, in which case funding will not work. This is another problem that will present actuaries with an increasing challenge in the years to come.

SUMMARY

In this paper the authors have attempted to analyze the social and economic contexts of our financial security systems, to discuss the social and economic changes that have taken place in recent years as they relate to these systems, and finally to comment on the impact these changes may have upon the systems.

We agree with Professor Lodge that the United States is in the midst of a great transformation. This transformation is manifesting itself in a number of areas that should be of concern to actuaries. The changing demographics resulting from lower birth rates, the changing roles of the sexes as more women seek meaningful careers, new patterns of family formation and breakdown, and increasing demands by special interest groups that no group be subject to discriminatory practices are but a few of the trends that will be of major concern to actuaries in the coming years. We also believe that these problems will be compounded by economic discontinuities as the United States moves from an era of cheap energy derived from oil and gas to an era involving new and more expensive sources of energy, and as food and other natural resources become scarce at times.

We have presented our interpretation of the societal trends and developments that affect financial security systems. However, the future is uncertain, and we believe that every actuary who makes projections of financial security systems has a responsibility to study societal trends and to form his or her own conclusions about suitable assumptions for these systems. We hope that this paper will provoke dialogue as to the meaning of the data presented.

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