The Actuary

The Newsletter of the Society of Actuaries

VOLUME 12, No. 6 JUNE, 1978

BOOK REVIEW

by James L. Clare

J. E. Pesando and S. A. Rea, Jr. *Public and Private Pensions in Canada: An Economic Analysis,* Toronto: for the Ontario Economic Council by the University of Toronto Press, 1977.

For a successful resolution of the current Canadian Pension Debate, input will be needed from many quarters, and many bases will need to be touched. One of the major aspects currently debated is the relationship between (1) the net rate of investment return on pension funds, and (2) the inflation rate. The authors, with skill, clarity, and thoroughness, observe: "To sum up, the empirical results support the tentative conclusion that, *ceteris paribus,* a 1 per cent change in price expectations will produce a corresponding 1 per cent change in nominal interest rates." (The authors, of course, are talking only about moderate rates of inflation—*not* about runaway inflation. Runaway inflation would be extremely hazardous, and almost certainly disastrous, for all pension plans, whether funded or unfunded, and whether public or private).

The authors also realize that there may be time lags, with inflation accelerating first, and real net rates of investment return only making up lost ground afterwards. Thus, they note that ". . . the sharp increase in the experience deficiencies of final earnings plans and (renegotiated) flat benefit plans in recent years is quite predictable. Equally important . . . this trend would be *reversed* if inflation were to slow in years ahead", (emphasis added).

The pension funding problem caused by such timing differences between inflation and investment returns is tentatively tackled by the authors. They offer the exploratory suggestion that, perhaps, "index bonds" would provide a solution.

(Continued on page 6)

1978 SOCIAL SECURITY REPORTS

The Trust Funds

by Francisco R. Bayo

On May 16th, the Social Security Boards of Trustees sent to the Congress the three annual reports (OASDI, HI, and SMI). These reports present cost projections similar to those provided to the Congress last year at the time of enactment of the 1977 Amendments.

The SMI program, which generally covers physicians fees for the aged and the disabled, is in excellent financial condition. Funds at year end were enough to cover incurred expenses plus the required contingency reserve. The premiums promulgated last December are expected to be enough to cover the costs projected for the applicable 12-month period and to build up the reserve.

The HI program, which generally covers physicians fees for the aged and the disabled, is projected to have funds that will remain about level as percent of annual expenditures until 1985. Thereafter, the funds are projected to decline until exhausted in 1990. Over the long-range 25-year period, the program is estimated to have a deficit of 1.12 percent of taxable payroll (based on average costs of 3.86 and average taxes of 2.74).

The OASDI system, which generally covers monthly cash benefits to retired or disabled workers and to their dependents or survivors, is projected to be well financed until the early years of the next century. Although the funds are expected to decline during the next few years due to inadequate taxes, they are projected to increase after 1980 attaining levels of more than twice the annual expenditures by the turn of the century. Thereafter, the funds are projected to decrease until exhausted before the year

(Continued on page 8)

JAHCOGS TO COPAFS

by Robert J. Johansen

This is the second of two articles on the Committee of Professional Associations on Federal Statistics (COPAFS) and the report which gave rise to it. The first article appeared in the April 1978 issue of *The Actuary.* The Joint Ad Hoc Committee on Government Statistics (JAHCOGS), of which the Society was a member in 1977, was convened in 1975 in the belief that (i) the professions which used federal statistics were not responding to the many developments in federal statistics that affected their interests and (ii) the federal statistics system was failing to measure up to standards that professional statisticians felt were necessary and feasible.

While the interests of the constituent associations are varied, all have a common interest in the structure and conduct of the federal statistical systems that produce the statistics used by members of the associations and by government and the public at large. Consequently, the Committee addressed itself to problems in the conduct of the federal statistical system itself rather than the contents of the output of the system. In its final report published in April 1978, JAHCOGS compiled a number of failings in the federal statistical system and made several specific recommendations. The findings and recommendations are summarized briefly as follows.

(1) The report called for expansion of the number of statistical advisory committees to government agencies together with improvement in the effective use of such committees. The present Administration has abolished several of these committees and the Committee noted that, in the past, a number of such committees had not been effectively used by the agencies.

(Continued on page 6)

The Actuary

Editor . . . . . . ANDREW C. WEBSTER
Associate Editors . . COLIN E. JACK, FREDERIC SELTZER, JONATHAN L. WOOLEY

Correspondence should be addressed:
The Actuary
Mail Drop 13-2, 1740 Broadway
New York, N. Y. 10019
Tel: (212) 586-4000

Published monthly (except July and August) by the SOCIETY OF ACTUARIES. 208 S. LaSalle St., Chicago, Illinois, 60604, William A. Halvorson, President, Myles M. Gray, Secretary, and L. Blake Fewster, Treasurer.

The Society is not responsible for statements made or opinions expressed in the articles, criticisms, and discussions in this publication.

"COFIRENTES +"

"A violet by a mossy stone,
Half-hidden from the eye;
Fair as a star, when only one
Is shining in the sky."

It may seem peculiar to apply Wordsworth's lines "To Lucy" to anything so prosaic as the report of a committee established by a government to study the financial security of the elderly, but we hope to show that they are not inappropriate.

In February 1976 the Government of Quebec set up a committee to evaluate the respective roles of public and private pension plans in providing financial security for the elderly. A consulting actuary, Mr. A. Hervé Hébert, was named chairman of the Committee. It adopted the name "Cofirentes +" — "co" is for "comité" (French for committee), "fi" for financement" (French for financing) and "rentes" is French for annuities or pensions. The plus sign was apparently added to evoke thoughts of future development.

Unfortunately the report is "half-hidden from the eyes" of many North American actuaries by being published only in French. This is regrettable as it is a thorough and scholarly review. It is also the only complete report on the subject of pensions shining in the Canadian firmament at the present time.

Another thorough study is being made in Ontario by the Haley Commission, which is now hearing witnesses, among them a number of actuaries.

For American readers, it may be helpful to mention that old age security in Canada stands, like a milk-stool, on three legs. The first is a universal pension paid by the federal government to nearly all Canadians over age 65; payments are currently approximately $150. per month but this may be supplemented on a means test basis to as much as $260. This plan is financed by public funds with no tax collected specifically for it.

The second leg is the Canada Pension Plan, or in Quebec, the Quebec Pension Plan; the two plans are virtually identical in most respects. They provide a pension at 65 of 25% of so-called adjusted earnings. At the present time earnings above $10,400 are excluded and the maximum pension is approximately $190. per month. This plan is financed by a tax on employers, employees and self-employed, of 3.6% of earnings between $1,000 and $10,400. As in the case of United States Social Security, present contributions will not be sufficient to maintain the benefits.

The third leg is employer and individual pension plans. There are, as also in the United States, arguments over what proportion of workers are covered by employer-sponsored plans; there is general agreement on the numerator of the fraction, but different writers use different denominators. Large numbers of Canadians subscribe to individual "registered plans"; many of them are also members of plans sponsored by their employers.

The "Cofirentes +" committee put forward several new and stimulating thoughts which should be of interest to all actuaries in the pension field. It could be rewarding to sit down with the report and a French dictionary and find out what they have to say.

Many of the proposals of the Committee are controversial and its members may find they will resemble Lucy who was a "maid whom there were none to praise/ And very few to love."

Lucy is, of course, in the grave, and was, even in Wordsworth's time. Let us hope the Report will not, like Lucy, and like the work of so many committees, be buried.

C.E.J.

LETTERS

Par *vs* Non-Par

Sir:

The recent correspondence in *The Actuary* concerning non-par versus par insurance prompts me to express my views on this important subject.

I think any company with sufficient capital, surplus, or participating business in force should be able to sell non-participating insurance but I do question who should be buying this type of business. I certainly wouldn't although I'm not a good example as I wouldn't buy par permanent insurance either. Perhaps we should put a mandatory message on all non-participating policies: "The Insurance Commissioner has determined that this policy could be harmful to your financial health." The concepts of providing good value to the customer and good solvency for the actuary are not always compatible in these days of high inflation. Getting rid of guaranteed cash values would help considerably in the pricing but th could be the subject of another whole letter.

I agree with Robin Leckie's suggestion (November 1977, *The Actuary*) that large mutual companies with a strong backing of participating business are in as good a position as any to offer non-participating business at reasonable rates (although New York Mutual's would be out of luck) but I don't believe they should be the ones to offer it. I see no conceptual difference between a mutual company investing in common stocks and investing in non-participating business. Both are risky investments with the possibility of substantial profits to benefit the participating policyholders' dividends or vice-versa. The proportion of non-participating business which the mutual company has in force should perhaps be limited by prudent management and this leads to the subject of 'gearing' which I learned about in my actuarial studies. A highly geared company with a high proportion of non-par would also be a high risk company.

All companies are in the risk-taki business and any as mentioned above company with sufficient capital, surplus or participating business should be able to offer non-participating policies. The question still remains as to whether we

(Continued on page 3)

would offer them at all. My personal opinion is that they should be offered in certain specialized situations where they are appropriate but otherwise they should only be available on a defensive basis, perhaps with low commissions, warning messages, etc., and they would then be bought only by the real pessimists.

R. A. Haslegrave

* * * *

Second To Die

Sir:

I read Mr. William Frasier's article on last survivor values with particular interest because we introduced a last survivor insurance policy utilizing his Method II to develop the values in January of this year. However, we developed the special equivalent equal age death rates,

$q_{\overline{\overline{xx}}}$ in a little different way that may prove to be a little simpler; namely:

$$1)\ {}_t p_{\overline{x:x}} = 2\cdot {}_t p_x - ({}_t p_x)^2$$

for all t,

$$2)\ p_{\overline{\overline{x+t:x+t}}} = \frac{{}_{t+1} p_{\overline{x:x}}}{{}_t p_{\overline{x:x}}}, \text{ and}$$

$$3)\ q_{\overline{\overline{x+t:x+t}}} = 1 - p_{\overline{\overline{x+t:x+t}}}$$

for all t.

Dennis Carlson

* * * *

Sir:

The article on *Second to Die Joint Life* policies in Volume 12, No. 3, implies that the chances of both insureds dying in the same year can be calculated by multiplying together two rates of mortality taken from a standard mortality table. While this would be theoretically correct if the chances of death of the two lives were totally independent, it certainly has no applicability in the real world.

Joint life insureds, be they family members or business associates, are frequently exposed to the same hazards. They often travel together by automobile or plane. They are frequently in the same general location where they are exposed to natural disasters such as fires and explosions. Because of this, the chance of both insureds dying in the same year is many times higher than it would be for totally independent lives.

While it can be argued that this extra exposure is level by age and duration and therefore does not affect either reserves or cash values, this extra exposure is generally the major component of the risk premium for *Second to Die Joint Life* policies.

Henry Kunkemueller

* * * *

Sir:

William Frasier argued in the March, 1978 *"Actuary"* for considering the "Second to Die Joint Life" as a single entity subject to a single decrement table. He proved that *expected* reserve and cash value level is the same as or slightly greater than under the standard double decrement approach. Certainly, there are administrative advantages to his approach and I agree with the six that he suggested.

The real question, in my opinion, is loss recognition. When do we recognize that a "status" has changed? The answer to this question should logically be based on philosophical theories and historical precedents — perhaps regulators prefer the latter. Mr. Frasier shows us the advantages of not recognizing the status change due to the death of the first life in calculating reserves. There are other instances of this type of item in life insurance valuation, i.e., no policy reserve increase is recognized when an insured is permanently disabled, but without waiver of premium coverage. If the policy reserve were recomputed in this case, using the 1952 disability study for mortality and recovery, a much higher liability would be established. Even when the insured does have waiver of premium, the reserve provided for in Exhibit 8, Sections A & D, does not generally seem adequate compared with the provision that would be made in Section D alone for group life waiver of premium disability claims. On the other hand, mortality should generally be recognized when it occurs. Few actuaries would suggest in GAAP accounting to set up a "premature death asset" to defer mortality different from expected.

There is even a case to have more loss recognition at the first death than the standard double decrement table suggests! It is well known that widowers/widows have higher attained age mortality than married people. If our double decrement table took this effect into account instead of assuming that the deaths were statistically independent, the loss recognition would be even greater at the first death, i.e., the policy reserve would show a greater increase upon the change of status.

In short, while there are strong administrative motivations for Mr. Frasier's proposal, the historic, theoretical and policyholder equity criteria weigh heavily against his new proposed valuation and cash value methods.

Harry Ploss

* * * *

Membership Requirements

Sir:

Concerning membership requirements of the Academy, perhaps the initials MAAA and AAAA should be made nonavailable to new entrants, who will have ASA, FSA, ACAS, FCAS or EA to fall back on. Reference to membership would similarly be eliminated except in situations where a) laws or regulations require, or b) a listing of memberships of the individual is specifically requested. Present members would be given a period of time to use up stationery now displaying the initials of membership. As for those who entered years ago lacking membership initials in any actuarial body, they are so rare that an exemption would have no practical significance.

Membership in the Academy should not reward individuals with a mark of prestige beyond that which is already inherent in the degree of attainment which makes them eligible to join.

Ralph E. Edwards

* * * *

Sir:

I have been employed for many years by a large insurance company, but since 1971 my assignment has been to provide consulting actuarial services to group pension clients. As a result, I see the professional reorganization problem both as an insurance company actuary and as a consulting actuary. As a result of serving on the Academy's Committee on Services to Enrolled Actuaries, I see the problems that are met by all kinds of pension actuaries.

(*Continued on page 4*)

Letters

(Continued from page 3)

Reorganization of the profession is not a new problem. We have faced it many times, generally because our organizations are exclusive. For some reason, actuarial organizations tend to get more and more exclusive as they get older. The Actuarial Society of America was so exclusive (and dominated by the eastern mutuals) that the American Institute of Actuaries was formed in 1909 to meet the needs of actuaries for smaller companies. When they merged into the Society of Actuaries in 1949, the expanding consulting field found no place in an insurance-dominated organization, and, thus, CAPP was born. Surely one of the reasons ASPA began was that neither CAPP nor SOA was helping solve the actuarial problems of the kinds of plans for which ASPA members are responsible.

The Academy was designed to be an inclusive organization, i.e., it would include all persons who had a valid claim to actuarial expertise. By tightening its entrance requirements, it, too, started becoming exclusive. It became more inclusive in 1976 by bringing in enrolled actuaries as Affiliates, but one of the reasons for doing this was to avoid the formation of yet another exclusive organization of enrolled actuaries.

In my view, the profession needs both an inclusive organization and one or more exclusive organizations. The inclusive organization, the Academy. would have one class of membership and would include everyone who has a reasonably valid claim to any area of actuarial expertise. It would include at least all enrolled actuaries and all members (at the lowest level by examination) of the other actuarial organizations. It would be so inclusive that anyone who claimed to be an actuary and could not get in would be laughed at.

The exclusive groups—SOA, CAPP, FAA, CAS, etc.—could continue to have standards as high as they like. (I *like* being an FSA because it means my training has been rigorous). To avoid difficult and time-consuming coordination problems, though, it would be nice if SOA would increase its membership 6% by granting Fellowship or Associateship, as appropriate, to members of CAPP and FAA. The Society should remember, though, that it is viewed by many consulting actuaries as being dominated by the insurance industry and hence not very responsive to their needs.

What would be the functions of the inclusive and exclusive organizations? The exclusive ones would continue to maintain their excellent examination and training structures so that new entrants into the profession could look on fellowship in any one of them as the highest achievement in terms of professional training. We must remember, however, that passing exams does not endow us with experience or wisdom.

The inclusive organization, on the other hand, would speak for all actuaries to various levels of government and the public. It would try to meet those needs of its members which are not met by the exclusive organizations. This might include, for example, basic courses designed to help non-actuaries pass the enrolled actuary exams or advanced courses for the continuing education of FSA's or running meetings for enrolled actuaries. The Academy does many things already, as readers of its *Newsletter* and *Enrolled Actuaries Report* know.

To summarize, our problem today stems from the tendency of all actuarial organizations to be *exclusive*. As actuaries we must realize that we need an *inclusive* one without giving up our exclusive ones and that the different organizations have different purposes.

H. J. Brownlee

* * * *

Sir:

The April issue of *The Actuary* refers to actuaries by "education" and actuaries by "practice". Actually what is meant is: those who have taken the examinations of the Society and those who have not. Taking the examinations is not equivalent to "education." It simply means that the person is a successful examinee. Some people can take examinations and some cannot; the education of each is not correlated to the results—and there is ample proof of that in the educational field. The problem goes deeper, however.

The Society's examination does not provide supervised training comparable to that of a medical student in our university system. All it provides is a reading list which serves as the basis for subjecting an aspirant actuary to a lo obstacle course called "examinations" designed like Maxwell's Demon to keep people out rather than find out what they know. The medical student is trained in his younger years and subjected to a short span of examinations to find out what he knows—his chances of passing, if he has worked seriously, are high. The aspirant actuary is given the reading list usually after he has finished his Bachelor's degree and has to spend his early middle-age being a "student" for the Society. Furthermore, his chances of passing with each examination do not "mature." He can be as much in trouble passing his last examination as he was with his first one. In fact, I know a very competent actuary who in spite of becoming chief actuary of his company never was able to pass his last examination. Such a system is patently absurd.

I suggest reading Norman Bennett's column "Maunderings" in the Casualty Society's April issue of the Actuarial Review. He caught a mood at a meeting of these "students" which indicates tl a deep seated grievance is brewi.. against this late in life, long drawn out apprenticeship system. Norman confirms the fact that the Society's examination system was borrowed from the British. However, the British designed it for early years in life—high school starting age through the completion of college. The Society has applied it instead to completion of college into middle age—a significant distortion. It would not be surprising to see "students" at some future date retaining legal counsel and challenging the Society, together with those who manage the examination system, in the courts, charging that this long apprenticeship in later life violates civil rights.

Finally, there is no reason for the Enrolled Actuaries to need "acceptance" by the Society. They are the only actuaries with a formal governmental qualification. All they have to do is set up their own Institute of Enrolled Actuaries and be masters in their own house, instead of sitting below the salt in soı one else's house. After all, the FSAs do not "own" the profession.

John S. Ripandelli

* * * *

(Continued on page 5)

Sir:

While considering the proposed fragmentation of the profession into specialties, it occurred to me that, for every person classified as competent within a special line, many others are being classified as incompetent in that line. In the deliberations of the actuarial bodies I wonder if this byproduct is being taken into account, and whether we are actually doing greater damage to our profession than all its detractors and those wishing to usurp its functions. We are all so busy excluding other actuaries from what we feel our special areas of expertise, that there are not enough actuaries available to get the job done. We may be working hard trying to get our members excluded from practicing their profession.

There seems to be a huge repressed demand for someone to sign actuarial certifications and as long as the public demand is there, someone, no matter how inadequate, will be found to sign the actuarial statements—regardless of our opinion as to their abilities. Since we have ruled each other out as being unqualified for the job, the search for signers will turn elsewhere. I doubt if the accountants will rule themselves unqualified; they will probably be quite happy that we have voluntarily eliminated ourselves. If there are still not enough bodies to go around, qualifications will be lowered so that anyone (not an actuary) can say he is qualified and will be recognized as such. Maybe a high school diploma will be enough.

Limiting each other seems to be self-destructive. It seems that we learned nothing from the pension experience. and that we are now on course to repeat the same dreary process with casualty business.

The situation in the Society of Actuaries is even more deplorable. In part it may have been inevitable; but at least the Society could insist that every Member is sufficiently qualified in the basics to handle any actuarial assignment, leaving it to his judgment whether he will go out on his own. The basic knowledge should be considered to be there by virtue of passing the examinations. There are enough civil, criminal, and professional punishments to control the unwary. For example, it seems ridiculous to work for many months on the pension examinations, and be told that one cannot work in that field. As far as I know, other professions do not restrict their members. A CPA can sign a report for any type of business though it seems obvious that he cannot be expert in all businesses. It seems that the least the Society can do is to insist that its examinations are recognized, and keeping them such that they can be recognized.

The Casualty Society seems to be headed towards repeating the Society's experience. Restriction of recognition to a sub-set of actuaries will force the search for casualty actuaries elsewhere, and the Society Members will be overwhelmed by the number of self proclaimed experts who will be given Federal and possibly State recognition. Better to share their expertise with actuaries, Members of the Academy, than become extinct.

It seems that the actuarial organizations feel that their members cannot decide for themselves whether they can execute the responsibilities of their duties, but must have that decision made for them. It is rather insulting, when you stop to consider the matter.

It would seem that the time is here to reconsider our situation and attitudes. Rather than competition by exclusion, we need to hold together, to treat each other with respect and decency and recognize that we are all sincere, responsible, and dedicated to our profession. There may be evidence of special expertise by belonging to the Society of Actuaries, the Casualty Society or the Pension Society, but as Members of the Academy we are all qualified actuaries available to the public and Government.

Maybe, by pulling together we can do our greatest service to our profession and to the public to whom we are first and last responsible.

John T. Gilchrist

* * * *

ERISA Fallout

Sir:

Guy Shannon's "After ERISA, What?" article displays once again his flair and insight as a consulting actuary. I will try to act as a commentator rather than a prophet in connecting two points raised in the article—litigation and repentance at leisure.

One cannot predict the extent to which hasty ERISA compliance may have planted the slow-germinating seeds of future litigation. Consider the recently reported $5 million *Ward Foods* lawsuit involving a major actuarial firm, based in part on ERISA advice given during the final week before enactment, nearly four years ago. Regardless of the merits or outcome of this case, who could have foreseen all the related developments that occurred subsequently, including the Daniel and Nachman cases? Recently a physician stated that 50% of current medical knowledge will prove to be wrong or obsolete. Has the state of the art of ERISA compliance advice during the past four years been any less primitive than the healing arts?

By now, of course, ERISA plan amendments and actuarial filings are in the public domain. Perhaps pension actuaries should combine their efforts and learn from such information, in somewhat the way that insurance company actuaries have traditionally learned from government filings and intercompany surveys. Are not the economics of professional liability insurance such that the rain falls alike on the prudent and the negligent? How much professional liability cost can pension plan sponsors willingly absorb? What are the implications for the pension market on the far side of Mount ERISA?

Mr. Shannon's article suggests a few areas in which hasty ERISA compliance may require clean-up amendments. Based on the Law of Probable Dispersal, which says that whatever hits the fan will not be evenly distributed, one can trust to luck, or can start doing some cleaning up.

Richard G. Schreitmueller

* * * *

Actuarial Meetings

Sept. 27, Actuarial Club of Pacific States

Oct. 3, Actuaries Club of Indiana

Oct. 12, Boston Actuaries' Club

Book Review

(Continued from page 1)

Perhaps the authors could, in the future, also consider further alternatives, e.g. shortening the term of the investments? For example, a five-year mortgage has more responsiveness to inflation than a fifteen-year bond. Perhaps sufficient responsiveness could be achieved simply by shortening investment terms?

The authors provide some worthy initial discussion of some other questions on the agenda of the Canadian Pension Debate, e.g. "portability" of pension benefits. Possibly, in later work they could also take into account the economic implications of (1) early retirement trends, and (2) retirement incomes which, on a net basis are *in excess* of net incomes while working?

Concerning the Canada Pension Plan, the authors have healthy hunches and instincts, but they have yet to follow them up. For example, they state that "the CPP may have had some redistributional effects associated with the start of the program." In fact, currently, only about 10% of any CPP retirement pension now being received has been "paid for" by the CPP contributions made by the recipient and made by his employer on his behalf. The *remaining* 90% is a redistributional *subsidy*. Thus, the CPP gives more *dollars* of subsidy per month to higher-income retired Canadians than it gives to lower-income retired Canadians. This is "upside-down welfare." Perhaps the authors could scratch a little deeper?

Owing to such incompleteness, the book should be read with care—but it certainly should be read by every serious pension debater. It is also to be hoped that the authors will bring still more pension aspects under the scrutiny of their "Economic Analysis," in future books—and soon.

Editor's note: We are indebted to Ms. Catherine Frost, Editor, Canadian Tax Journal, for permission to reprint this article. □

JAHCOGS

(Continued from page 1)

(2) The Committee found that in many cases too many dollars were spent in collecting data; but the required methodological and substantive analyses were often neglected, lessening the value of the data. The Committee also found a need for each agency producing statistics (whether or not this was its primary mission) to have or to have access to professional staff and technical guidance.

(3) In order to encourage wider dissemination and use of data collected at considerable expense, the Committee made a number of recommendations with respect to lowering the cost of printed matter and providing facility for electronic data sources.

(4) Contracting out should be freely permitted, particularly where the agency receives access to expertise or data not readily available otherwise or when a privately developed study is more likely to receive public acceptance. The Committee recognized, however, that lack of qualified agency staff has sometimes led to less than optimum results from contractors in the past and it recommended a comprehensive review of existing policies and procedures for contracting for research and statistical services, including improved means of evaluating proposals and results.

(5) While there has been a tremendous expansion in the number and scope of government requests for information, there has not been a corresponding increase in the forms clearance staff since 1942. The Committee urged the President's Task Force on Reorganization of the Statistical System to give special attention to this area to assure qualified individuals for forms review, reductions in delays and especially the review of individual projects as parts of the broader governmental data gathering programs.

(6) The Committee expressed concern as to the adequacy of the overall planning and coordination of federal statistics activities. The highly decentralized U.S. statistical system can work well only if needs common to many agencies are provided for and important functions not clearly within the missions of individual agencies are properly performed. For example, there has been a failure to provide regular monitoring of major statistical series and review, revision and updating of their conceptual bases. The Committee also advocated better qualified staffs, access to professional colleagues outside government, and utilization of state of the art techniques.

(7) Rather than weakening the overall statistical structure as by the recent transfer from OMB of the Statistical Policy Division, the Committee called for the creation of general statistical agencies to insure the performance of functions that

(i) involve several agencies but no one agency exclusively.

(ii) require integrated consideration of elements of the economy and society which are in the separate provinces of different agencies,

(iii) are directed more toward t broader aspects of the economy and society than toward particular programs and policies, and

(iv) serve the information needs of broader publics than those to which any given agency may be responsible.

In order to further its recommendations and to provide for continued monitoring of the federal statistical system, the Joint Ad Hoc Committee initiated the formation of the Committee of Professional Associations on Federal Statistics, described in the April 1978 issue of *The Actuary*.

Other organizations represented in JAHCOGS were the American Economic Association, American Political Science Association, American Public Health Association, American Sociological Association, American Statistical Association, Federal Statistics Users' Conference, National Association of Busine Economists, Population Association America, and Society of Actuaries.

A limited number of copies of the April 1978 JAHCOGS report are available from the Society's office. □

THE 1977 SOCIAL SECURITY AMENDMENTS AND THE YOUNG WORKER— AN ILLUSTRATIVE COMPARISON WITH THE SITUATION UNDER THE 1972 ACT

by A. M. Niessen

Less than seven months have elapsed since the enactment of the 1977 social security amendments and already the subject of social security is back in the news. This time, discussion centers around the allegedly harsh treatment that the new law mandates for both young workers and future entrants. Some observers see the situation in such dark colors that they feel justified in calling for a closing down of the System and for the removal of young people from its coverage. The contention is that young people could buy the OASDI benefits for less money from private carriers who presumably would eagerly enter the field. Apparently, these critics take the word "insurance" (the "I" in the "OASDI" program) very seriously. What they fail to see is that the Program is an income redistribution scheme which, although it may be labeled social insurance, is not really insurance in the traditional meaning of the word. Be that as it may, the question of how young workers will be treated under the 1977 Act is here and it is worthwhile to take a closer look at it.

The writer undertook to develop some information based on illustrative examples. With the limited facilities available to him, the writer could make only very rough calculations which, admittedly, do not tell the whole story. Nevertheless, the results of the calculations may be instructive to the reader interested in the subject. The general finding was that the 1977 legislation indeed does do away with the highly favorable treatment implicitly provided to future entrants under the now defunct 1972 Social Security Act. This is clearly evident from the relatively few figures appearing below.

RELATIONSHIPS BETWEEN BENEFITS AND CONTRIBUTIONS OF NEW ENTRANTS UNDER THE 1972 AND 1977 SOCIAL SECURITY ACTS—AN ILLUSTRATIVE COMPARISON

	Maximum wage credits		*Two-thirds of maximum*		*One-half of maximum*	
	1972	1977	1972	1977	1972	1977
Initial monthly retirement benefit—PIA	$8,243	$6,243	$7,125	$5,517	$6,431	$4,306
Benefits as a percent of final covered earnings (at age 64)						
Employee alone	48	26	63	31	75	36
Employee and wife	73	39	94	46	113	54
Present value of 1-percent of future earnings	$5,163	$7,170	$3,442	$4,780	$2,582	$3,585
Equivalent level rate of employee's contributions	5.11%	5.93%	5.11%	5.93%	5.11%	5.93%
Level cost of benefits as a percent of earnings						
Employee alone	6.43	3.51	8.33	4.65	10.03	4.83
All OASDI benefits	13.98	7.63	18.13	10.10	21.81	10.52

TECHNICAL NOTE: Figures pertain to a man who entered social security coverage in January 1978 at age 22. His retirement is expected in January 2021 at age 65 at which time he will have a wife of the same age eligible for auxiliary benefits at full rates. From 1978 onward, wages will be increasing at the rate of 6% per year and the cost of living at 4½%; interest will be 7½%. Mortality before retirement will be according to the 1969-71 U.S. Life Tables for white persons without adjustment and after retirement mortality will be with a two-year rate back in age. Direct computations for the actuarial values of benefits were made only for those beginning after age 65; the other values were obtained from certain published cost estimates (for the 1972 Act) using ratios to costs of the basic retirement benefits. Administrative costs were disregarded.

Particularly striking is the indication that in none of the cases considered would the value of benefits under the 1977 Act come even close to the value of the employee's and his employer's contributions, whereas under the 1972 law, the value of family benefits (including survivor benefits) would have exceeded the value of the combined contributions. This is not really a defect although the public and the news media tend to view it as such. In addition, it should be noted that the change in level costs for new entrants is a very drastic one which was brought about by a significant increase in contributions as well as by a sizable reduction in potential benefits. All in all, the data here presented would seem to provide good ammunition for the critics of the Social Security System. Obviously, however, there is much more to the new entrants issue and it would be improper to judge the merits of a social security program on the basis of actuarial data developed for only a part of its coverage. The issue of contributions versus actuarially purchasable benefits is a very complex one and perhaps not a really relevant one. Although there may have been in depth discussions of this issue, it would

(Continued on page 8)

Social Security and Young Worker

(*Continued from page 7*)

seem that the general public is not familiar with them. This article certainly is not the place for such a discussion but a few general comments might be in order.

The income replacement ratios that are frequently quoted significantly understate the value of Social Security benefits because they relate benefits to gross wages rather than to take home pay. For example, the true ratio for a married man retiring at age 65 in early 1978 (with a dependent wife at least age 65) is 61.4 percent rather than the 50.2 percent obtained from dividing the maximum benefit of $689.70 by $1,375.

As mentioned earlier, Social Security is really an income redistribution scheme, and not an insurance program in the traditional sense. This being so, there should be no criticism if certain groups do not receive the "value" of their contributions. A worthwhile side benefit not usually mentioned by the critics is that Social Security frees the young worker from the obligation of financial aid to his parents or aged relatives, who, in most cases, will be entitled to benefits on their own work records.

It is not altogether clear that private carriers would be willing to venture into the field of truly dynamic benefits. This would, of course, make the whole discussion of farming out the lucrative part of Social Security coverage pointless and strictly of academic interest.

Let us assume for the moment that farming out is feasible and that Social Security would be transformed into a closed system. An educated guess (based on a 1976 estimate of $4.2 trillion under the 1972 law) would place the actuarial deficiency for a closed system under the 1977 law at about $3 trillion. To amortize such an amount over a period of, say, 30 years would take some 8 percent of the personal income derived from employment and investments. Since this would have to come from taxes in one form or another, how then would the younger worker profit from this situation in the foreseeable future?

Public attitudes being what they are, it can be expected that the 1977 reforms will be short lived and that a good part of the cuts in benefit expectations will be eliminated. Another strong possibility is that government subsidies will replace a part of payroll taxes. While this would certainly not reduce the costs of the program, it would make the situation more palatable to the public and this is, after all, what counts in the mind of the politicians. Should general revenue financing become a reality we may well see a revival of expansionist tendencies with all that the implementation of these tendencies would entail for the economy at large, for individuals, and for private pensions. A good public education effort is needed in this area and it is hoped that the actuarial profession will play a prominent part in such an endeavor. ☐

SECOND CALL—PAPERS FOR BANFF

by Robert E. Hunstad

The June 7-8, 1979, meeting of the Society of Actuaries to be held at Banff is scheduled as a special topic meeting on Health Insurance.

The Committee on Health and Group Insurance of the Society's Continuing Education Committee has responsibility to assist in the development of the program for this meeting.

Mr. Stephen T. Carter, Chairman of that Committee, has announced that in order to encourage the writing of papers for presentation at this meeting, prizes will be awarded for the two best papers presented.

The first prize will be $300 and the second prize $200. These prizes are being made available by a grant from the Actuarial Education and Research Fund.

The procedure for submitting papers is given in the Year Book. To assure consideration for presentation at the Banff meeting and eligibility for the prize awards, papers should be submitted no later than September 15, 1978. Papers submitted after that date may still be considered for use and for prize awards but have less likelihood of being processed in time.

Any questions may be directed to members of the Health and Group Insurance Committee. They are listed in the Year Book. ☐

FUTURE OF RISK—A SYMPOSIUM

Sponsored by
Risk Studies Foundation

Risk in the immediate and distant future will be scrutinized by scientists, academicians and the business and insurance communities at a symposium to be held by the Risk Studies Foundation from Monday, September 25 to Wednesday, September 27, at the Waldorf-Astoria Hotel in New York. A not-for-profit adjunct of the Risk and Insurance Management Society, the Risk Studies Foundation was founded in 1975 to research the multifaceted fields of risk and insurance management and interrelated disciplines.

Topics to be discussed in the two-and-one-half day forum are: Energy and Economic Dislocations; Future Prospects For Climate Change, Weather Control and Natural Disasters; International Political Flux; Individual Health Patterns; Centralization and The Future Of Crime.

Registration fee for the meeting, . cluding luncheons on September 25 and 26, is $295.00. To register or obtain a descriptive brochure, write Risk Studies Foundation, 205 East 42nd Street, New York, New York 10017. ☐

Trust Funds

(*Continued from page 1*)

2030. Because of the large number of children born in the 1950's and 1960's, the cost of the system increases rapidly after the first 50 years and remains relatively high. Over the long-range 75-year period, the system is estimated to have a deficit of 1.40 percent of taxable payroll (based on average costs of 13.55 and average taxes of 12.16).

The Boards of Trustees recommend to the Congress not to consider rolling back the social security tax increases enacted last year until the current Social Security Advisory Council finishes its study of the system.

For free copies of any of the three Trustees Reports, write to: Social Security Administration, Office of the Actuary, Altmeyer Building — Room 707, 6401 Security Boulevard, Baltimore, Maryland 21235. ☐