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THE
GENDER EFFECTS OF
UNISEX PENSION
BENEFITS: WILL
THE SUPREME
COURT DECISION
BE TORN
ASUNDER? +

by

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THE GENDER EFFECTS OF UNISEX PENSION BENEFITS:
WILL THE SUPREME COURT DECISION BE TORN ASUNDER?

I. Introduction

In a landmark ruling in July, 1983 (Arizona Governing Committee v. Norris), the Supreme Court established that Title VII of the Civil Rights Act is violated when an employer makes any differentiation in the payment of retirement benefits based upon the sex of the employee.¹

This initial case involved an employee of the State of Arizona who signed up for an annuity retirement plan offered by the State. Although identically situated men and women made equal contributions, the monthly annuity payments were less for women; this was based on actuarial tables showing that women, on average, live longer than men.

The Court ruled that the longer life of women as a group compared with men as a group does not permit insurance companies, as part of employer-sponsored retirement plans, to pay lower monthly annuity benefits to women. The Court's decision was based on its interpretation of Title VII of the Civil Rights Act which requires employees to be treated as individuals rather than as members of a group.

The Court reaffirmed the Norris decision in October, 1984, when it let stand a lower court ruling (Long Island v. Spirit) ordering the Teachers Insurance and Annuity Association and the College Retirement Equities Fund (TIAA/CREF) to pay equal monthly pension benefits to all men and women.² These rulings were primarily applicable to defined contribution pension plans, in which employers or employees or both make set payments into the plan and establish an accumulated, or vested, balance. Men and women generally pay the same amount into the plan, but the resulting benefits based on actuarial tables are usually lower for women with the same accumulated balance.

At the time of the Court's decision, the American Council of Life Insurance estimated that up to three million women were covered by plans that provided smaller benefits for women. There are several ways in which the insurance companies can redesign their rate structures to achieve the desired results of providing equal treatment for the sexes. Options which have been suggested include "topping off" women's benefits by raising them to equal men's; reduce the men's benefits; strike an average of the two based on the average longevity of the work force or develop an average which reflects the proportion of men and women selecting each option; or eliminate payment of lifetime annuities, giving employees their benefits in a lump sum when they retire or otherwise leave the employer.

Because the move to unisex tables requires overhauling rate structures, the insurance industry has opposed the Supreme Court decision and any possible legislation requiring equal treatment for the sexes. These arguments against unisex benefits have been made on several grounds. First, insurance firms have argued that providing equal treatment of the sexes would be costly. In Norris, the Supreme Court recognized the potential financial burden on insurance firms when it ruled that the unisex tables applied only to contributions made after August, 1983. Unlike other Title VII cases, the antidiscrimination remedy was not applied retroactively. Implicitly, the Court said that companies were not required to top off women's benefits to equal those of men. Interestingly, in Spirit the Court ruled that TIAA-CREF would not suffer undue financial burden and ordered unisex rates effective May 1, 1980.

A second argument against unisex tables is that the practice will result in a shift of benefits from men to women. Adjustments made by individuals, however, may minimize these shifts, but at the same time may undermine the intentions of the Supreme Court. The ruling of the Supreme Court applies only to

employer-sponsored annuities, while commercial insurance companies are not required to use unisex tables. To illustrate the effect of possible adjustments, assume initially that the unisex benefits are some average of the pre-unisex rates, with the effect that the men's benefits are reduced while those of women are increased. If the pension plan offers a lump sum option, men would have an incentive to take this option and purchase an annuity with higher benefits from a commercial insurance company. But no commercial insurance company would be willing to sell a woman an annuity equal to her now higher unisex rate. If all men select the lump sum option, the employer's provider, wishing to keep benefits less than contributions, will set the unisex rate close to or at the pre-unisex women's rate. In this case, there is no transfer of benefits and the position of women has not been improved.

In a related argument, critics of unisex tables say the practice will result in employers and insurance companies ceasing to offer lifetime annuities as a retirement option and note that Arizona eliminated that choice after Mrs. Norris filed suit. It is argued that unisex tables have no impact on lump sum distributions or annuities written for a specific period because even prior to unisex, men and women were treated the same in these cases. To avoid the costly administration of unisex tables, pension providers would simply drop the lifetime annuity option. It is argued that both men and women will be worse off because they would have to surrender the protection afforded by such annuities. However, barring legislation requiring the use of unisex tables by all insurance firms, annuities could still be purchased from commercial insurance companies. But if the commercial companies continue to use sex-specific tables women will be no better off.³

These arguments against the use of sex-neutral tables suggest ways in which adjustments made by individuals and/or pension providers could undo any intended

transfer effect of the Supreme Court decision to impose unisex tables. It has also been suggested that the imposition of unisex tables could pose a financial burden on insurance providers. These conclusions are not necessarily true. In the next section we will illustrate how unisex tables were developed by the University of Minnesota. We will discuss the problems associated with the development of sex-neutral tables and the potential adjustments of individuals and providers resulting from the use of these tables. We will then conclude the paper with an overall assessment of the results found in this analysis.

II. Reactions to the Supreme Court Decision

As a result of the 1983 Supreme Court decision employers, or their insurance providers, have needed to develop unisex pension tables to replace the previous sex specific, or non-unisex, tables which they used to determine pension benefits. We will discuss how this was done by one employer, the University of Minnesota, and its insurance providers, Minnesota Mutual Life and Northwestern National Life (MML-NWNL). In the process of analyzing the unisex tables they have developed we will mention alternatives that could have been devised. Also, we will suggest how this unisex table, or others, might influence the retirement choices of males and females in the future. Inasmuch as the University of Minnesota only developed the unisex tables in 1984 and didn't allow a lump-sum choice until 1985, which is important as will be explained, it is too early to analyze whether retirement choices have yet been altered. We will, however, suggest how such choices are likely to change in the years ahead.

To analyze the imposition of unisex tables we have prepared Table 1 for someone retiring at age 62 with \$100,000 of fixed annuity contributions (analysis of other ages and contributions yielded the same conclusions). It should be noted that this fund is a defined contribution plan with vesting and so at retirement each member has a vested or accumulated balance which is used to determine monthly benefits. We have made these determinations for several alternative choices which are available and also for a 100-year certain/life (i.e., the retiree will be paid for 100 years or their life, whichever is longer) option. The latter benefits are estimated to illustrate an option which would, or should, not depend on actuarial age since anyone making the selection would collect for 100 years, rather than their life.

We begin by assuming that the non-unisex system is actuarially consistent in that the benefits have been set so that a man, or woman, should be indifferent

between the choices they have. This means in probability terms that the expected value is equal for any choice a man or woman might make. We would also assume that the benefits are less than the contributions by some percentage, or that the company has a profit or margin built into the benefits. However, we do not intend to try to determine what that margin might be but we will suggest later that the switch to unisex has probably increased the profits for the company.

In order to develop the unisex table now actually being used by MML-NWNL (Unisex I in Table 1) it would seem that they adjusted the 10-year certain/life choice (to \$940/month) to be some weighted average of the non-unisex benefits (\$973 for men and \$922 for women). While this number, \$940, seems plausible, it is difficult to determine if it is "fair." By "fair" we mean that if there were an equal number of men and women the unisex value should be the simple average of the male and female benefits, or \$947.50. Setting the rate at \$940 would only be "fair" if there were more women in the fund than men, which is not the case for this group. This inconsistency, which can be considered "unfair," will be explained later in the discussion of the lump-sum option.

Then it seems as though to get the other Unisex I figures they imposed the same ratios (as a percent of life annuity, LA) as in the non-unisex table. As a result, for each choice the men's benefit was lowered 3 percent while the women's benefit was raised 2 percent. Given this is what was done it raises two questions: (1) does this comply with the Supreme Court decision and (2) will the new tables have actuarial consistency.

On the first question it depends if the decision forces equal benefits for all options or only the "base" option, which for MML-NWNL is the 10-year certain/life. As seen in Table 1, only this base option was made equal (in dollars). Another possibility would be to make each option, not just the 10

Table 1: Monthly Benefits for Alternative Retirement Choices¹
(Retirement at age 62 with \$100,000 balance)

<u>Type of System:</u>	Non-Unisex ²		Unisex I ²		Unisex II ³	
	Female	Male	Female	Male	Female	Male
<u>Sex:</u>						
<u>Choice:</u>						
Life Annuity (LA)	946	1017	964	982	971	971
(% of LA)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)	(1.00)
Non-unisex Balance ⁴	100,000	100,000	101,894	96,560	102,643	95,477
5-year certain/life ⁵	940	1,005	958	971	963	963
(% of LA)	(.994)	(.988)	(.994)	(.988)	(.992)	(.992)
Non-unisex Balance ⁴	100,000	100,000	101,894	96,560	102,447	95,821
10-year certain/life ⁵	922	973	940	940	940	940
(% of LA)	(.975)	(.957)	(.975)	(.957)	(.968)	(.968)
Non-unisex Balance ⁴	100,000	100,000	101,894	96,560	101,894	96,560
20-year certain/life ⁵	848	858	865	829	852	852
(% of LA)	(.896)	(.844)	(.897)	(.844)	(.877)	(.877)
Non-unisex Balance ⁴	100,000	100,000	101,894	96,560	100,472	99,301
100-year certain/life ⁶	877	877	894	846	877	877
(% of LA)	(.927)	(.862)	(.927)	(.862)	(.903)	(.903)
Non-unisex Balance ⁴	100,000	100,000	101,894	96,560	100,000	100,000
Lump-sum	100,000	100,000	101,894	96,560	100,000	100,000
(% of LA)	(105.7)	(98.33)	(105.7)	(98.33)	(103)	(103)

¹ All choices are for a single employee and do not involve joint survivor choices which could also be offered.

² These systems are currently being used by the University of Minnesota Retirement Plan.

³ This unisex system is not being offered but was constructed as an illustration of a table which provides equal dollar benefits for each sex for each choice.

⁴ This is the balance a retiree would need to get unisex benefit under the (previous) non-unisex system rates.

⁵ These choices provide the monthly payments indicated for a certain number of years or the life of the retiree, whichever is longer.

⁶ This choice is not one offered but was determined based on a 100-year annuity using the same 10% rate of interest that MML-NWNL used to determine benefits for the other choices. It should be noted that this choice should be lower than the others but it is not, probably because the others reflect a profit margin for the company.

year certain/life choice, have the same dollar benefits for each sex. We have developed an illustration of this (Unisex II in Table 1) by imposing equal dollar values for each option that are the same weighted average of the non-unisex benefits as MML-NWNL developed for the 10-year certain/life choice. By doing this, however, we have changed the choices such that they are different percentages of the life annuity than they were under the non-unisex system. As a result, Unisex II would alter the actuarial consistency, which we assume the non-unisex system had and the Unisex I system retained. This consistency, which differs by sex, is based on an assumption of different life expectancies for each sex. The Unisex I system devised by MML-NWNL retained this assumption, whereas a system of equal dollar benefits for each option, like Unisex II, would not. The percentages (and dollars) are the same for each sex in Unisex II and so it effectively assumes that men and women have the same life expectancies.

An issue to be raised is whether the intention of the Supreme Court decision was to impose choices like Unisex II, which are equal (in dollars) for each sex for all options, or to allow an interpretation of the decision such as MML-NWNL made in devising Unisex I. The former would more explicitly require insurance providers to not recognize differences in life expectancies between sexes. However, if Unisex II, or a similar table, were used, then individuals, men or women, who believed in actuarial evidence that women live longer than men would no longer view the choices indifferently (i.e., as having the same equal expected values). Given the numbers in Unisex II and considering the annuity options available, men would find the 20-year certain/life choice most attractive while women would see the life annuity as their best buy. The best buy for each sex in Table 1 can be determined in terms of the Non-unisex Balance, which is the balance the retiree would need to get a particular monthly unisex benefit under the (previous) non-unisex system. These balances are under \$100,000 for

men and over \$100,000 for women, reflective of the transfer from men to women inherent in implementing the unisex Supreme Court decision.

It might also be noted that another defined contribution plan which covers many universities, TIAA-CREF, has revised its tables by lowering male and raising female benefits by an equal percentage and has made different percentage adjustments for each option.⁴ This can be seen as a third interpretation of what constitutes compliance with the Supreme Court Decision. At this point it is fair to say that the systems are not the same and it remains to be seen which, if any, the court will find acceptable.

Having suggested that the unisex system (Unisex I in Table 1) devised by MML-NWNL may or may not comply with the Supreme Court decision, we will now proceed with a more formal analysis of this system and compare it to others.

The MML-NWNL Unisex I system has, as noted, retained the same proportions (of LA) for each choice as the non-unisex choices. This makes each sex indifferent between their choices based on life expectancies. That is, they have retained the actuarial consistency of the non-unisex life expectancies of men and women. Furthermore, by retaining different proportions (of LA) for men and women they are continuing to assume, implicitly, that men and women have different life expectancies. This assumption might have been relaxed if they had set equal proportions, and so equal dollar benefits, for men and women for each of the options (see, for an example, Unisex II in Table 1). Instead, they have only made the base option (10-year certain/life) equal, in dollars, for men and women. It should be noted that had equal dollar benefits been provided for other than the one option, the choices for each sex would no longer have equal expected values (as is the case for Unisex II) and so men and women could make choices that would lead to the table being undermined (i.e., company could see benefits paid exceed contributions). This possibility will be discussed in

greater detail with respect to the lump-sum option which can most clearly under-
mine the type of unisex system (I) developed in Table 1.

Specifically, the system will be consistent if men are given a lump-sum
option which is determined by taking the same ratio (to LA) as they had under
the non-unisex system. It is here that we see, most obviously, the inherent
problem with having a unisex table and trying to maintain actuarial consistency,
or making men/women indifferent between their options. In order for this to be
done within a unisex table the men's lump-sum should be \$96,560 and the women's
\$101,894 (see Table 1). These are the contributions required to buy the new
unisex benefits using the old non-unisex rates, or the Non-unisex Balance. That
is, a man would have needed only \$96,500 to get \$940/month under the non-unisex
system whereas he now needs \$100,000 to get \$940 with the Unisex I system. If
these are made the lump-sum choices, then men and women would remain indifferent
between the options, including lump-sum. If, however, the lump-sum option is
left at \$100,000 for both sexes then it becomes the best choice for men and the
worst for women.

An interesting consideration, or aspect, of the move to a unisex table is
the redistribution implications for men and women. The lump-sum figures just
noted, \$96,560 for men and \$101,894 for women, provide one way of comparing the
lose/gain for men/women as a result of the shift to unisex. The man is now able
to buy \$96,560 (or \$3,440 less than with non-unisex) worth of benefits and we
assume the choices are of equal value from an actuarial standpoint, as they
were under the non-unisex system. On the other hand, the women gain, or have,
an extra \$1,894 to buy benefits.

A question can be raised as to whether $-\$3,440$ for men and $+\$1,894$ for women
is justified. These figures should reflect the percent men/women in the system
for whom the redistribution is being made. If the number of men and women were

equal, then the dollar gains/losses should be equal. The numbers found ($-\$3,440$ and $+\$1,894$) are only fair if the percent men were $1894/1894 + 3440 = 1894/5334 = .36$ and percent women were $3440/5334 = .64$. If, as is more likely, the percent men is higher than the company in imposing unisex has worked in a profit as a part of the redistribution. For example, if the plan has 100 men and 100 women then in going to unisex men lose $100 \times 3440 = \$344,000$ while women gain $\$189,400$. The difference (of $\$154,600$) is not redistributed and is being retained by the company.

This way of analyzing the effects of redistribution may be clearer than looking at the $\$940$ unisex benefit vs. the $\$973$ (male) and $\$922$ (female) non-unisex benefits. The $\$940$ suggests the company has "fairly" selected a number between the previous non-unisex values but it is not clear how to determine if it is fair. The lump-sum comparison just discussed seems to allow for determination of fairness (in terms of percent male/female in the plan). We would sense that if the company imposed $\$922$ as the unisex amount it would not be fair (unless all in the fund were female) but the fact that $\$940$ is only fair if 36 percent of those in fund are men is much less obvious.

The conclusion would be that this fund has imposed unisex in a way which takes from men and gives to women but leaves some profit in the process. Also, the choices men and women face have remained consistent (percent of LA unchanged) and so each sex should remain indifferent between options.

The exception to this last point would be the lump-sum option. In order to be consistent with other choices the lump-sum would have to be made different for men and women, as explained. In practice this is not likely to occur. Rather, if a lump-sum choice is offered it will be an equal dollar amount for men and women. This choice will then be inconsistent with the others (see percent of LA) and will offer the men their best and the women their worst option.

If this is realized by men they would choose it over others because it has a higher expected value than the other options, which all have the same (consistent) lower expected value.

By allowing the lump-sum, companies who developed systems like Unisex I can see their effort to go to unisex (and also to make a profit as suggested) being potentially undermined. If all the men took the lump-sum, in fact, only women would be left taking the other options and the unisex values would return to the non-unisex female rates. Consequently, one prediction is that companies which have gone to unisex, such as the MML-NWNL tables examined, are going to resist a lump-sum option.

At the University of Minnesota (which uses the MML-NWNL tables discussed) there was a decision made in 1985 to offer a lump-sum option and this was resisted by the employee benefits department and MML-NWNL. However, the arguments for/against the lump-sum option did not address the issue of unisex tables as it has been posed in this paper. Given the decision was to allow lump-sum, we would predict that choices will change and that the actuarial consistency that MML-NWNL had carried over from the non-unisex system to the Unisex I system will be lost. If, and when, this occurs there will be a need to revise the Unisex I system.

III. Conclusions

Although the Supreme Court decision in Norris mandated the use of unisex tables it did not explicitly state how such tables should be developed. To comply with the Court's ruling of providing equal benefits for men and women, insurance providers to employer-sponsored pension plans could simply eliminate the annuity option and allow only lump-sum payments. If, however, the annuity option is retained several alternatives may be employed. This paper has discussed possible alternatives that could be devised and their potential influence on the retirement choices of males and females.

Using the changes made by the University of Minnesota as an example, it was concluded that men would have an incentive to take the lump-sum option while women would prefer the lifetime annuity. If all men and women act according to these preferences, benefits would exceed contribution and the system would have to be further revised.

An important question then is how, or if, unisex changes actually affect the retirement decision of employees, and, in particular, what gender effects result regarding pensions. Due to the recency of the Court's decision and the resulting changes, adequate data is not available to answer this question. However, we plan to monitor this issue and can suggest a methodology to be used once data becomes available.

The methodology to be used is multiple regression (both linear and logit/probit specifications will be estimated) with the dependent (Y) variable being specified as (1) the ratio of monthly pension benefit chosen to a lump-sum distribution and (2) a dummy variable equal to 1 if lump-sum chosen and 0 if annuity chosen. A higher Y value is reflective of the individual choosing a shorter term pension option (e.g., equals 1 if lump-sum chosen). Variations in this variable (between 0 and 1) among individuals will be explained using age,

marital status, and other demographic information as independent variables. The model will be estimated with data for the same pension fund before and after the imposition of unisex tables at the fund. This change will be modeled as a dummy variable and is hypothesized to be positive for the male sample (i.e., males will opt for shorter term (Y higher value) pension after unisex tables are imposed) while for females this dummy variable should be negative reflecting the opposite tendency (move toward longer term).

Based on the results of the two (male and female) equations an estimate will be made of the extent to which the transfer in benefits from male to female resulting from the imposition of unisex tables has been negated, or reduced, by the change in choices of pension term for the two genders. This will demonstrate how such an analysis could be undertaken by any fund, or their actuaries, trying to determine what effects the Supreme Court decision will have on their operation.

From a larger perspective the results will determine if the effects of the Supreme Court are as far reaching as some have argued. If it is found that individuals do not alter their choices when a unisex table is imposed it indirectly proves that their perceptions of life expectancy are formed independent of actuarial evidence or that their pension choices are not based on life expectancy at all. The former finding would be troubling to actuarial scientists while the latter should bother economists. It would, however, lend more credibility to the Supreme Court's decision which has been criticized as ignoring both actuarial and economic theory.

FOOTNOTES

- ¹ For background on Norris and a discussion of the potential effects see, for example, Gest (1983) and G. Bernstein (1983).
- ² See, for example, Fields (1984) for a discussion of Spirit.
- ³ In a suit against the IRS, a federal appeals court ruled that the sex-specific used by the IRS did not cause discrimination against women. The decision is significant for the insurance industry which continues to use such tables. See Siconolfi (1985).

Despite this ruling, the IRS has adopted unisex tables. The use of these tables will benefit male IRA holders. With sex-specific tables in effect, a man age 70½ would have to withdraw more each year than a woman of the same age. The use of unisex tables lengthens the pay out period for men allowing more IRA money to be sheltered from taxes. Such an advantage increases the incentive for men to take the lump-sum option and "roll over" these funds into an IRA. See, for example, Giese (1986).

- ⁴ According to A. Bernstein (1986), TIAA life annuities were lowered 4½% for men and raised 4½% for women. Equal percentage changes were made for the 10-(2½%) and 20-(1%) year certain/life options while the joint-life choice was not changed at all. This type of unisex system is probably not actuarially consistent in the sense of leaving each sex with options that have the same expected value. In effect, Bernstein [1] recognizes this and advises his male readers to select joint-life and women to select the single-life annuity from an actuarial point of view. As explained, the MML-NWNL Unisex I system creates options which offer no such sex-specific actuarial advantages, except the lump sum.

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