RECORD OF SOCIETY OF ACTUARIES
1976 VOL. 2 NO. 1

INDIVIDUAL LIFE PRODUCTS

Moderator: NICHOLAS BAUER. Panelists: ROBERT M. ASTLEY, JAY M. JAFFE, ANNA M. RAPPAPORT, RICHARD S. ROBERTSON.

(See Mr. Bauer's remarks on page 45 for topics discussed.)

MRS. ANNA M. RAPPAPORT: Discussion Note --

ECONOMICS, INFLATION, AND THE RESPONSIBILITY OF THE ACTUARY

Two concerns of actuaries are that the operations for which they perform services remain in good financial condition, and that the benefits and products that the organizations employing them provide are responsive to the consumer needs.

Actuaries must make assumptions about the probabilities that future events will occur, and try to envision conditions that will affect the business. Thus they must study both internal and external factors that will affect future experience. Economic conditions are one of the key factors affecting the operation of every insurance business and retirement plan; they affect the levels of experience with regard to many variables such as interest rates, salary scales, expenses, and health care costs. Economic conditions also have an impact on how well insurance and pension plans do the job for the consumer.

This discussion note will review the provisions of the "Guides to Professional Conduct", showing when it is the responsibility of actuaries to deal with economic variables. It will suggest how that responsibility can be met.

In so doing, it will deal with economic variables as they are related to the actuary's fundamental responsibility and it will also deal with the way that responsibility has been codified.

<u>Provisions of the "Guides to Professional Conduct" relating to inflation and economics</u>.

Two Guides seem relevant to the responsibility of actuaries in dealing with economics and inflation.

Guide 4(a):

> "The member will customarily include in any report or certificate quoting actuarial costs, reserves, or liabilities a statement or reference describing or clearly identifying the data and the actuarial methods and assumptions employed."

Guide 4(b):

> "The member will exercise his best judgment to ensure that any calculations or recommendations made by him or under his direction are based on sufficient and reliable data, that any assumptions made are adequate and appropriate, and that the methods employed are con-

sistent with the sound principles established by precedents or common usage within the profession."

Guide 4(a) appears to handle adequately the question of disclosure.

Guide 4(b) appears to cover the question of responsibility with regard to solvency, and the choice of assumptions that take into account current economic developments.

While the Guides do not explicitly deal with the question of economic developments, Opinion S-4 does so in connection with pensions, and the Financial Reporting Recommendations and Interpretations of the American Academy of Actuaries do so with regard to generally accepted accounting principles (GAAP) for financial reporting for stock life insurance companies. These two opinions provide evidence that economic conditions should be used in connection with selecting actuarial assumptions.

Opinion S-4, Item 2, states:

"2. The actuary's responsibilities in the pension field involve, to a high degree, considerations affecting the public interest. Accordingly, the Committee believes that he should give consideration to the following:

d. Selection of appropriate assumptions and cost methods.

e. Periodic analysis of experience in relation to assumptions.

f. Analysis of trends in benefits, cost factors, social and economic factors affecting pensions, investment policies, employee security, and the like."

Recommendation 1 of the Academy's Financial Reporting Recommendations and Interpretations states:

"3. The following should be among the elements considered by the actuary in choosing such actuarial assumptions:

c. Trends in experience results, economic and investment conditions, governmental or other external influences, and medical and social developments affecting the costs and financial requirements."

Appropriate assumptions have traditionally been thought of as building a margin. This margin is traditionally not viewed separately. However, the question of "most likely" assumptions, and adverse deviation from them, is dealt with explicitly in the published guidelines of the profession in connection with financial reporting and GAAP. "Most likely" assumptions and adverse deviations were probably not explicitly recognized because actuaries believed that appropriate assumptions should include an implicit element of conservatism. The American Institute of Certified Public Accountants' (AICPA) audit guide for stock life insurance companies, however, brought this question out into the open.

Recommendation 1 is amplified by Interpretation 1-A which reads:

> "4(a). Each actuarial assumption underlying GAAP reserves should be chosen with due regard to providing for the risk of adverse deviation, over and above the most likely assumption."

The published guides and opinions indicate that actuaries must disclose what they are doing, that they should take economic conditions into account, and that adverse deviations should be considered when appropriate. Further guides and opinions are likely in the future. For example, early in 1975 the Academy published an exposure draft dealing with the handling of inflation in pension funding. Today, actuaries need to define more clearly the impacts which will result from a change in economic conditions. They need to develop better tools for building this variation into cost estimates. The second part of this discussion will tie the actuary's responsibility to various functions which the actuary performs.

<u>What is the actuary's responsibility?</u>

Two major responsibilities of actuaries are measurement of financial conditions and development and pricing of products. A discussion of the following topics relates economic variables to those responsibilities.

1. Product design
2. Consistent handling of assets and liabilities
3. Selection of assumptions
4. Provision for handling adverse deviations

1. <u>Product development</u>. Products should be evaluated to see if they meet consumer needs under varying future economic conditions. New products should provide a logical pattern of benefits despite future economic changes. Actuaries have been working for the past twenty years on products designed to meet these problems. The major developments are variable annuities, pensions linked to the cost of living, life insurance linked to the cost of living, and variable life insurance. In addition, pension benefits can be increased on a one-time basis when economic conditions warrant such increase. So far, acceptance of all of these approaches has been limited.

   Much further work needs to be done. Variable annuities relate the annuity payment to the performance of a fund, usually one invested in equities. The experience of the last five years demonstrates clearly that with high inflation and low equity prices many annuitants received reduced benefits in a time of high inflation. Variable life insurance partially solves this problem with respect to death benefits by putting a floor on these benefits.

   Benefits linked to the cost of living have not received widespread acceptance. The major problems in developing such benefits are the unpredictable cost and development of a method of paying for them.

   Development of products which provide for security under varying economic conditions will be a major problem facing actuaries in the future.

Insurance and annuity products involve financial flows over a long period of time. Economic conditions must be taken into account in pricing assumptions.

2. Assets and liabilities. The balance sheet is the main measure of financial condition. It is of great importance that a consistent method of valuation be used for both assets and liabilities. The interest rate used should be consistent with the type of assets and asset structure.

3. Actuarial assumptions. In determining present values and prices, actuaries must make assumptions as to future rates of mortality, lapse, interest, expense, salary increase, withdrawal from employment, disability, and health care costs. Mortality is the only variable that is substantially independent of economic conditions. In North America the period 1945-1970 was characterized by stable economic conditions; it was possible to make assumptions without considering economic variations.

   Economic variations cannot be predicted accurately. Therefore, the actuary should look at varying conditions and provide for adverse conditions. Adverse conditions existing in one situation may be different from those in another. This has long been accepted. For example, in developing a mortality table for life insurance, the margin is included by adding to the mortality rates; for annuities, the margin is included by subtracting from the mortality rates. By handling the tables in this way, actuaries have selected assumptions in a way that provided for adverse deviations in mortality experience.

   Economic variations affect different variables in different ways. Inflation tends to raise interest on bonds, salary scales, health care costs, and expenses. Its effect on lapse and disability is not well known. Unemployment tends to raise the rate of disability claims. The financial impact of changes in these variables may tend to have an offsetting effect in some cases. However, costs and liability values may be very sensitive to how these changes are related. The actuary, therefore, should be prepared to test the effect of various changes in experience resulting from economic variations.

4. Provision for risk and adverse deviations. Actuaries are supposed to be experts in the scientific handling of financial risk. They deal with financial flows based on contingent events and use the probabilities of an event occurring to develop costs for insurance and pension plans. It has become customary for them to deal with contingent events in terms of expected values, and to use only a single value for each probability and variable. Risk is handled in that situation by including an element of conservatism in the probabilities.

   An alternative method of handling the risk associated with a series of financial flows is to calculate the flows under varying conditions and to look at a range of answers. This can be done in several different ways. First, the value can be calculated as a probability distribution, rather than as a single "most likely" value. Risk theory and simulation techniques provide two approaches to developing such a probability distribution. Second, three sets of assumptions, good, average, and poor experience, can be used as input for the calculation. The results can be termed optimistic, "most likely", and pessimistic answers. Third, a model can be developed, which is used to test the interaction of changes in a wide variety of factors and assumptions. Inflation impacts on a variety of assumptions, and the interaction of the impact on the total picture can be quite complex and not always predictable by general reasoning. Therefore, testing the impact of assumption changes, using a model, would seem to be the best method.

Although a range of values can be calculated, a balance sheet must show each liability as a single value; this value should make reasonable provision for adverse deviation. Future inflation should be viewed as an adverse deviation. In some cases it may be desirable to show a balance sheet item in two parts, an expected "most likely" value and a contingency reserve.

In some situations, regulatory bodies or accounting standards may dictate an acceptable basis for establishing a liability. Then the actuary should disclose the basis used if such standards do not make adequate provision for adverse deviation.

Conclusion

Actuaries today face a challenge in choosing the proper assumptions. The future cannot be assumed to be a projection of the past. The early 1970s show that the relative effect of inflation on prices and wages can shift very rapidly. While economic conditions can be studied and projected, as projections are never certain, we must provide for alternative scenarios. Fairly small changes in assumptions can produce big changes in costs. The change in the relationship of variables can be just as important as changes in their levels. For example, inflation affects both wages and prices. A pension plan can be set up to reflect wage rates in the funding and cost-of-living changes in the benefits; a change in the relationship of the two factors can be just as significant as a change in the overall inflation level. Actuaries must look at alternative futures and consider, today more than before, the impact of adverse deviations and how best they can be handled.

MR. NICHOLAS BAUER: Our topic is Individual Insurance, how it is affected by the current environment, and some of the problems that we face. What are those crosscurrents which we face in our operations; what is the impact of these currents on our companies and on our markets; and what are the responses companies are thinking of, or should be thinking of, in facing these problems?

MRS. RAPPAPORT: This morning Mr. Trowbridge mentioned five external areas that actuaries should be particularly concerned about. Other speakers talked about the economic environment. My talk is going to focus on some other areas: on demographics and on value-system changes, as well as on the questions of financial security and money.

A speaker at a recent seminar on "Strategic Planning in a Period of Transition" stated that 5% of corporate decisions account for 80 to 85 percent of long-term results. He then explained that those decisions are often poorly made because those 5% of decisions involve coming to grips with the external environment. The corporation cannot control external factors, yet must deal daily with their effects.

I want to focus on three areas of the environment: first,financial security and money; second,demographic changes;and third, value systems.

Financial Security and Money - In constant 1974 U.S. dollars, per capita income went from $2,800 in 1947 to $5,600 in 1973, an increase of about 3% a year; from 1973 to 1974, it decreased by 3%, from $5,600 to $5,400. Median family income went from $7,000 to $13,400, then back to $12,800. It should be pointed out that much of the increase in family income is due to the increase in families having two wage earners.

Our society is very insurance and security conscious. In 1950, we spent 5.6% of Gross National Product (GNP) on personal security; by 1973 that had more than doubled to 12.7%. Transfer payments rose from 6.1% of personal income in 1947 to double that amount, 12.2% in 1974. The government share of security expenditures rose from 34% in 1950 to 52% in 1973. While the government's role in providing security has increased greatly, the life insurance company's share has dropped. Legal reserve life insurance companies had 52% of security expenditures in 1950 and only 29% in 1973. We have a society that's more affluent than in the past; we're more security conscious; the government, however, is playing an ever-increasing role in the providing of that security.

Demographics

The biggest change in family structure can be seen in the growth of the two-income family and the steady increase in working wives. Birth rates have changed dramatically over the last fifty years. The 30's were characterized by low birth rates. The post-war period was characterized by high birth rates. Birth rates have been declining since the 60's. There is currently a bulge in the 20-34 age group, this will continue over the next few years. Mortality rates are declining so that ultimately (after the year 2000) we will have many more people over age 65. Some of the trends that can be pointed to are smaller families, later age at first marriage, more frequent divorce, and later age at the birth of the first child. Childlessness is today considered socially acceptable; single parents adopt children; many view zero population growth as a worthwhile goal.

Youth are now going through a new life stage between adolescence and full adulthood, this has been called transadulthood. During this period, young people are staying in school longer, traveling,and exercising other options before assuming the role of full adults.

The number of single household heads is growing. In 1973, 15.4 million households were headed by women. The Conference Board projects that by 1980 one out of four households will by headed by an unmarried woman.

Education is coming to be viewed as a life-long process. No longer is it necessary to go to college right after high school. Career switching is also being accepted and becoming increasingly prevalent. Family and life patterns are changing; the change is significant to our business. People have more options today and will continue to have more options in the future.

Value-System Changes

What value-system changes have accompanied the demographic and financial changes?

People feel less control over their lives and more and more they are looking to others, to government and employers, to do more for them. The drop in income from 1973 to 1974 may have served to accentuate this loss of sense of control. There is also a growing psychology of entitlement. In a recent Institute of Life Insurance (ILI) survey more then 90% of the respondents said that dependents are entitled to support on the death of a breadwinner; that people are entitled to an adequate retirement income; that people are entitled to adequate health care. The effects of the psychology of entitlement and the security mindedness of our society can be seen in the increase in personal security expenditures which rose from 5.6% of GNP in 1950 to 12.7% in 1973. It can also be seen in the growth of transfer payments and in the increase in the government share of security expenditures from 34% in 1950 to 52% in 1973.

There is currently a legitimacy challenge in our society, resulting in challenges to institutions. This can be seen in terms of eroding confidence in business and government. Consumerism and questioning of the work ethic are evidence of the challenges. White collar crime has increased in both government and business.

The belief in limitless growth is also being challenged. The industrial era was based on the idea that growth was good and that the best thing for society was more and more. Today people are recognizing that growth cannot be unlimited. We have been faced with repeated resource shortages. Unlimited growth means environmental damage. In the industrial era it was believed that technology was value free and that science and technical development were an end in themselves. However, a value-oriented technology will be needed to progress beyond the industrial era. Science will be viewed as the <u>means</u> to an end rather than as the <u>end</u> itself.

There is a questioning of the system and a search for a greater quality of life--together with an expectation that others will do more.

In addition to the various tables contained in the Appendix to this Session, I would like to leave you with several references.

Trend Analysis Report #8 - The Life Cycle.

Trend Analysis Report #12 - A Culture in Transformation: Toward a Different Societal Ethic?

Datatrack Report #1 - Women.

Datatrack Report #2 - Financial Behavior and Personal Security.

(These reports are available from the Institute of Life Insurance.)

5% of decisions account for 80-85% of long-term corporate results; these decisions involve coming to grips with the external environment. What should be done in coming to grips with the external environment?

1. Be aware of the environment and of alternative futures.

2. Keep your options open - stay loose.

3. Evaluate business risks and evaluate alternatives.

4. Decisions should be made in such a way that there are multiple decision points which allow adjusting a course of action as the future unfolds.

MR. BAUER: What do these environmental changes mean in terms of the change in attitude of the client of the life insurance company?

MR. ROBERT M. ASTLEY: Consumerism is indeed a factor in our environment; I would like to give you, as a group of insurance company executives, five steps to follow in dealing with this unpleasant, timewasting phenomenon:

Step 1 - when consumer groups make a charge, deny everything!

Step 2 - if denying everything doesn't work, try to discredit whoever made the charge.

Step 3 - when consumers get no redress and seek legislative action, oppose everything.

Step 4 - if legislation is passed or regulations written, try to throw road blocks in the way of anything that is enacted.

Step 5 - do something about the problems.

Although it has taken some time, most companies are now committed to Step 5.

The five steps above were enunciated, partly tongue-in-cheek, by Esther Peterson, the first special assistant for consumer affairs at the White House, in an article entitled "Consumerism as a Retailer's Asset" (Harvard Business Review, May-June 1974). I urge you to read the article - it put a lot of my disjointed ideas into context.

To President Kennedy's Consumer Bill of Rights:

- the right to safety,
- the right to be informed,
- the right to choose,
- the right to be heard,

Mrs. Peterson and her colleagues at Giant Foods added a fifth point

- the right to redress.

How does the "right to safety" apply to the life insurance buyer? If you accept this right, you try to design out customer mistakes. The buyer of a whole life policy who lapses his policy shortly after issue made a mistake - he should have bought term insurance, if anything. Can we design out this mistake from our products and distribution system?

The "right to be informed" brings to mind cost disclosure, readable contracts,and informative advertising. The industry is considering these issues, but largely in a defensive way. How many companies have tried to tell the public about the significance of first year lapse rates in general, and about their own lapse rate? How many have designed terminal dividend scales with the first terminal dividend payable in year 20, thereby showing an attractive 20 year interest adjusted cost? The "right to redress" may demand ten-day free look privileges, high early cash values, and other similar measures.

Most of you will be aware of Senator Hart's "Consumer Insurance Information and Fairness Act" introduced to the Senate on July 8, 1975. Although many of Senator Hart's proposals are arguable, the main thrust of the legislation should not be.

Developments in Canada have proceeded along very similar lines, although little specific legislation has been introduced. Douglas Carruthers, a lawyer, was appointed in 1973 to study insurance problems generally, with specific regard to the public interest and the role of insurance intermediaries. The four Carruthers reports to the Ontario Superintendent of Insurance dealing with life and non-life problems were released in February of this year. On the life side, his main recommendations were:

- Voluminous disclosure of costs, including separation of the premiums ("contract charge" in his suggested terminology) into "estimated financial benefits" and the "insurer's markup". This is essentially the Belth Cost Comparison method.

- Creation of two classes of insurance intermediaries in place of the present agents: (i) sales representatives who will serve and be remunerated by only one insurer, and (ii) brokers who will serve only the buyers of insurance for a fee established between the broker and the buyer.

- A self-regulatory council with representatives from insurers, intermediaries and public interest representatives.

Carruthers was obviously greatly influenced by the Hart commission but, nevertheless,the similarity of their recommendations is most significant.

The Carruthers reports deserve more serious consideration than they have yet received. His recommendations on sales representatives and brokers seem eminently sensible and responsive to the needs of the marketplace. Those companies who do a good job of training and supervising their field forces will still be able to operate in that mode, but there would be no doubt about the status of the agent in the purchaser's eyes. He would be a salesman. On the other hand, a broker would be truly free to act in the client's interest, without doubt about commission motivations.

Starting July 1, 1976,accident and sickness insurers in Canada will be required to display in unmistakable fashion the anticipated payout in benefits to consumers (the loss ratio). J.O. Darwish, the Superintendent of Insurance for the Province of Alberta, has said "We see the loss-ratio payout display guidelines as a first step in our efforts to obtain fuller disclosure to the public in all insurance lines." Similar action on the life side may not be far away. This would rest comfortably with the Canadian

Institute of Actuaries (CIA) Committee on Cost Comparisons. This committee has tentatively endorsed the modified company retention method for Canada, and is now in process of doing some additional technical analysis on the method.

In summary, Mrs. Peterson's fifth step has to be the way of the future; we have to do something about problems as they exist. To try to simply maintain the status quo will not work in the environment we're seeing today.

MR. BAUER: We have an environment which is presenting us with problems; how do these problems impact on companies in their direct day-to-day operations?

MR. RICHARD S. ROBERTSON: I identify four general areas in which the environment is making a substantial impact on us as life insurance companies; first is the impact that changes in legislation or other governmental influences are having on us; second is the impact that inflation is having on our marketing organizations; third is the impact that inflation is having on our expense levels; and fourth is the impact that high interest rates are having on the products which we sell. Certain government programs are taking away certain of our insurance markets, particularly in the health insurance area. Disability income for all but high-income people is practically gone; medical expense reimbursement insurance may soon be gone; some lower income life insurance markets aren't there anymore. Whether this is healthy or not, it's something we must recognize in future marketing plans. While the government takes away, they have also given us some attractive new markets, particularly in pension sales and in various tax shelter products.

Inflation's effect on the marketing organization is a difficult thing to generalize. In the short term, high levels of inflation certainly appear to reduce the amount of disposable income; in the long term, insurance needs are proportional to increased living costs. Over the longer term, life insurance sales should be able to maintain their position in terms of real dollar values. The agent must strive to increase his sales in proportion to the increase in living costs and, in most cases, that means increasing the average sale; this is a very serious problem in the current inflationary environment.

The third area that I identified was the effect of inflation on operating expenses. Renewal expenses are not a major problem except when inflation is extreme; the increase in volume of insurance in force generally tends to stabilize renewal expense levels. This does not appear to be the case for acquisition expense levels and the increase in volume is just not adequate to keep up with the increase in the cost of selling. Also, the declining value of the dollar shrinks the value of our surplus and while, in terms of capacity, the problem for the life insurance industry is not nearly as serious as it is for the casualty insurance industry, it's something with which we have to reckon.

The effect of high interest rates has several ramifications. In pricing non-participating permanent insurance, companies are just not willing to guarantee current interest levels over the life of a policy; yet, the probability is that interest rates are going to continue at a high level indefinitely. This tends to make participating insurance a much better buy than permanent non-participating insurance and makes it very difficult for a non-participating policy to be competitive in today's environment.

Statutory limits on policy loan interest rates hamper our ability to take advantage of the high interest rates which are available. With that exception, the life insurance industry is one institution that is unusually well adapted to take advantage of high interest rates, particularly over the long term; we're one of the few institutions that can put money out long term and lock up high interest rates for relatively long periods. We have probably got the most skilled investors in long-term fixed dollar investments that exist anywhere in the economy; if we could clean up this policy loan interest rate, we'd be able to do an even greater job of servicing our policyholders in terms of allowing them to participate in these high levels of interest.

There are different forces that are acting to affect the balance between term and permanent insurance. With interest rates, particularly in the short term, being high, many policyholders are tending to prefer term insurance with the expectation that they could outperform us in investing those short-term dollars. Others recognize the value of the tax-free build-up of cash value life insurance and tend to emphasize the need for the permanent insurance. The typical poor performance of equity markets in times of high interest rates probably helps us more than it hurts us.

I'm going to take exception to the significance of consumerism on our business; I'm tired of the criticism which has been levied against our industry for our reaction to consumerist pressures. Our business has been oriented towards the needs of the customer for so many years that we tend to take it for granted. I am not going to say that there isn't a great deal of room for improvement. It is important to achieve that improvement and it is well to acknowledge that a great deal of the impetus for our consumerist attitude has come from the regulatory authorities. Conformity or reaction to meet the needs of those that have a consumerist interest is not going to have a substantial or fundamental change in the way we do business; it will just involve doing better the things that we do now.

MR. BAUER: Life insurance companies have traditionally maintained that the value of the agent's advice is significant and that he earns the commission he is paid. In the Canadian environment, and I don't think the U.S. environment is very far different, for a typical scale of heaped first year and renewal commissions,the ratio of the present value of total sales remuneration (agent and manager) to the present value of future premiums has gone from 10% or 11% (valued at 4%) to some 21% or 22% when revalued at a current rate such as,say, 12%. Does the public perceive the agent's service as being worth paying for to this extent?

MR. ASTLEY: I don't know whether,due to inflation,they have really changed their perceptions on that one particular point. I have to believe that they still do value an agent's service. The experience of the savings bank life insurance sold in Massachusetts and some of the other states indicates to me that,except for the top segment of the market that are shopping around, people just won't go out and buy insurance. An agent's services are worth what he's paid, but we should make sure that he is selling what really ought to be bought.

MRS. RAPPAPORT: There was a question on this point in one of the Monitoring the Attitudes of the Public (MAP) studies from the Institute of Life Insurance within the last five years; the public generally seemed to think that the agents were getting paid more than they were. Public attitudes also showed a strong preference for dealing with agents. However, when asked the question the other way around, 40% preferred certain kinds of alternatives to dealing with an agent. I think the 1974 MAP was the last time that question arose. There has been research done on whether or not people compare costs and the percentage of people comparing costs seems to be relatively consistent between life and auto; cost does not seem to be much of a factor in the purchase decision for either life or auto insurance.

MR. JAY M. JAFFE: People have started calling me, willing to pay my normal consulting fee, because they have not received what they consider unbiased and clear information from agents. Increasingly, consulting actuaries will be asked to provide an unbiased point of view. You go to a doctor for your annual physical checkup and you pay the doctor's bill regardless of whether he finds something wrong; people are going to have to start doing this about their life insurance and their estate planning. Actuaries, be they company actuaries or consultants, are going to be drawn more into this process.

MR. ROBERTSON: It may not be a fair comparison but typical casualty distribution costs are in the 30% to 40% range. Looking at the average income levels of agents, considering their education, training, and the skill and effort that goes into their job, those people are not overpaid.

MR. MAURICE H. LeVITA: I get sound and practical ideas for new life products from discussions with intelligent laymen; they tell me what they seek and intelligently assess suggested solutions. I should like to give you some of such ideas; a few are not new but seem to lack popularity.

A life annuity plus major medical for the amount of the gross annuity single premium might be the solution for a senior citizen who fears that money spent for an annuity might in the future be required for medical expenses. A life refund annuity with major medical would be a modification of this.

For some reason, the senior citizen is very much concerned with the possibility of "common carrier" death. He fully understands that, should he purchase a regular annuity, in the event of death the annuity instalments would cease; but he feels that in the case of a "common carrier" death (he will mention particularly death in a plane crash) the benefit should not cease but continue on a refund (cash or instalment) basis. The additional premium for such benefit would be relatively low.

A temporary life annuity could be issued with renewal privileges at the end of each term; the maximum renewal rates could be guaranteed.

Turning to insurance products, there is a need for a Last Survivor Insurance policy. If the assets of an estate are inherited by the surviving spouse, then the bulk of estate tax would be applied on the death of that spouse. A contract could provide life coverage on the second death for the anticipated amount of tax; thus preventing the estate from being substantially reduced.

A life contract could provide for a regular periodic escalation of the amount of coverage. One might assume a 6%, 7% , or even 8% annual escalation in the cost of living; an escalator life policy (uniform premium) might be issued for such annual escalated coverage for an initial period of 10 years, say. At the end of that period, the amount would be level for the rest of lifetime. The insured might be given the option of electing to have the escalation continue for another ten years, say (subject to an increase in the amount of uniform annual premium at that time).

Family Income Coverage might be provided on an escalating basis with escalation effective for the period of family income; the beneficiary would receive escalating monthly payments until the end of the family income period.

The Annual Premium Survivorship Annuity is not a new idea but evidently is not popular. This contract for the most part has been sold to benefit the elderly relative,or physically or mentally retarded child, with premiums payable during the joint survivorship of the assured and beneficiary. The contract would,presumably, not have a cash value (this would require evidence as to the state of health of the beneficiary). On voluntary termination either extended insurance or a reduced paid-up benefit would be granted. In husband and wife situations,there is the additional contingency of divorce. The contract could provide (with appropriate adjustment for any age difference) for appointment of another beneficiary; this, however, may not always be appropriate.

A Coverage Inflation Protector policy is one approach to the problem of an escalating rate in the cost of living. The amounts of coverage would depend on the total amount of life insurance the insured already has, regardless of plan or issue date. For example, if the total amount of insurance is $100,000 and the escalation rate selected is 7%, then, under the suggested contract, the coverage for Year 1 would be $7,000; the coverage for Year 2, $14,490; Year 3, $22,504. This could be continued to the 10th year, say, for the amount of $96,715 and made constant thereafter, the thinking being that the amount of escalation should not exceed the basic amount of insurance.

I also have some ideas on a Flexible Plan which I will present tomorrow.

MR. ROBERTSON: I was particularly intrigued by some of the ideas on annuities. There is, however, a limit to the degree of "customizing" that can economically be done.

MR. J. ROSS HANSON: Mr. LeVita entered the actuarial profession 50 years ago, in 1926; he was then a teacher of mathematics at Temple University. This is a long time to give to any profession and he has brought to our profession a high degree of creativity and a high presence of integrity. I am sure you will all join me in showing our appreciation to Mr. LeVita for a long contribution to the actuarial profession.

MR. THOMAS F. EASON: I first met Mr. LeVita four years ago when the Society's Special Committee on Valuation and Nonforfeiture Laws began its studies; he had written for the Conference of Actuaries in Public Practice Proceedings a series of papers on variable benefit insurance and gave us the insights of his writings. In a sense, he was the father of some of the ideas in our report.

In most states, 4% interest is now permitted for cash values; the report of the special committee, which so far seems to be receiving favorable comments from NAIC and has created a favorable first impression with the Actuarial Committee of the ALIA, puts forth the concept of establishing minimums at high interest rates as well as other changes that could dramatically affect cash values. Do you perceive changes in cash value patterns which might be a result of the continuing march towards interest adjusted cost disclosure methods? Mr. Astley, you referred in your remarks on consumerism to high early cash values. Are there some more thought processes there that you would like to share with us?

MR. ASTLEY: Mr. White* of the New Jersey Department of Insurance has talked about all of the changes that this would force in the insurance industry; the fact that you'd have to train your agents better and supervise them better in order to control the cost of lapses. I'm not a proponent of high early cash values on permanent policies; I think that's getting at the wrong problem. Suppose you said to the buyer of any insurance policy, be it permanent, term or whatever, "If you decide at any time within the first year that you have bought the wrong kind of policy, bring it back and we'll give you another one for the same face amount, whatever plan you choose. The premiums you paid on the original policy will simply be applied on the new one." The idea is that, if a man were sold full life coverage, didn't realize perhaps what he was getting, or it turned out his circumstances were not suitable for that, he could come back and say, "I really should have bought renewable term coverage - apply my premium and pay that coverage up for three or four years." This gives an alternative which may be more palatable than simply the in-or-out kind of thing on the high early cash values. I'd be interested in anyone's comments about the feasibility of that idea.

MR. GENE ECKSTUT: Government regulation tends to limit the choice of the insurance industry in providing products for different elements in the population. If it gets to the point of specifying what kind of policies can be sold and how they are to be distributed, this legislative response to pressure groups may be to the ultimate detriment of consumers as a whole.

MR. ASTLEY: I don't think more regulation is the answer. Canadian companies have demonstrated that by taking a lead in certain areas, they can forestall regulation. The Canadian Life Insurance Association and most of the Canadian companies have done a number of things to respond to consumer complaints, and they did them in a way that was consistent with their overall product line.

MR. WALLACE R. JOYCE: I have very grave doubts as to how useful some of the disclosure regulations, particularly the one that requires the insurance companies in Canada to put in an expected loss ratio in all their income disability policies, really are. What ratio will apply to all of the various types of disability income policies that a company may issue and still be meaningful to the policyholder? In one MAP study, there was a question with respect to the interest adjusted cost method as opposed to prior net cost illustrations. People favored the old method simply because they didn't understand the interest adjusted method; it may be a better method but if they don't understand it, it's absolutely valueless to the public.

MR. NAFTALI H. TEITELBAUM: With reference to Mr. Astley's comments on exchanging a policy within one year of issue, we already do this. The difficulty arises when the policyholder was missold in the first place and demands a refund; or, alternatively, competitive forces are such that there is no way of keeping the policyholder. The problem is one of companies stepping over one another to reduce rates in inflationary conditions. What with high commission and high early cash values, you reach the stage where a qualified actuary cannot understand how a company could issue such a product and still stay solvent.

MR. BAUER: Is it a correct observation of the mood of the meeting, that most of our problems do not really stem from the environment but are internally generated in reaction to pressures that are not really there?

* William A. White; TSA Vol. XXIV, D437

MR. TEITELBAUM: That is what I feel.

MR. ROBERTSON: I very much agree with those who say the problem is not the level of the cash value; it is with the quality of the sale. If life insurance is properly purchased, it's desirable for cash values to be low so that the policyholder who buys this policy for the long term can have the lowest net cost. What is significant is that most of the worst early persistency tends to come from the poorly qualified agent; the well-qualified agent sells the product that is suitable for the circumstances and generally has a very good first year lapse rate. I conclude that our problem does not involve too much first year rate of compensation; rather we are not compensating our agents sufficiently.

MR. GARY CORBETT: The problem comes not in exchanging a policy but in going back and applying the premium from issue. Unless you can count on recovering any advances made to agents, the only way you could possibly do it is to defer agent compensation in some way. If you're going to allow the original premium to be used to pay the term premium for five years, you have to pay the equivalent commission on that term policy; you're talking about not being able to pay the agent any more than, say, 20% and deferring all the rest of the compensation until you saw whether this exchange would occur.

I realize this is not the main subject for discussion today, but I feel concerned that what's been happening in Canada with the probable endorsement by the CIA of the Belth retention method is somewhat of an overreaction to consumerists rather than to customers. If the average customer wants any cost information, it is for his particular situation; he is not interested in averages. He has an idea of how long he wants to keep that policy; admittedly, his aims might change; he may be forced into a nonforfeiture situation; but I think the interest adjusted net cost is far superior for the customer's point of view. When he buys a car, he doesn't want to know how much goes to the manufacturer, how much goes to the wholesaler, or how much goes to the retailer; he just wants to know how much that car will cost him.

MR. BAUER: If I may just expand somewhat the earlier comments made by Mr. Astley; the Council of the CIA has created a committee to look into cost comparison methods and instructed the committee to recommend to Council whether they feel that any one method is superior to any other and to recommend whether or not Council, or the general membership of the Institute, ought to publicly approve a particular cost comparison method. The Committee's initial report simply stated that, in their view, the company retention method, despite its shortcomings, is superior to any of the others currently available. They further recommended that there be extensive work done, detail work, on whether the method is feasible in practice. Can it handle all the various ramifications of policies and do a fair job of comparing such as terminal dividends, reversionary bonuses, etc.? Work on this aspect is continuing. Personally, I agree with the Committee's initial conclusion that the company retention method is the best method for the simple reason that it is least subject to manipulation.

MR. W. PAUL McCROSSAN: One of the things that we have to face in an inflationary environment is that the incomes of our field force are not keeping pace with incomes of the working population in general. I think I'm not alone in Canada in increasing commission rates considerably on low commission plans, particularly bringing term commission rates up to ordinary life non-par commission rates. This enables the agent to make a better sale because his own personal finances are not as involved in the buyer's choice; it does, of course, make the product more expensive; but we feel that to provide the public with the type of service we want to give, we have to provide remuneration to our field force which will enable them to have a decent living.

Concerning high early cash values, we have a product with high early cash values, 80% of the premium in the first year for a Registered Annuity (a product peculiar to Canada, essentially a tax-free savings account). Purchasers were primarily motivated by tax savings and possibly by short-term savings; but there was a clearly longer term need to be fulfilled and we felt we had to come in with such a product. Despite a cash value of 80%, we pay a 30% commission. Obviously, we are taking a risk but we feel that this has to be done for that particular market. I suspect, although I'm not very well informed on the U.S. situation, that Individual Retirement Annuities might develop along a similar line in the United States.

MR. JAFFE: A lot of you may have relied on the title of this session and thought we were going to get to talk about some specific products. If we talk about products first and forget about the environment and how we can cope with it, we're putting the cart before the horse. Insurance is one of the few industries where the nature of the business is risk, yet we seem to shy away from this; we seem to push permanent coverage. Until recently, we have de-emphasized the pure risk coverages. Profit and risk somehow go hand in hand; there should be a positive correlation between the two. In my work, there is a much higher rate of return on surplus invested in term products than there has been from permanent products; this may be peculiar to my clients or our commission schedules, but it has been my observation.

In the development of new individual life products, actuaries have generally concerned themselves with the possibility of poor mortality experience. In the 1970s, the situation has changed and this question can be solved through various forms of reinsurance. Quality underwriting expertise is available to all companies and if random mortality fluctuations do occur, they create cash flow problems rather than influence the development of new products.

What are the major risks that should concern actuaries when pricing new individual life products? In my opinion, they are, in order of importance:

1. Acquisition costs,
2. Persistency,
3. Administrative costs, and
4. Mortality.

Many companies are now living off the profits of their old business. They would find it difficult to justify the sale of new insurance if this segment of their operations were judged by itself. The reason is largely high acquisition costs (both direct and indirect selling expenses).

Actuaries must feel particularly concerned if acquisition costs exceed the allowed levels because they are front-end costs. As such, they have the largest impact on the present value of profits arising from the sale of a new policy. As acquisition costs are known before persistency, mortality, or annual administrative costs, it is the area management can influence most rapidly in taking the action necessary to change the picture.

Persistency ranks second on my list of risks because allowable acquisition costs are predicated on achieving assumed levels of persistency. Poor persistency reduces allowable acquisition costs and good persistency makes it possible to acquire business at higher cost levels. One way of minimizing this risk for new, untested products is with coinsurance. In such transactions, the writing company transfers its risk to the reinsurer.

Inflation, insufficient volume, or poor management will influence future levels of administrative costs. However, the problem of rising administrative costs does not affect profits to the extent of the other considerations previously mentioned. Since it is a problem that does not creep up overnight, it can be addressed by management as part of a continuing program. In other words, if there is a problem, it does not come as a surprise and, therefore, does not involve the same degree of risk as acquisition costs and persistency.

And last but not least, there is a risk element in the mortality assumption. This assumption is of much greater importance in term insurance than permanent. For most companies, the question of unfavorable mortality experience is impossible to quantify because the volume on any one plan is insufficient to develop credible statistics. Further, mortality experience takes time to develop as illustrated by the difference between select and ultimate mortality.

Because actuaries are chiefly responsible for the profitability of new products and, as I believe, the major area of financial concern in developing new products is acquisition costs, it is necessary for actuaries to become more involved with the marketing process. The concept of marketing is much broader than the traditional "follow the leader" approach used by most insurance companies in developing new products.

Marketing involves planning. Selling, on the other hand, means reacting. Once one understands the concept of finding a market and then developing the needed products rather than the reverse, it is obvious that the most successful insurance companies (or financial institutions in the broad context) in the future will be the organizations that control markets as opposed to companies that are capable of developing new products on a timely basis.

The challenge to actuaries and other life insurance executives is to create efficient distribution systems or marketing programs. The traditional agency system is failing to meet this goal for many companies. However, while the present system is not totally healthy, it should not be scrapped but improved.

For the future, I envision "comprehensive marketing" as the solution. By this I mean a market-oriented approach, utilizing multiple distribution mechanisms such as agents, direct mail, telephone, etc.

In order to make the transition to a marketing-oriented operation, life insurance management must go through some painful introspection. Some of the questions it must answer include:

1. Should agent compensation be revised?
2. Should the company constrict its activities by eliminating marginally profitable lines of business?
3. Should more joint ventures (including reinsurance) be used to minimize risk on new endeavors?

4. Should home office overhead be reduced by using more outsiders (a variable cost) instead of employees (a fixed cost)?

Actuaries can and must be a part of this process. Our involvement will add a necessary dimension to the discussions as well as our profession.

MR. ROBERTSON: Do I understand that your recommendation is that we do everything possible to get our agents off food stamps and put the actuaries on?

MRS. RAPPAPORT: I have to second the comments about marketing. It is extremely important that we seek more analytical approaches to the problem; I don't think we've done that good a job of responding to the needs of consumers. Why do people have to have six life insurance policies, bought at six different times, and pay the premiums six different ways? Why can't we get our records together so that we know that the policyholder has six policies?

MR. EASON: Our sales force is excited about joint life products; this may be because we have joint term riders to go with the joint life policy. We have been asked to consider attaching single life riders to joint life policies; I hope it proves to be technically and legally possible for us to do so.

MR. JAFFE: There are two basic classes of joint life product; the mortgage joint life, and the business situation. Are there others?

MR. EASON: A college guarantee program. The additional cost for the insurance on the child is very nominal. On a typical joint life scale, it became necessary to reduce our joint life equal ages down below 15 so we could sell all combinations of children and young parents.

MR. BAUER: Has anyone tried new avenues of marketing; perhaps special markets, or other ways of improving the productivity of their agency force by, in effect, short-circuiting or at least enhancing the prospecting process?

Well, Jay, either nobody has tried, or nobody is talking.

MR. JAFFE: Where does the actuary fit into the spectrum of ideas and interrelationships? It may be that, as actuaries, we are not yet involved in this process; it is important for us to start getting involved in this process and working with management along these lines.

MR. BAUER: What type of products are companies considering in response to the challenges that were outlined earlier, both from the panel and from the floor?

MR. ASTLEY: Think of the insurance spectrum; term on one end, whole life, endowments, double endowments, ending up with low-load annuities at the other end. It is the gray area in the middle, the various endowments, that causes us a great deal of our problems; we've been trying to sell those as savings vehicles and they just aren't. We should stop believing that these products can offer the purchaser a competitive rate of return. Eliminate that gray area in the middle. At least one Canadian company has dropped all endowment forms from its rate book; I think you'll see quite a number of other companies follow suit. In Canada a lot of these endowment-type contracts have been registered for tax purposes and the industry has been subjected to a great deal of criticism over them. A man, motivated primarily by tax relief, puts in $2000, gets tax credit for $1800, and finds at the end of the first year he's got a cash value of $100. You could say he knew about that, but that isn't "designing out his own mistake". By taking out that gray area, separating insurance on one hand and savings on the other, you can start to do some really imaginative things. In Canada, in the past three or four years, we have seen quite a development of the flexible type of annuities Paul McCrossan was talking about. The typical one in Canada will pay a 3% repeating commission from a front-end load of the order of 7% or 8%; some of them have been guaranteeing interest rates on the order of 10%. We are starting to recover our share of the savings market by doing that kind of thing.

As regards equalizing commission rates on term and permanent, you might be interested in the experience of the Mutual Life Assurance Company of Canada. For four years, the company has offered a participating renewable term product with a rather unusual feature; the dividend is paid in advance. Instead of a high premium in the first year with an annual reduction at the end of the year, you get your annual reduction in advance. Because we pay commissions on the gross premium rather than on the premium less dividend, our commission rate has effectively been higher on the net outlay than on whole life. Last year, our percentage of term, by volume, was 69%. The world hasn't come to an end for us and our agents are a lot happier too because they are able to do a service for their clients.

Under traditional guaranteed insurability benefits, the basic premise is that insurance needs arise on every third policy anniversary. We all know that's wrong. What about designing a guaranteed insurability provision that could be exercised at any time within a three year period?

MR. McCROSSAN: If you can sell term at one end of the spectrum and a high cash value annuity at the other end, you can sell anything in between if you design it logically. We are in the business of risk taking and this involves risks other than mortality; you have to undertake the risk of poor persistency. If insurance companies immunize themselves against every possible contingency, are they serving the public to their utmost? They are missing a tremendous opportunity to serve the public by sitting back and taking this position.

MR. JAFFE: If you have a term insurance policy and an annuity policy, you can combine them any way you wish; the point may be to pare down your portfolio and present it as a streamlined block of business that you are issuing.

MR. McCROSSAN: Companies have limits, particularly on riders, which they rationalize as protecting the agent against himself, to insure that he is not selling too much term on a whole life base. We have to get rid of that type of thinking.

We have taken some reasonably interesting steps in guaranteed insurability, extending the coverage to $50,000 an option with options ranging from the mid-20s up to age 50. This involves certain risks but it is a product that has to be offered. We haven't quite got to the stage of open options although we do provide options, stork options for example, between option dates. We are also extending the options on individual disability; we're offering a medical insurability rider. We will guarantee the man's health although he still has to meet income and occupation requirements to justify the coverage. We are also working on the life account, where you can add riders or new policies as attained age riders.

MR. JAFFE: Have you considered offering the guaranteed insurability benefit without an underlying policy?

MR. McCROSSAN: No, but we add it at attained age providing the man pays for the medical; in other words, we collect expenses on the front end.

MR. BAUER: The trouble is not so much that we couldn't reasonably design a policy to offer it, but that, much like travel insurance, the true insurance content would be so low that the relative cost of the policy would be very high.

MR. JAFFE: It should be the public that judges whether they're willing to spend $100 for something that is worth $40 or $30 versus $500 for something that doesn't have any value to them. Young people would find this to be a desirable product and I would like to see somebody come out with it.

MR. JOYCE: There are two aspects to the small premium benefit; one is the relative cost of the benefit in relation to the cost of putting it on the books; the other is the cost to the agent. Can the agent afford to make that kind of a sale by itself?

MR. JAFFE: Part of the answer lies in just turning your question around. Can the agent not afford, in the young market, to be willing to go out there and pick up the $100 premium? It gives you a satisfied client and I would be trying to build a practice, a clientele, especially if I were a young agent. This comes back to marketing; you're marketing your services, rather than selling a specific product.

MR. BAUER: The last formal part of our presentation deals with the responsibility of the actuary in the changing environment and what his contribution to the overall effort must be.

MRS. RAPPAPORT: This morning Mr. Trowbridge defined this responsibility in four aspects: first, recognize change and trends as they develop; second, assess whether the change is permanent or a swing of the pendulum; third, analyze the impact of change on the public being served; and, fourth, aid the decision-making process in intelligent response to change. Relating these four principles to the work an actuary does, the Guides to Professional Conduct quite explicitly spell out some responsibilities; these I have cited earlier.

In one of the four areas of responsibility as described in my discussion note, the area of product design, we have experienced difficulties with variable annuities because, despite inflation, equity-linked benefits have frequently gone down rather than up. We have not had wide-spread acceptance of "cost-of-living" life insurance products. The major problems in developing such benefits would be unpredictable cost, developing a method of paying for the benefits, and, above all, the marketing question. Agents seem afraid to sell cost-of-living benefits because they are afraid of preempting future sales.

The development of products to provide for security under varying economic conditions will continue to be a major problem facing actuaries in the future.

Appendix - Details Relative to Demographic Change

(The source of all of the data in the following tables is the Conference Board. The original sources are the United States Government, Departments of Commerce, Labor, and Health, Education & Welfare.)

TABLE 1
Population by Broad Age Groups
Millions of Persons

		Age Group				
	Total	Under 5	5-17	18-39	40-64	65 & Over
1940	132.1	10.6	29.8	47.7	35.1	9.0
1950	152.3	16.4	30.9	51.5	41.1	12.4
1960	180.7	20.3	44.2	51.6	47.9	16.7
1970	204.9	17.2	52.5	61.1	54.0	20.1
1974	211.9	16.3	51.0	68.1	54.7	21.8
Proj.						
1975	213.4	15.9	50.4	70.1	54.7	22.3
1980	222.8	17.3	46.0	79.6	55.4	24.5
1985	234.1	19.8	44.8	84.9	57.9	26.7
1990	245.1	20.1	47.6	85.5	63.0	28.9
1995	254.5	19.2	52.1	82.6	70.3	30.3

Source: 1975/76 Guide to Consumer Markets, page 15 (series II Proj. Department of Commerce)

TABLE 2
Population-Selected Age Groups
As a Percent of Total

	Under 18	65 & Over	% of Population Under 18 Or 65 and Over
1940	30.5%	6.8%	37.3%
1950	31.0	8.1	39.1
1960	35.7	9.2	44.9
1970	34.0	9.8	43.8
1974	31.7	10.3	42.0
Proj.			
1975	31.0	10.5	41.5
1980	28.4	11.0	39.4
1985	27.6	11.4	39.0
1990	27.6	11.8	39.4
1995	28.0	11.9	39.9

Source: 1975/76 Guide to Consumer Markets, Page 15 (series II Proj. Department of Commerce)
(Those under age 18 and at ages 65 and over can be considered to be normally out of the labor force. Increases in aged population and decreases in the young tend to offset each other.)

TABLE 3
Key Demographic Indicators

	Median Age at Marriage		Marriage	Fertility	Divorce Rate	
	Male	Female	Rate*	Rate**	Per 1000 Population	Per 1000 Married Women
1940	24.3	21.5	82.8	79.9		
1950	22.8	20.3	90.2	106.2	2.6	10.3
1960	22.8	20.3	73.5	118.0	2.2	9.2
1965	22.8	20.6	75.0	96.6	2.5	10.6
1970	23.2	20.8	76.5	87.9	3.5	14.9
1971	23.1	20.9	76.2	81.8		
1972	23.3	20.9	77.9	73.4		
1973	23.2	21.0	NA	69.2		
1974	23.1	21.1	NA	68.4 p	4.6 p	19.3 p

p - preliminary
*Rate per 1000 unmarried females age 15 and over.
**Rate per 1000 females age 15-44.

TABLE 4
Population Data

	U.S. Population (Millions)	Annual Growth Rate	Males Per 100 Females	Median Age
1960	180.7	1.60%	97.1	29.5
1965	194.3	1.26		
1970	204.9	1.09	94.8	28.1
1971	207.0	1.06		
1972	208.8	.87		
1973	210.4	.75		
1974	211.9	.72	95.4	28.6
1980 Proj.*	222.8	.84	94.9	29.9
1985	234.1	.91	94.7	31.1
1990	245.1	.92	94.6	32.3

*Series II Proj. From U.S. Department of Commerce. Based on Fertility Rate of 2.1.

TABLE 5
Labor Force Participation Rates by Age and Sex

	1965		1974		1985 Proj.	
Ages	Male	Female	Male	Female	Male	Female
16-17	44.1%	27.5%	50.3%	40.1%	45.6%	36.7%
18-19	68.3	48.6	73.5	58.1	65.1	55.7
20-24	86.2	49.7	86.1	63.0	82.4	64.9
25-34	96.0	38.5	94.7	52.2	94.4	50.9
35-44	96.2	45.9	95.1	54.5	94.9	54.4
45-54	94.3	50.5	91.2	54.3	91.7	57.4
55-64	83.2	40.6	76.3	40.4	78.1	45.4
65 & Over	26.9	9.5	21.5	7.8	20.0	8.5
TOTAL	80.1	38.8	78.1	45.1	78.3	45.6

Projections based on Series E (Low Series); Dept. of Labor

TABLE 6

Married Women in the Labor Force

	Total Married Women	Presence of Children Under 18 Years: None Present	6-17 Years	Any Under 6 Years
	Participation Rates			
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
1974	43.0	43.0	51.2	34.4

Participation Rates by Age

	Under 20	20-24	25-34	35-44	45-64	65 & Over	Total All Ages
1960	25.3%	30.0%	27.7%	36.2%	34.2%	5.9%	30.5%
1965	27.0	35.6	32.1	40.6	39.0	7.6	34.7
1970	36.0	47.4	39.3	47.2	44.1	7.9	40.8
1974	44.3	54.0	46.1	50.1	43.5	6.7	43.0

TABLE 7

1974 Median Family Income by Selected Characteristics

Total Families	$12,051
Age of Head	
Under 25	$8,041
25-34	$12,206
35-44	$14,307
45-54	$15,223
55-64	$12,781
65 & Over	$6,426
Type of Family	
Husband-Wife	
Wife working	$15,237
Wife not working	$11,418
Other male head	$10,742
Female head	$5,797

Source: 1975/76 Guide to Consumer Markets, page 126, Department of Commerce.