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make it appear to be a trade association of the major employers of actuaries (i.e. life insurance companies), was an important argument opposed to the adoption of Article X. Other arguments against the adoption of Article X, which were listed in President Moorhead's information memorandum before the 1970 vote on adoption, included:

"(2) Public expressions should be left in the hands of the two national actuarial bodies—the American Academy of Actuaries and the Canadian Institute of Actuaries respectively.

"(3) Expressions on controversial issues can be divisive and hence can impair the ability of the Society to achieve the primary purposes set forth in its Constitution.

"(4) Public expressions should be restricted to position papers setting forth the arguments on both sides of any issue.

"(5) Members who depend upon their Society designation for their livelihood can be embarassed by an expression with which they disagree. The normal procedure of resigning is not open to them except at severe personal sacrifice. This applies also to Associates who will have had no voice in the decision."

However, the strict conditions on expression of opinion in Article X were cited by proponents of Article X's adoption.

The signers of the letter sent it to the Supreme Court, and publicized it, in the earnest belief that the publicity will deter future transgressions of the spirit and letter of Article X.

I take great pride in the Society as a learned society. It is quite successful in attaining its objectives—"to advance the knowledge of actuarial science and to promote the maintenance of high standards of competence and conduct within the actuarial profession." I do not want to see these objectives compromised with any pursuit, by the Society as such, of the personal and business interests of its members or of the business interests of its members' employers and clients. Actuaries should pursue these interests through other organizations (actuarial and otherwise) and as individuals.

## A CRITIQUE OF THE MANHART BRIEF

*by Arthur W. Anderson*

Whether the Society violated its Constitution by co-sponsoring the *Manhart* brief would be of purely academic interest if the brief were indeed just an exposition of actuarial concepts with which all members of the Society could agree. I suggest that the lack of logical precision in the brief does not reflect favorably on the Society as a whole. It is to this criticism that I address myself.

The brief is divided into five main sections entitled respectively, "Interest of the Amici Curiae", "Introduction and Summary", "Argument", "Conclusion", and "Appendices." I shall comment on certain of those sections under the same headings.

*"Introduction and Summary"*

After a brief review of the number and extent of non-OASDI pension plans and description of certain technical terms (defined benefit, defined contribution, etc.) the brief present its major thesis:

"Women, as a class, live longer than men, as a class. A group made up of a reasonably large number of women will survive for a greater number of years than will an equal number of men, if all other factors that affect longevity, primarily age distribution and health, are identical. The difference is substantial."

But the importance of this statement is unclear because an equally valid statement would be the following:

"Persons in good health, as class, live longer than those in ill health, as a class. A group made up of a reasonably large number of persons in good health will survive for a greater number of years than will an equal number of persons in ill health, if all other factors that affect longevity, primarily age distribution and sex, are identical."

Both statements are really just corollaries to the obvious fact that longevity is a function affected by a number of variables—health, age, sex, etc.—and if all of the variables but one are held constant, the remaining variables will have a marginal effect.

It would have been helpful to the Court, I think, if some indication had been given as to the relative importance of the various factors affecting longevity. The 1976 Reports issue of the *Transactions*, for example, shows that for standard insured persons mortality of females is about 63% of male mortality, but the Build and Blood Pressure Study of 1959 indicated that certain medical impairments can cause mortality rates on the order of 500% of standard. A 1976 paper by John M. Bragg presented to the 20th International Congress of Actuaries (Tokyo, 1976) implies that socio-economic class is at least as important a factor as sex. We also know that occupation and hobbies such as aviation are important, as are habits such as smoking and drinking. A more scholarly and dispassionate presentation to the Court would have included some of these facts, and would have reminded them that if we consider each of the variables that are correlated with longevity on a marginal basis we will find some (health, for instance) more influential than sex.

*"Argument"*

This segment of the brief opens with a discussion of pooling and classification of risks, concentrating on a hypothetical example of 10,000 persons, each with $100,000 in savings and a desire to form an annuity pool. It develops the actuarial principle that "each member of the group should be charged in proportion to the risk that he or she contributes to the pool . . ." The brief argues that this "actuarial equity" is necessary in any such arrangement because (1) if the arrangement is set up as a business, there would be anti-selection if benefits were not proportional to risks, and (2) equity among individuals is a desirable goal even if no insurance product is involved. The brief notes, however, "that it is not only impossible to quantify the risk contributed by each individual, it is also not necessary to extend the classification process to the ultimate limit." Rather, classes with relatively small differences in risk may be ignored as may those "classifications which may be perfectly feasible from an actuarial standpoint (but which) may be barred by others for reasons of social policy. For example, black persons . . ."

This honest review of the subject is, however, concluded with the following puzzling remark:

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## Manhart Case

(Continued from page 5)

"If any classification that is actuarially sensible is to be prohibited by law, it must be done by persons responsible for making and interpreting the law. Such a decision will ordinarily be accompanied by an increase in cost or by a change in the manner in which total cost is divided, and ideally the persons responsible for the prohibition should decide how the division of costs should be made."

Increase in cost of what? to whom? divided among whom? What does "actuarially sensible" mean? Is the Society asking for judicial or legislative participation in the process of deciding how allocations of actuarial liabilities should be made? Later, the brief takes a contrary view and emphasizes that any decision in *Manhart* should not be worded so as to deprive pension actuaries of their responsibility to choose assumptions. The brief never resolves the apparent contradiction.

The next and largest portion of this segment of the brief is devoted to the subject of "Classification on the Basis of Sex in the Administration of Retirement Programs and the Effect of Prohibiting This Practice."

Addressing first non-contributory defined benefit plans, the brief notes that sex classification can arise when pensions in the normal form are converted to optional forms. For example, a "typical trusteed plan" provides that if a man aged 65 (with a wife the same age) chooses a 50% joint-and-survivor annuity in place of the normal life annuity, he would receive only $870 per month instead of $1,000 in the normal form, whereas if the sexes were reversed, the woman employee could receive $940 a month instead of $1,000.

"The $70 difference reflects the fact that the beneficiaries added in each case have different life expectancies. The female employee has less reduction because there is less chance that her husband would collect payments after her death than there is in the case of a male employee with a wife age 65. The pensions are thus kept equal in cost . . . ."

But this is circular reasoning! The *costs* of the two pensions are unknown at the time the actuarial reductions are made—the man's wife may be on her deathbed and the woman's husband a splendid physical specimen—only the *actuarial present values* are kept equal; the costs are what the actuary is trying to predict. In this example the dependence of mortality upon age and sex alone is *presumed*, and the calculation of actuarial equivalence made accordingly. This calculation, in turn, can reveal no information about the difference in *cost* of benefits for males and females, because the cost is implicit in the assumption that mortality will follow the tables. The distinction between actuarial present value and cost is fundamental—one which the Society in particular should be careful to make.

More faulty logic is used to remark upon the "cost" of using identical lump-sum option factors for males and females, which, according to the brief might result in "the determination by some employers to eliminate . . . the lump-sum distribution option. This would be disadvantageous to the class of both women and men who might find the lump-sum option attractive for such reasons as *major illness*." (Emphasis mine.) Thus, the brief asks the Court to accept the following chain of reasoning: (1) if actuarial computations "were made without reference to sexes of the individuals in the group, the result would be seriously and unacceptably erroneous" (page 8); (2) this error could result in selection against the plan by male employees (page 17); (3) such anti-selection would encourage employers to eliminate the lump-sum option (page 18); with the result that (4) persons with major illnesses would be denied the opportunity to select against the plan by electing lump-sums (page 18)! By now, the brief is becoming entangled in its own illogic.

Actuaries know that "actuarial equivalence" is not an absolute measure but one which depends upon the mortality and interest assumptions made beforehand. The brief, however, tries to imply the existence of an absolute actuarial equivalence (page 19).

If the law prohibits taking sex into account in determining benefits and contributions, it will not thereby be decreeing identical benefits or contributions rather than actuarially equivalent ones, but it will only be placing a limitation on how individuals may be distinguished in the mortality assumption—just as it does in the case of race. There are some actuaries, no doubt, who would say that identical annuity rates for blacks and whites are not actuarially equivalent because the mortality rates of the two races are different. Other actuaries might choose not to use race as a criterion and would declare the opposite—it is a matter of professional judgment which criteria are important, not of mathematical precision. This fact, which should be familiar to all actuaries, is obscured by the language of the brief which refers again in the Conclusion (page 30) to the choice between equality and actuarial equivalence.

At last, on page 21, the brief addresses itself to the very real possibility that sex may no longer be a legal criterion for predicting longevity:

"Whether (unisex mortality tables instead of sex-based tables) would be an *acceptable* solution is a matter which is exceedingly complex, and an accurate explanation of the problems that would be created and the manner in which they might be solved would require careful and detailed analysis at least as lengthy as that already set forth in this brief . . . . In order to avoid unduly the length of this brief, we shall not undertake to discuss any of those problems here."

But, in ducking this question, the brief misses an opportunity to make a real contribution to the debate. Instead, it assumes throughout that whatever restrictions may be placed upon *plans* with regard to sex discrimination, *insurance companies* will not change the terms of their pension-related products.

These "problems", of the insurance industry, however, are not identified in the brief, and their impact, one suspects, would be felt more keenly by the insurance companies than by the plans themselves. The response of the industry is easy to predict: it would have to obey the law or withdraw from the pension business, and I predict the former—there could be no competitive disadvantages because all insurance companies would have to comply.

Of course, if one assumes one law applying to plans and a different law applying to insurance companies who do business with these plans, there is no end to the incongruous scenarios one can concoct and the paradoxes which result.

On page 25, the brief creates a couple of these. Not only do these examples rest on a false premise, but when they lead to the vision of "abandoned" plans it is straining to emphasize the argument. Wouldn't it be more likely that if plans could not discriminate by sex, and if insurance companies were unwilling to offer unisex products, the plans would abandon the insurance companies?

*"The Intent of Congress"*

This segment of the brief opens with the candid admission that the brief is departing from its earlier commitment to leave legal interpretations to others. The second paragraph reads:

"So far as the views of the Congress which adopted the 1964 (Civil Rights) Act are concerned, *we think it reasonably clear* that neither the members of that Congress nor the members of the committee that drafted and considered the legislation ever *focused in any meaningful way* upon what was meant by the meaning (sic) of the term "discrimination" in this intricate context. There does not *seem* to have been even scant consideration, when that Act was adopted, of the extent and the manner to which classification on the basis of sex had been previously employed in connection with the determination of contribution and benefit levels for employee retirement plans and to what extent, if any, then current practices might have to be modified as a result of passage of the Act." (Emphasis mine).

This bold assertion is offered without any substantiation whatever: why do the drafters of the brief find it "reasonably clear" that Congress never "focused in any meaningful way" on the complex implications of the Act?

The third paragraph in this segment returns to "insurance contract plans," which earlier had been incorrectly linked with defined contribution plans," citing the fact that ERISA defines the cash surrender value to *be* the accrued benefit under such plans. Since these cash values are based upon sex, the brief argues. "There is no doubt . . . that (Congress) expressly authorized the adoption . . . of a plan that included . . . payment of numerically unequal benefits to men and women upon termination of employment." The brief asserts, again without evidence, that

"In this instance the members of the committee that drafted and considered the legislation were quite knowledgeable . . . and did understand that the (insurance contract plan) would provide cash surrender values for female employees that were higher than the corresponding values provided for male employees with identical employment histories, although we must point out that *we know of no statement in the legislative history that reflects this understanding.*" (Emphasis mine.)

A misstatement of fact occurs in the footnote on page 28, where it is stated that the Pension Benefit Guaranty Corporation uses annuity rates that vary by sex; the brief uses this as support for the contention that Congress intended sex-differentiated annuity rates to be used in pension plans. The fact, however, is that PBGC annuity rates are designed to represent typical insurance company terminal-funding rates: since the insurance company rates vary by sex so do those of the PBGC.

The brief concedes (page 29) that the inclusion in Internal Revenue Code Section 411(c) of a conversion factor of 10% for converting employee contributions to amount of annuity "indicates that the use of a "unisex" table is appropriate in certain circumstances. . . ." But what *facts* has the brief adduced concerning the intent of Congress in the matter of unisex mortality tables? Precisely none! First we had the unsubstantiated assertion (opinion, not fact) that the framers of the Civil Rights Act did not know what they were doing, and second, another assertion that the framers of ERISA *did* known what they were doing but that there is no supporting evidence in the legislative history. The only "fact' offered was the erroneous footnote mentioned above.

*"Appendices"*

Here there is a review of some of the literature relating to differences in the mortality of the sexes: 11 citations and 3-1/2 pages of text supporting the idea that these differences are organic, and *one* sentence and *one* citation supporting the opposite view.

The 1977 Yearbook of the Society says (page 14) that the Committee on Papers, in deciding whether or not to accept a paper for publication, will be guided by several considerations among which are the following:

"The form, clarity, and literary quality of the paper must meet scholarly standards that will reflect credit upon the Society."

and

"The Committee on Papers welcomes controversy, candor, and genuine debate, subject to the usual expectations of clarity, pertinence, and courtesy. The paper should recognize other viewpoints and explore its subject in sufficient depth to contribute to general enlightenment."

I suggest that the brief does not meet these high standards, and in fact would never have been accepted for publication in the *Transactions*. The liberties taken by the brief with logic and common sense reflect poorly on the Society and its members. I urge every member to review the brief, judge for himself whether it upholds our motto "to substitute facts for appearances and demonstrations for impressions," and let the leadership of the Society hear his verdict.

The question of elimination of sex discrimination is basically a political one, which, by the actions of Congress, has been reduced to a legal matter. The practical difficulties are certainly there, but are these so important as to override the desire for freedom from discrimination? We can decide these questions for ourselves as citizens, but as actuaries we really have little to contribute: there simply is no compelling actuarial reason why, having ignored health, class, smoking, and other important factors affecting longevity, we cannot now rid pension plans of sex discrimination. Obviously these comments reflect my personal opinions. □

*NOTE: The Board of Governors considered, at its May 17 meeting, the comments of the challengers, and believes the statements in the Brief are substantially factual. Since it was the Board's intention to express facts rather than opinions, it believes its actions were proper in the context of Article X. Aside from Mr. Grubb's general comments on the following page, more details on the Article X discussion will appear in a future issue.*