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RISK CLASSIFICATION POLICY ISSUES—GENERAL

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1. Purpose of risk classification.

2. Risk classification system.

3. Characteristics for risk classification.

4. Effects of risk classification.

5. Processes of change in risk classification.

MR. HAROLD G. INGRAHAM: Risk classification, for our purposes, is simply the process of separating potential insurers into groups. The mechanism of classification is to group the risks by various pieces of information such as age or occupation. The purposes of classification include, but are not limited to, the determination of acceptability for insurance and the type, the amount, and the price of that coverage. The justification for classification is that risks are assumed to be placed in relatively homogeneous groups and this result benefits both insureds by promoting equity and the carrier by maintaining market stability and facilitating accurate estimation of costs.

Now in recent years, objections have been raised to some results of the risk classification process. The objections which have received the most publicity are those against redlining in property coverages, the use of pricing variables such as age, sex or territory in auto insurance and differing benefits depending upon the sex of the participant in pension plans. Many of these objections are consequences of emerging social attitudes or relative to the specific role of insurance in the economy. It is issues like these that we intend to explore this morning.

We are going to explore our subject using a question and answer format. I'll ask the questions and the designated kickoff panelist will respond. Then the other panelists will offer their comments. After discussing a few questions, I'll invite some questions or comments from the floor.

Before going any further, I should now like to recognize Mr. Robin Radcliff, President of the Institute of Actuaries. Robin expressed particular interest in the subject of risk classification policy issues, and Robin, we are extremely delighted to have you here, and we welcome your thoughts on any of the topics we are going to discuss.

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MR. INGRAHAM: We will direct our first question to Mr. Ripps: What classification variables are currently under attack? On what basis? Which of the critics' arguments are valid? Which are not?

MR. JAY C. RIPPS: It depends on the line of business when you ask the question what variables are under attack, but there is one common thread that seems to run throughout, and that is the issue of sex.

It might be worthwhile that in dealing with the first answer to that question to review briefly what some of the major arguments are in the area of sex discrimination and classification as violated with the notion that the insurance industry is discriminating between men and women in an unfair way. The first argument is that having different classes at different rates by sex violates the Civil Rights Act of 1964, especially Title VII of that Act. Title VII of the Civil Rights Act reads in part as follows:

> "It shall be an unlawful employment practice for an employer -
>
> > (i). . . to discriminate against any individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, sex, or national origin. . . ."

Then the argument goes if you make some distinction, particularly in an employee benefit plan, as between men and women in the rates or benefits that are provided, that is unlawful discrimination in the terms or conditions of the employment. Another argument is that separate rates by sex violate state Equal Rights Amendments (ERA's), and that has come up in Pennsylvania and will undoubtedly come up in other states where there are ERA's on the books. If we get a federal ERA, it will become quite clear that on a federal level different rates by sex will be attacked rather quickly.

The question might be asked, how do different rates by sex violate the Civil Rights Act or violate ERA's? The argument runs something like the following. Charging different rates or paying different benefits based on sex is discriminatory because the law requires that we maximize sex-neutral practices in general, and that charging men and women different prices for identical benefits simply violates the law that we ought to treat people equally. If you are after all paying certain pension or covering life insurance of a given amount as between men and women, the argument runs that although there are some differences as between groups of men and groups of women, individually, there are going to be such overlaps between them that we ought to be charging the same premium for both men and women. The second contention is that other variables such as physical conditions, smoking habits and so forth, are better predictors of mortality and morbidity than are simply differences in sex, and, therefore, those should be used instead of simply the sex variable.

Harold asked are these arguments valid. These arguments are certainly not without merit. As actuaries, we tend to dismiss them. It is useful to review what the Supreme Court has said in the only attempt to deal with this issue most directly, and that is that "The basic policy of the Civil Rights Act of 1964 requires that we focus on fairness to individuals rather than fairness to classes. Practices which classify employees in terms of religion, race, or sex tend to preserve traditional assumptions about groups rather than thoughtful scrutiny of individuals. . . . It is true that insurance

is concerned with events that are individually unpredictable, but that is characteristic of many employment decisions. Individual risk, like individual performance, may not be predicted by resort to classifications proscribed by Title VII." (Manhart Case, 1978) They said many other things, too, which muddy up the waters. Keeping in mind that it was in the context of a pension program and a contributory program at that, it is not quite clear that there is an issue here that deserves very careful scrutiny. Probably it will not be resolved by actuaries in any event. Hopefully, actuaries will be listened to from some perspective, but this will clearly be a political and judicial decision at the end.

Our contention is that pricing based on objective, statistically proven estimators of cost, is fair to the individual. This notion of individual fairness is one that we have not been persuasive on to date, and one that needs more attention. The whole question of what is fair in the context of insurance is a rather elusive one, and one where actuaries have a lot to contribute and where, perhaps, more needs to be done in the public debate.

A second argument, the first argument bear in mind is that unequal rates - unequal benefits violates the law. The second argument is that unequal rates or unequal benefits are simply socially unacceptable regardless of the law. In today's society we no longer think of equal as primarily men or primarily women, but primarily people, and it is unacceptable to differentiate between people on the basis of their sex. Also, a non-trivial argument in terms of validity, one that cannot be dismissed, but one that is hard to argue against one way or another, if someone feels that we should be maximizing sex-blind practices and treatment, okay, that is their position.

There are some other arguments that have been raised that are perhaps less defensible. A third argument is that sex is not a good predictor of mortality, or of morbidity, or of auto insurance experience. The argument here is that the differences in experience that have shown up are trivial primarily due to different social roles or to different habits. For example, women in the past have smoked less and, therefore, their mortality is more favorable than men's has been. The notion here is that sex is merely a surrogate for other differences between men and women as a group and should not be used as a predictor, rather we ought to rely on those things that sex is a surrogate for. The argument runs further that as differences between men and women blend, that is, as men and women take similar roles in society, as women assume more "stressful jobs" and as more women smoke, mortality and other differences between men and women will diminish.

The evidence is all on the other side. There are a number of places that show the trends in mortality between men and women, and all of the trends, at least those that deal with insured mortality, and I think in this instance these are figures that are population mortality, indicate that as the differences, the social differences and the health habit differences between men and women are coming closer together, mortality differences are diverging. That is the statistical evidence.

Difference in Expectation
of Life Between
Males and Females

	Age		
Year	Birth	25	65
1900	2.8	1.5	0.7
1920	1.9	0.6	0.5
1940	4.3	3.4	1.5
1960	6.4	5.6	2.8
1977	7.8	7.0	4.4

Source: Metropolitan Statistical Bulletin - April, 1980

I would also raise for you the experiential evidence. Try staying home, keeping house, running the family and whatnot; then judge for yourselves as to whether that is more stressful than coming to work every day and running an employment position. Therefore, do not accept the argument that as women move into the work force, their mortality will decline and trend towards men's mortality.

A fourth argument is the overlap theory. The overlap theory says essentially you compare groups of men and women starting at some age, say 65 because it has been raised particularly in the pension situation. You can see that although women on the average will live longer than men, if you try matching people by age at death, you will find that 80 to 85% of the women can be matched by age at death to 80 to 85% of the men. This argument it seems to me is a true statement, but in terms of insurance it is largely irrelevant and is rather specious. Unfortunately, it is also very appealing. We find that any time legislation is raised on this subject or any time there are speeches on the subject, this 85 or 80% match is inevitably raised. We have not been particularly adept at countering the argument. In fact, this is the argument that most frequently is raised when numerical arguments are raised on this subject. When people move away from simply the philosophical notion as to why sex based rates are inappropriate, they almost always cite this overlap argument that you are penalizing the 80% majority for the aberrant behavior or aberrant statistical experience of the 15% fringe. Unfortunately, this is a tough one to deal with. It has been propounded by a professor of economics which makes it that much tougher because it has some academic stature. Most economists, particularly the better ones, tend to agree that **it** is not terribly appropriate, but it is, nonetheless, a difficult argument to counter.

Finally, there are two other arguments that are somewhat related. One is that you ought not to classify people on the basis of factors which are beyond their control. You should not penalize someone because they are a particular sex, or because of some other factor that is beyond their control. And, related to that we ought to allow or encourage classification factors which have some incentive value. So that we ought to classify and pay higher benefits or use lower rates for people who, for example, do not smoke, who keep their weight down; keep their blood pressure under control. These are controllable and have some social utility in terms of using the insurance mechanism to foster what is viewed as socially productive behavior.

Those are the major arguments in the sex discrimination area and many of them tend to be repeated in the other variables under attack. I spent so much time on the sex variable because that is the one that is most pervasive and goes across lines and also receives most of the press and the attention. There are other variables under attack that I will mention briefly: age, territory and marital status in automobile insurance, territory and the whole redlining issue in property insurance, and physical handicap in life and disability insurance.

MS. MAVIS WALTERS: There are basically two arguments from the critics of classification. One is a legal argument which is somehow an interpretation of the Civil Rights Act. This is what many of the critics seem to be focusing in on, which is basically the individual as opposed to the class or the group or the average. The other argument is more an existential one and it is based on the supposed overlap theory. When you get right down to it though, they are really talking about the same kind of a thing. Basically, there really are different concepts, different principles or definitions of fairness that apply and should apply under different sets of circumstances. We have never made this perfectly clear, and this is one of the reasons why many of the court cases have gone the way they have gone. The word fair even in the Academy's Committee on Risk Classification was debated and discussed for many months. One thing that we missed in the beginning before we even published our paper on Principles of Risk Classification, was that there are valid differences and valid reasons why one should focus on different definitions of fairness under different circumstances.

Essentially, we can look upon the three or four distinctions that others have made before. One would be economic fairness, the idea of economic fairness in insurance as an economic enterprise is subject to the same kinds of economic principles that any other business would be. The economic fairness principle would tell us that you establish prices based on cost. The Civil Rights Act, of course, focuses on fairness to individuals rather than fairness to a class or a group of people. The third concept might be that of the broad concept of social justice which is probably looking more toward equal outcomes for society as a whole. Rights of perhaps certain individuals might have to be restricted in terms of fairness to society as a whole.

There are different reasons and different places where we should apply different concepts. I would suggest that in employment cases or many areas where we can judge at the time when the judgment must be made, whether that individual meets certain standards or whether that individual is capable of performing a certain act, it is perfectly right, valid and proper that you focus on the individual. In economic enterprises, for example, when you are talking about economic fairness in terms of pricing the insurance product, it is impossible to properly and perfectly assess the risk that an individual presents. Whether you are talking about auto insurance or life insurance or anything else, it is impossible to apply that same standard of fairness. The best we can do is to approach fairness to the individual by properly classifying those who are similar with each other and make the assumption that groups of similar insureds would have the same type of risk or would have the same measurable risk compared to those who are completely dissimilar.

The overlap argument that is used really gets down to the same sort of thing when you focus on these questions. They say because there is this overlap in terms of deference you should not apply different mortality rates to males and females. It repeats that underlying thrust, or underlying principle of civil rights which is you cannot and should not apply averages to individuals. Note, I have made reference to the overlap argument rather than giving it the credence others place in it, by referring to the overlap theory.

MRS. JEANNE CULLINAN RAY: Your point is well taken that there are different kinds of fairness. The difficulty is in attempting to come up with a single standard of fairness. What it boils down to is a decision that will rest with the courts or in the absence of judicial decision, with the legislature to decide what is, in fact, fair. As a practical matter, notions of fairness change based upon the economic and social conditions, maybe in the mores of the times. Certainly in 1854, when the Dred Scott decision was decided, it was considered fair by the vast preponderance of people in the population of the United States at that time. Perhaps by the year 2000 the notion of what is fair compared to the year 1854 will be so tremendously out of tilt I would have to suggest that the notion of fairness is a changing concept and where it is in 1981 is in the courts.

MS. LINDA LAMEL: Jay mentioned the Civil Rights Act of 1964 as part of the legal argument for examining classifications by sex and casting such classifications in a context of civil rights. The legal arguments I've seen presented in amicus briefs or in the cases that are going to court generally include a much broader legal argument, but one which has been unsuccessful in tempting the court to comment on. It is an additional and, possibly, a much stronger legal argument and that is it is a Fourteenth Amendment argument. It is the argument that sex should be a suspect category like race, creed and religion. Which means that if you are going to use it for any purpose, not just the employment purpose, the reason you are using that protective classification must be scrutinized in such a way that it can be determined that nothing else will work to accomplish the purpose you seek to accomplish and that that purpose is a valid one. So if the legislation is passed which says we are going to distinguish between men and women for X purpose and they can substantiate it, this is a legitimate purpose they seek to accomplish and using sex is the only way they can do it. That is what you have in the reverse discrimination cases where universities can use race as part of the way in which they determine their entering class because in this instance it is being used to correct a discrimination just as it was once used to create a discrimination.

The Supreme Court has not bought the Fourteenth Amendment argument. It is interesting that if the family protection act passes, fetuses will be protected until they are born and if they happen to be female they will lose some of those protections under the Fourteenth Amendment because the court refuses so far to see sex as a suspect classification. They have come close in the way they look at sex in Title VII in a number of cases, but they cannot quite make that step over the border and say yes if you use sex you have to be ready to submit that classification to strict scrutiny principles of the Fourteenth Amendment. One of the reasons ERA is promoted by many people is because, in fact, the Constitution has not been used by the courts to provide the kinds of protection that other people have received. The only thing that you can get before the court and get a decision on is under Title VII.

MS. WALTERS: I was involved in administrative cases in California whose subject was territorial discrimination and, in fact, there was a former commissioner retained by the California interest to discuss this issue of the constitutional standard and there was a great deal of discussion about it. The Fourteenth Amendment case would in one sense be more difficult to prove because the standards that an economic enterprise has to live up to are in one sense more reasonable, that is, insurers would stand a better chance of being able to defend risk classification systems based on provable statistically significant loss costs than they might under simply case law a la Manhart. A paper that was written not long ago by an actuary and a lawyer jointly (people from the Hartford Insurance Company) suggests that the Fourteenth Amendment interpretations do not require the defendant to prove that the course of action that he took was the best he could have taken to achieve his own purpose. He does not have to prove it was the best, but simply that it was a good business decision and in the case that you mentioned, the 1978 Supreme Court decision, warned in fact the lower courts not to substitute their judgments for the defendant's judgments in such matters.

MS. LAMEL: If it is effective under the business judgment classification, questions would be raised about things such as: you have the information on differentiation by sex, what do you have on the alcoholic driver?

MS. WALTERS: The answer then is privacy.

MS. LAMEL: Your point is interesting that the Fourteenth Amendment argument might be easier, but I do not know if the case would come up where business judgment would be the issue.

MR. INGRAHAM: I am going to direct the next question to Jeanne: A major area of debate is the use of sex as a classification variable. Critics tend to group sex with other factors included in the Civil Rights Act of 1964 and other civil rights legislation--i.e., race, religion, color, and national origin. Is sex different as a risk classification variable? If so, how?

MRS. RAY: Although sex appears in the statutory litany of Title VII of the Civil Rights Act as one of the items, which cannot be used by an employer as the basis for discrimination in the terms, conditions or privileges of employment, sex can be distinguished from race, religion, color and national origin for a variety of reasons:

(1) political reasons - Unlike race, sex was added to Title VII of the Civil Rights Act of 1964 primarily as a joke. As you may recall, the Civil Rights Bill met very stiff opposition in the House and the Senate from obstructionist legislators, who hoped to defeat the bill at all costs. In the Senate, filibustering was extensive and tempers were short. In an effort to demonstrate just how absurd they thought the Civil Rights legislative proposals were, several members of the opposition came up with idea of adding sex to the list of protected categories with the thought that Congress must surely reject a bill so pervasive as to guarantee equality in the terms, conditions and privileges of employment between the sexes - conjuring up the radical notion of perhaps such things as unisex rest rooms! The actual amendment adding the word "sex" was offered by Congressman Smith (D. Va.), a critic of the Civil Rights Bill, and commentators generally agree that the addition was designed to sabotage the Bill. No hearings

were ever held on the addition of the word "sex", which was perhaps indicative of the amusement with which it was regarded by most legislators back in 1964. In essence, sex was not taken seriously in the political arena as a protected group. Since **then** of course, sex has become the subject of numerous lawsuits under Title VII and is now being dealt with seriously as a discrimination issue in today's political climate.

(2) social reasons - Because women were not traditionally excluded from country clubs and other social gatherings, the public perception has been that women have not constituted a group which has been discriminated against and, therefore, was not a group in need of relief from discriminatory practices. Consequently, social considerations would not have caused those examining risk classification factors to view women as a disadvantaged group in need of any special economic consideration. Despite the fact that women were not afforded the vote until many, many years after white males and black males, women as a group were socially regarded as having been "mainstreamed" into American life and hence in no need of remedial legislative relief to equalize or enhance their status.

(3) legal reasons - Until 1960, legislation dealing with women was generally aimed toward according them a privileged or protected status seeking to limit their working hours, to give them adequate rest periods and rest/lounge facilities, and to relieve them of jury duty obligations. However, a variety of statutes written during the last 20 years have zeroed in on equal rights for women in the work place: the Equal Pay Act of 1963 requiring equal pay for equal work; Title VII of the Civil Rights Act of 1964, which requires equal terms, conditions and privileges of employment for similarly-situated male and female employees; and various state human rights laws requiring equal access to jobs and equal protection on the job for male and female counterparts. In view of the legal underpinnings for equal job treatment for men and women, sex as a risk classification factor has been called into question in a variety of lawsuits involving employer-maintained pension and welfare plans funded with insurance.

To date, the insurance industry has generally regarded sex as a valid risk classification factor, while rejecting race, religion or national origin as risk classification factors. Sex has been regarded differently by the insurance industry, at least in part, because of the absence of legislation requiring the industry to abandon sex as a risk classification factor. However, lawsuits spawned by EPA, Title VII, etc., as well as the introduction of such measures as ERA, H.R. 100 and the Women's Economic Equity Act of 1981 may well require the industry to change its practice of treating sex differently than race, creed, color or national origin.

(4) demographic reasons - Women constitute a majority of the American population and an increasing percentage of the American work force covered by group insurance plans, and of the insurance-buying public. Consequently, women as a group constitute a much larger class than minority racial or national origin groups. To abandon the use of sex as a risk classification factor based on sheer numbers alone would constitute a major step by a life insurance company.

(5) economic impact reasons - Because women do constitute such a large group of insureds and potential insureds, and because women, as a group, do significantly outlive men, as a group, the economic impact on the life insurance industry would be significantly greater, if it were to adopt unisex mortality tables (e.g., the cheaper male rate for annuities, and the cheaper female rate for life insurance), than if it were to adopt uniracial mortality tables (e.g., the cheaper white rate for life insurance). It is true that some years ago, as a matter of socially acceptable public policy, insurance companies abandoned race-segregated mortality tables. But this step was not as economically significant, because the number of minority group individuals eligible for and covered by life insurance was not so significant in relation to the overall insured population, and because in recent years mortality differences between the races have been narrowing leading many to embrace the theory that past mortality differentials were attributable more to socio-economic differences between the races (which during recent years have narrowed somewhat), rather than to inherent biological differences between the races.

(6) common practice reasons - Sex has been regarded by the insurance industry as a valid risk classification factor for many years, while race, creed, color and national origin have not. Industry practice has helped to cement the notion that this arrangement is proper. It seems to me very doubtful that the industry will change its practice in this regard in the absence of legislation or court decisions mandating the abandonment of sex-segregated mortality tables. While it does seem somewhat illogical to actuarially defend sex-segregated mortality tables, but to socially defend abandoning race-segregated mortality tables, the fact remains that it is a matter of common practice to do so. At present, sex-segregated tables are not perceived by the insurance industry as repugnant to public policy or popular notions of equality, while race-segregated mortality tables are. The insurance industry is built on the notion of fairly discriminating between various classes of individuals. The common practice of differentiating by sex in establishing life and annuity rates is simply an evidence of fair discrimination between groups with clearly differing life expectancies.

MR. RIPPS: Jeanne talked about practical differences. In an actuarial context we need to talk about some of those practical differences, too. For one thing, as a classification variable race differs from sex because it is far less definitely determinable. It is rather easy in most cases to determine sex; race, color clearly not. Another thing that we ought to consider as a difference from an actuarial point of view is that race really is not a particularly good predictor of mortality. We have some evidence, not that the insurance industry has done regrettably, but that the federal government has done on differences in mortality by socioeconomic class and then by racial groups by socioeconomic class and we find that except for the very poorest segment of the social strata, there really is not that great a difference between white and non-white mortality. So the argument could be made that race is rather a surrogate for other socioeconomic factors and not a predictor of mortality per se. And, therefore, since it is the non-poor who buy insurance and the non-poor who appear among insured populations that race is not a particularly good predictor of mortality whereas sex is.

MRS. RAY: Your point is well taken. In fact, that is one of the things that I did not mention and that is that racial distinctions seem to be diminishing while sexual distinctions seem to be increasing as was apparent from your chart. Why? Unfortunately, the answer to that question is not entirely clear. You can categorize people and say that they are in different socioeconomic groups and it would, therefore, appear that the economic differential is significant. Maybe it is health hazards, maybe it is availability of a golf course as compared to getting your fresh air sitting out on a fire escape breathing in laundry lines. It is true, however, that there seem to be changing factors and they are changing more readily in the racial arena than they are in the sexual arena because for the first time there has been greater access to economic parity on the part of minority group members. Nevertheless, there is a distinction and if the distinction exists, it ought to be factored into a table unless it is considered to be illegal to factor it into a table in which case it ought to be eliminated.

Looking at Title VII standing on its own (Title VII which was never intended by the drafters to apply to these esoteric situations), unless it is amended as interpreted, has to come up with the same application if you will to people of one race and people of one sex because the words are the same. And one of the scarier things sitting out there in the wings is the fact that the Age Discrimination in Employment Act (ADEA) has absolutely identical words to Title VII talking about the individual and talking about age. If those suits are commenced in the future, we have a much better chance of getting an amendment to ADEA to take into account risk classification by age differential, because that is the most basic differential in insurance, than we do in the case of Title VII.

MS. LAMEL: The point about the differences in race getting closer and the differences in sex getting further apart, and the reasons for that are precisely what bothers me as a regulator responsible for making sure presumably that rates are not unfairly discriminatory. Those statistics are suggesting that socioeconomic factors and economic class may, in fact, be much more relevant to mortality than race or perhaps sex. In fact, the economic status of blacks over any given decade of the last two, has shown substantial economic improvement. Albeit, it is not equal to that of where whites are, but it has improved substantially. The economic position of women has not improved. When you analyze who are the poor in this nation, who are the socially and economically deprived, you will find that the group that tends to be in the worst possible economic position are black women, substantially below either white women or black males. This lends some people to think that sex might be a factor in their current economic situation which is the factor in mortality. One is really a surrogate for the other. One being used in what some would claim is a socially unacceptable classification, sex, whereas something on economic status would probably be even worse because we have all kinds of problems with distinguishing between rich and poor in terms of any kind of legal protection.

Metropolitan Life Insurance does the studies on mortality based on various occupations. Last year's showed the mortality of a female attorney is more like the mortality of a male lawyer than a female teacher and suggesting in that instance that perhaps occupation is a very important factor determining mortality perhaps even more so than sex. Some of this information which suggests that although sex is presented as an ironclad distinguisher, there

is a substantial amount of information floating around out there, which does not necessarily confirm that notion. If you think that there may be something wrong with sex to begin with as a classification, plus you see more data suggesting that maybe the distinction is not so perfect, then that is when you can begin to raise a lot of questions about using sex as a classification.

MR. INGRAHAM: The next question is for Mavis. Many people seem to believe that using sex as a rating variable for auto insurance is simply a surrogate for mileage. Why not use mileage directly?

MS. WALTERS: Linda was just talking about surrogates in the area of life insurance, and as the question suggests, there are some people who suggest in the area of auto insurance, where we also make a distinction for some drivers based on sex, perhaps there are surrogates such as mileage. In auto insurance we do use as primary rating factors in determining how much someone should pay for their auto insurance the age, sex and marital status of the driver sometimes. We do not always make those distinctions. That is, we really only make a distinction based on sex for a minority of the driving population. Usually it is the youthful drivers. For the adult driving class in most instances, there is no distinction between the rates that would be paid by a man and a woman.

Many people, in fact, have suggested mileage to be the obvious surrogate. There have been studies which have been done on the subject. Several years ago, there was a committee of the NAIC that looked into the whole subject of automobile insurance classification. There were about a dozen of us who were appointed to an advisory committee to do a study on the whole subject of risk classification auto insurance. One of the things that we did look at was the whole question of mileage. And we looked at it to the extent that there were insurance statistics, but even more importantly, we looked at non-insurance statistics. Statistics that were put together by others, either social scientists or people who were analyzing highway statistics or those put out by DOT and found in very simple terms that mileage is not a surrogate for sex in terms of the insured population. Very simply, these studies that were done based on statistics in California show for certain mileage categories females had about half the accident involvement rate than males. In every single mileage category, without exception, female accident involvement rate was about half.

Now, is it not true that males on the average drive more miles? Yes, that is true if you just look at it in totality. Males generally have tended in the past to drive greater number of annual average miles than females. So if you were to have some sort of a very simple distinction between low mileage and high mileage drivers, you will pick up something, perhaps some of the real risk differences between young men and some women. But it will not be as accurate a predictor of accident involvement as the current system we have. So you lose something in that tradeoff. And many auto insurers have experimented in the past with a finer breakdown of mileage driven and use; it simply does not work. You cannot use as a rating variable a fine distinction of how many average annual miles you drive. The numbers that are reported would be reported to you by your drivers. You cannot validate it and you can rest assured the numbers that would be reported on an auto application form would bear little resemblance, for example, to the numbers that would be used in your deductions for your income tax purposes.

MR. INGRAHAM: The last question is for you, Linda. What is the regulator's responsibility vis-a-vis risk classification? And what should be the role of the regulator in the struggle between Title VII's emphasis on the individual and the insurance industry's traditional emphasis on the use of group averages?

MS. LAMEL:

Statutory Authority

State insurance departments can require that insurers and rating organizations file their rates and rate classifications with the commissioner. In the case of rate classification, the New York Superintendent can approve or disapprove as "unfairly discriminatory or violative of public policy." The classifications cannot "permit any unfair discrimination between individuals of the same class and of equal expectation of life, in the amount of payment or return of premiums, or rates charged by it for policies of life insurance. . . ." The Department has interpreted the statute to require that classifications be "reasonable, equitable and non-discriminatory." The latter term is misleading since discrimination between groups is the essence of insurance groupings.

The rates themselves are required to "not be excessive, inadequate, unfairly discriminatory, destructive of competition or detrimental to the solvency of insurers." Rates are filed with the Superintendent and deemed approved unless the Superintendent calls a hearing and demands that the insurer prove the rates filed. Rates which discriminate on the basis of sex can only be based on actual differences of morbidity and mortality that are determined by credible company experience, or studies of the Society of Actuaries or the New York State Insurance Department. Unisex rates for individual accident and health policies are permitted if applied to all like coverages.

For life insurance, the NAIC Model Act on unfair sex discrimination requires that rate differences based on sex be justified in writing to the commissioner and that they be based on "sound actuarial data."

Problems with the Data Base

The Task Force is studying data submitted by HIAA/ACLI in a statement dated April 9, 1979. Even this industry data suggests areas that need further study and relationships and trends that need to be explored more fully. The following examples illustrate the existing problems:

(1) A table of Social Security Disability data shows the ratio of female claim cost to male claim costs. The table uses the annuity value to determine cost i.e., the "present value of a continuous annuity to someone who becomes disabled at age X, has 6.5 month waiting period, and receives payments until attainment of age 65." Thus, although at age 32 the male incidence/1000 of disability is 2.320 and the female incidence rate/1000 is 1.980, the female to male claim cost ratio is 1.06 because of the annuity value for determining costs. Although women's disability claims are shorter and at lower salaries, the use of annuity value projects a different picture which emphasizes the higher incidence rate of women.

(2) A study of Metropolitan Life Insurance Company's employees showed a possible correlation between salary level and rate of disability claims. The crossover among females to a lower disability rate than males occurred at a younger age for higher **salaried** females and "indicates a possible point for further research." Age and salary may be more important variables in disability claims than is sex.

(3) The ratio of female to male claim costs for an individual disability policy in occupation Class I with a 0 Day Accident/7 Day Sickness Elimination Period Plan shows a decrease from 1960-1 to 1974-7. The reasons for this trend need exploration.

The problem with sex in auto insurance rates.

(1) Analysis of Statistical Issues.

Proponents of age, sex, and marital status classifications for automobile insurance generally rely on statistical evidence to support the use of these rating factors. In particular, many proponents argue that various groups of drivers defined on the basis of age, sex, and marital status characteristics typically develop different levels of average losses, and that these loss experience patterns, therefore, justify continued utilization of the characteristics for insurance pricing purposes.

An examination of recent studies of insurance classification practices raises serious questions about the strength of this argument. For example, the task force believes that evidence presented in a recent report by the Stanford Research Institute (SRI) demonstrates the weakness of class comparisons based solely on average loss experience. In that report, a statistical analysis of accident data reveals that "male drivers in California over the past nine years have had an accident involvement about twice as large as female drivers." The distribution of individual losses shows, however, that "approximately 28% of the males have an accident likelihood lower than the female average whereas 13% of the females have an accident likelihood above the male average."

These results suggest to the task force that while statistical average may be suitable for calculating classification price differentials, they are insufficient to identify the degree of homogeneity or separation (i.e., the absence of significant overlap among loss distributions for various classifications) present in the rating system. Consideration of these criteria is essential to the proper design of an equitable classification system from a statistical **perspective**

The task force also believes that available studies raise questions about the effectiveness of age, sex, and marital status groupings in terms of classification accuracy. The SRI report estimates that, based on rate differentials, even the most detailed rating plans now in use account for only about 20% of the variation in expected losses among individuals, with about 12% of the explained variation being attributable to age, sex, and marital status classifications. These estimates are supported by a similar study done by the Massachusetts Insurance Department, which calculates the **efficiency** of a three-class rating plan based on age and sex to be between 10% and 13%.

These studies have important implications for the evaluation of existing rating classifications. The SRI analysis of loss distribution parameters demonstrates that proper evaluation of individual classifications must rely on more than simple comparisons of average losses. In addition, the current levels of rating effectiveness suggest the need for improvement of the accuracy and efficiency of insurance classification systems.

The task force recommends several actions to deal with these concerns. To combat potential unfair discrimination in the establishment of classifications and rate relativities, regulations should be adopted which require that rating plans be based on a reasonable classification system, on credible loss information or relevant external data, and on sound actuarial and statistical principles. As a further aid in this area, the task force recommends regulations authorizing the establishment of data reporting guidelines and procedures, so that the regulator can obtain sufficient information to properly evaluate rates and classifications.

The task force believes that both regulators and the industry should make a firm commitment to work for improvements in classification procedures. Regulators should encourage positive experimentation in the development of alternative rating criteria, and the industry should collect and disseminate more detailed information with which to evaluate both new and existing classifications. The task force recommends development and study of alternative rating classifications which may provide for more accurate risk assessment and which may encourage more meaningful competition to the benefit of both consumers and the industry.

(2) Public Policy Considerations.

In making these recommendations, the task force does not mean to suggest that improved statistical methodologies and classification refinements will satisfy all conderns about rating practices. It is important to recognize that statistical parameters often fail to address important social and public policy considerations regarding the rating process.

For example, a statistical correlation between a particular characteristic and expected loss may be sufficient justification from an actuarial viewpoint to use that characteristic in a classification plan. In the case of some factors, however, statistical correlations may arise not because of a direct functional relationship, but rather because of indirect or secondary linkages with unidentified factors which are related to insurance losses. Thus sound public policy requires that classification criteria meet a higher standard of relationship to loss than simple correlation. For purposes of this report, the task force has chosen to focus on several criteria which it deems desirable in a classification system; these factors are controllability (incentive value), clarity (consistency, simplicity, and causality), and social acceptability.

Use of sex-based disability rates are approved by regulators, despite the problems presented above and the admission of HIAA/ACLI that "there is some evidence that the extra female cost diminishes for higher deductible [policies], as well as at the older ages, . . . there is no uniform data base. In fact, there is not sufficient plan uniformity among companies to attempt a broad intercompany study." Some regulators show increasing discomfort with the data they receive.

Is the data reliable?

The fact that rates are higher for women insureds with accident and health policies presents a challenge to regulators similar to that in disability rates and even automobile rates: Is the actuarial data used to justify these differentials adequate and reliable? There are several reasons to suspect that they are not.

(1) A recent study revealed that greater longevity of women "results from environmental and cultural factors that compromise the survival of adult males. Such factors include occupational hazards, accidents, cigarette smoking and alcohol abuse, all of which afflict more men than women. . . ." From an article by Drs. David T. Purtilo and John L. Sullivan in the American Journal of Diseases of Children - New York Times, January 29, 1980.

(2) A study of high-cost patients published in the New England Journal of Medicine, revealed that "The sex of the patient was not important in distinguishing high-cost from low-cost patients."

(3) A study of how people were treated who went to the same doctors with the same symptoms revealed that sex was the only variable which accounted for a difference in the degree and frequency of treatment. (AMA Journal)

(4) Voluntary surgery such as hysterectomies reveal a significant rate of non-confirmation when a second surgical opinion is sought. (Testimony at hearing held by New York State Insurance Department on second surgical opinions.)

(5) Health care costs for women reveal shorter, more frequent illnesses. (Public Health data)

(6) Voluntary, unhealthy personal habits such as alcohol and tobacco use appear to be more relevant to instance of high-cost illness than sex. (New England Journal of Medicine)

Regulators and legislators are thus confronted with pressures from employers, employees, women and insurers to either change the rating structure or leave them be. The recent decisions require a review of materials such as those cited above, the currently available data base, and the social acceptability of using sex as a rating classification. The outcome could have a significant effect on the health care costs of employers, the structure of health care benefits, and the employment opportunities of women.

Role of the Regulator in Title VII vs. Insurance

TIAA/CREF asserted that because women as a group live longer, the periodic payment to a female annuitant should be less than for her male counterpart. The Court in Spirt held that TIAA/CREF was subject to Title VII requirements against discrimination by sex in the terms and conditions of employment and that the use of sex-based mortality tables which resulted in lower periodic payments for women were in violation of that statute.

In light of the Manhart and Spirt decisions, TIAA/CREF has filed with the New York State Insurance Department a new form which uses a merged gender mortality table as the basis for determining the amount of periodic annuity payments to be received by annuitants. TIAA/CREF made the change as a

result of the judicial view that "the civil rights of the individual in an employee benefit plan must prevail over the insuring principles that classifies individuals by groups for risk-sharing purposes." This will raise an individual woman annuitant's monthly benefit by 13%.

An employer may be held to the Manhart standard of individual employee rights even if the insurance plan is voluntary because it is a benefit and privilege of employment. In a recent case, a deferred compensation plan with an annuity option was offered to employees in Arizona; the annuity payments were subject to sex-based mortality tables. The state plan selected the approved funding media and thus precluded an employee from buying his annuity in the "open market" (the means suggested in Manhart). The Court held the use of sex-based tables to violate the principle established in Manhart.

MR. INGRAHAM: I really want to get the audience involved now. Who would like to be the first to talk about anything that you have heard this morning?

MR. MICHAEL COWELL: In the whole discussion relating to sex and why the difference, nobody has mentioned directly that the fundamental reason that women live longer than men is simply a biogenetic difference. There is ample evidence that the distinction between the male and female is in the 24th chromosome pair, the matched pair in females and the unmatched pair in males, and it is this difference that introduces an inherent biological weakness in males. It has been with us not since 1978 or 1964, but has been with us since we evolved from an earlier order of primates. In fact, to some extent it may even be in the primates. To ignore it or pretend it is going to go away or to think that we can legislate around it or legislate out of it is futile. You cannot correct what is a fundamental biological difference. I am not denying the fairness argument or the legal arguments and I am here because I am interested in the public policy aspects of this subject, but I simply think that this is something that cannot be ignored.

MS. LAMEL: I am also Jewish and I have been on the other side of a genetic superiority argument. As a matter of fact, arguments of genetic superiority of one group of people as opposed to another group of people are indeed as old as mankind itself and in almost every instance usually immediately preceded the demise of the differences between the two groups. So if we are at the stage of the genetic argument, I am very optimistic about unisex rates at least as much so as Jeanne.

But to get to specifics on it. I found a report in the New York Times by a pathologist and a pediatrician published in the American Journal of the Diseases of Children in which they had found isolated specific factors which they felt identified greater immunological differences in women which gave us superiority and it was, in fact, genetic in being able to combat certain kinds of attacks on the body as compared to men. But, they concluded that the greater longevity of women results from environmental and cultural factors that compromise the survival of adult males. Such factors include occupational hazards, accidents, cigarette smoking and alcohol abuse all of which afflict more men than women. So that despite this genetic superiority, there is a need to question why women are sicker. The morbidity rates on some A & H and some disability policies are twice as much for women.

MR. RIPPS: That is a pretty good indication to you as to why it is not a very good idea for actuaries to argue the question of sexual mortality differences, or differences in race on a scientific basis. Number one, we are

not prepared as a profession to discuss the question on that basis and number two, I don't know where it leads you. It is strategically better for the actuarial profession to ignore by and large in its public statements and public testimony questions of causality and to focus on the questions that are really within our province to deal with. In particular, it is this notion of what is fair in the context of insurance that we ought to be focusing on by and large. Mavis raised that issue before. It is in our interest to try and persuade the public, the legislators and the judges that the questions of fairness should focus on actuarial values, not on results, not on state benefits, but the value of benefits or the value of protection received. The second thing that we ought to be focusing on is what some of the impacts of these restrictions can be because restrictions on classification are generally viewed as freebies. The key is that you have to make sure that we are clear in terms of the financial and other impact restrictions and classification practices would have on insurance coverage. Such things as availability, new knowledge, new conditions and such things as perhaps an overall increase in price if you have insurers assuming additional risks.

MR. LAMBERT TROWBRIDGE: The question of what is fair in insurance depends on what kind of insurance you are looking at. I classify insurance for this purpose into five classifications and what is fair in each of these classifications is different. First is individual insurance where it is clear that the individual buys voluntarily, then the general principle that equals are treated equally and unequals are treated unequally is as hard to argue against. Now a second category is individual insurance where there is some duress that persons have to buy, for example, by legislation like automobile insurance. When you get into duress insurance, certainly the questions of social acceptability come into it more than they do in the situation where it is truly voluntary. Now a third class and a fourth class are two different forms of employee benefit plans. When the employer instead of the individual starts paying the premium or part of the premium, then that certainly changes the idea of individual equity. There is the kind of employee benefit plan that uses defined benefit principles and lets the employer contribution come out where it may, and equity is defined in terms of the employer contribution, and this second kind is, in effect, following the equal pay for equal work principle. My fifth classification gets down to social insurance which is an employee benefit plan, too, but which has got some other characteristics.

Now there is one further point I would like to make and it comes up from something that Jeanne said earlier. You can follow an equal pay for equal work principle, get into something like a money purchase plan, and you will have different benefits. Or you can follow the principle of equal benefits in which case you will have unequal employer contributions. You cannot follow both principles at the same time. The idea that you can legislate out all the differences just does not exist. There is just no question that a defined benefit pension plan that gives women the same benefits as men violates the equal pay principle because women are getting paid more than men for that same work. Now I do not think there is anything wrong with either of these principles, but we must recognize that you cannot do both at the same time.

MRS. RAY: The reason I said that the Equal Pay Act demanded equal benefits is that the term compensation or equal pay is construed by the courts to include fringe benefits. When you get down to what kind of fringe benefits

have to be equal, of course, one possibility is that we could have lump sum distributions available. In individual annuity benefits where the differential in periodic payments is such that there is a lower payment for women, you then have a situation where the female employees could take a choice. Then you are back in your first category, or if you will, of a voluntary choice.

MS. LAMEL: Jeanne, would the insurer rather do lump sum payments than pay equal periodic benefits payments?

MRS. RAY: Traditionally, I think certainly we did not want to lose the money, but in today's market I think there is a favorable tax benefit available to lump sum distributions particularly under pension plans that little would be attracted without offering lump sum distributions, particularly to your higher echelon executive. It is so much more favorable than would be an annuity payment, but it is very tough to sell a case today without having a lump sum feature. We would rather sell the plan than not.

MR. IRVING PLOTKIN: The person who propounded what you identified, Mr. Ripps, as the overlap theory was not an economist, but rather a person trained in statistics and I always looked at him as an actuary. At least he is closer to that field than economics. But if you were to respond purely as an actuary and did not use any cop out about we cannot tell black from white and also were to take the proposition that under all practical and all useful classification systems one can distinguish a cost difference, an expected cost difference on a racially measurable characteristic, how would you, testifying as an actuary, meet that question. Should not the actuary be in favor of the rate that makes that distinction.

MR. RIPPS: If you agree that there are statistically valid demonstrated differences by race, yes, then I would argue that they be allowed. I would also follow that by saying that those things **do** not exist. Therefore, the fact that they are not allowed is just not terribly significant from an actuarial point of view today.

MR. JOSEPH M. DICKLER: I think the regulators in particular should realize that we have a very large, complex system that has been built up over many years. You cannot change them very quickly, and you will never achieve fairness. Right now, the advocacy is male vs. female, and I support the female position to a large extent. But what will it be tomorrow or the next day. Is somebody going to tell us how to classify insurance risks so we can get about our business and not have to change them all the time?

MS. LAMEL: That opens an area which I suspected is the underlying greatest concern for the industry overall, not just the actuaries, but the industry overall. Regulators in a state like New York would certainly need something upon which to direct a change in what is being done. The regulators are beginning to move into one of the doors of the industry's operation which have heretofore been closed. We do not get into underwriting judgment, we do not get into telling a company what rating classification to use or not

use, or who to sell to, or when to sell or where to sell. To a very large extent, it is a very isolated area from regulatory scrutiny and I could see where the industry would be very, very concerned if we had a law passed in every state, like we now have in Connecticut. Connecticut passed a law a couple of years ago requiring **insurer's** to file their underwriting manuals. The industry quite rightfully wants to protect that policy both for competitive reasons and because it is now an area which is not subject to regulation, they do not want it to become subject. Rating classification and justification for rating classification is tied in with that notion of judgment to be made about how a particular insurance company conducts its business and the industry does not want regulators to go in there. And they do not want to go in there except that when we get hit with the advocacy groups and the legislators and elected officials telling us why aren't you doing something about this situation.

MS. WALTERS: Yes, one quick comment on this and I am not going to put words in Linda's mouth, but just let me make a statement that, yes, I agree. Insurance companies and the private sector, in general, does not want the regulators, whether it is the commission, whether it is a board, or whether it is an individual regulator substituting their judgment for the judgments made by the private sector or private enterprise which has got their money at risk.

MS. LAMEL: Even systems that are subject to competition and change occasionally need a little prod, and that is what you are getting from the public.

MR. INGRAHAM: One final comment from you, Jay, please. How can actuaries better and more effectively engage in public policy discussions of these things. What more can we do?

MR. RIPPS: It is quite clear that the level of misconception and the level of ignorance is rising and the level of rhetoric is increasing. The extent to which actuaries have brought knowledge and perception in this discussion is most unimpressive. How can we do better? I would suggest a number of things. Number one, there are occasions for public utterances: letters to the editor, letters to business publications and whatnot. When will we clear misstatements: things like the overlap theory, things like insurers who capitalize and generally charge women more? These statements are made over and over again and the difficulty is that when we don't respond, there is some notion in the public that, okay, it must be true. The second thing is that there are opportunities for legislative testimony, and as we get more legislation, which we will, they will increase. There are, unfortunately, opportunities for court testimony because there will continue to be court challenges to our risk classification practices. Further, there are opportunities for actuaries to become involved in professional and industry committee work: the Academy has a committee on risk classification which is quite active, the ACLI has a similar committee, the HIAA also, and the Casualty Actuarial Society has similar kinds of activities. And, it is up to us to stimulate our employers whether they be consulting firms or insurance companies or other to become involved in a corporate way.