BY THE COMPTROLLER GENERAL

Report To Senator Orrin G. Hatch, Senator Lowell P. Weicker, Senator Nancy Landon Kassebaum, And Senator Paula Hawkins, United States Senate

OF THE UNITED STATES

Economic Implications Of The Fair Insurance Practices Act

The proposed Fair Insurance Practices Act (unisex insurance) would prohibit distinctions based on race, color, religion, sex, or national origin in pension plans and insurance contracts. Because of the unknown reactions of insurance companies, pension plan sponsors, and state insurance regulators, the precise effects of the bill are uncertain. However, GAO does believe that the bill would have substantial economic effects, including potential unfunded liabilities for life insurance companies and pension plans which could cause some life insurance companies to become insolvent. The bill would also impose increased administrative costs, create financial redistributions among employees and policyholders, and have generally modest effects on price distortions and economic efficiency.

GAO concludes that the short-run effects of the bill on increasing administrative costs and insolvencies would be particularly significant The transition period called for in the bill (between the date of enactment and the bill's effective date) is also not feasible. Therefore GAO recommends that the Congress consider extending this period from 90 days to at least one year and exempting existing individual insurance contracts from the provisions of the bill

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COMPTROLLER GENERAL OF THE UNITED STATES
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The Honorable Orrin G. Hatch
Chairman, Committee on Labor
and Human Resources
United States Senate

The Honorable Lowell P. Weicker
United States Senate

The Honorable Nancy Landon Kassebaum
United States Senate

The Honorable Paula Hawkins
United States Senate

On March 7, 1983, you requested that we investigate the economic implications of S. 372, the proposed Fair Insurance Practices Act. In particular, you asked that we review how cost considerations vary by type of insurance and that we consider what effect unfunded liabilities in pension plans would have on pension plans' ability to meet the minimum funding requirements of the Employee Retirement Income Security Act (ERISA). In subsequent discussions with your offices, it was requested that we review six studies of the economic implications of the bill. As we indicated in our letter to you of March 25, 1983, we agreed to review existing studies of the economic implications of the proposed act, but that due to time and data limitations we would not in general develop specific cost estimates of our own.

S. 372, the proposed Fair Insurance Practices Act, would prohibit distinctions based on race, color, religion, sex, or national origin in pensions and insurance. Debate about the bill has focused primarily on its effect in eliminating sex distinctions, which are commonly used for ratemaking and benefit determinations in pensions and in auto, health, disability, and life insurance. The bill would require that unequal insurance contracts of equally situated males and females be equalized either by equalizing premiums on contracts with equal coverages or by equalizing coverages on policies with equal premiums. If coverages were equalized, the bill would require, on current

contracts, that this be done by "topping up" the lower coverage to equal the higher without lowering the higher coverage. Similarly, pension contracts would have to be equalized by topping up payments to the sex receiving the lower payments to equal those to the sex receiving the higher payments without lowering the latter's benefits. The bill would also require that maternity costs be covered on the same basis as costs of other medical conditions in all health and disability policies.

OBJECTIVES, SCOPE, AND METHODOLOGY

We reviewed the six studies which you asked us to review, as well as other relevant studies of the subject, and assessed their methodologies and assumptions. We also obtained the views of the Pension Benefit Guaranty Corporation (PBGC) on the bill's effect on PBGC and on the pension plans which PBGC insures. We took note of information and analyses provided by the insurance industry, pension plan representatives, advocates of S. 372, and independent analysts, and incorporated them in the report as we thought appropriate. While we are aware that substitute versions of the bill have been circulated in draft form, we focus our analysis, as you requested, on the bill as introduced.

Important social policy issues are raised by S. 372. The Congress must consider both the social gains associated with furtherance of the principle of equal treatment as put forth in S. 372, and the possible costs which would accompany its enactment. Our review did not attempt to weigh these costs and benefits. Instead, we have attempted to clarify the kinds of economic effects we would expect to accompany the bill's enactment and both review and critique those studies that attempt to estimate the monetary costs associated with its passage. Our review of the bill's effects was conducted from March 1983 to October 1983. We also have updated our analysis to reflect information made available to us since then. We performed our review in accordance with generally accepted government auditing standards.

We believe that there would be four major categories of economic effects: unfunded liabilities, redistributive effects, economic efficiency effects (including adverse selection effects), and administrative costs. However, in many cases it is impossible to say what the consequences of the bill would be because they would depend on the actions taken by insurance companies, pension plan sponsors, and state insurance regulators in response to the legislation. Our review analyzes incentives that would operate on the affected parties and the actions that could be expected in response to those incentives. We also identify possible outcomes. But due to the uncertainty that exists about the actions the affected parties would take, we cannot make exact

estimates of the bill's effects. In those cases where we make estimates or analyze the estimates of others, we identify the various assumptions which have been made. The detailed results of our review are presented in appendix I. The following summarizes those results:

UNFUNDED LIABILITIES

Unfunded liabilities are created (or increased) when liabilities of pension plans or insurance companies are increased without any corresponding increase in assets. Based on our adjustments to the estimates in existing studies, we believe that the bill would be likely to increase unfunded liabilities by $7.7 to $15.1 billion in pension plans. The actual liabilities for pension plans might be substantially lower if, as has been reported to us, a substantial number of pension plans have already switched to unisex benefits since 1977, when the data on which this estimate is based were compiled. Due to the Supreme Court's decision last summer in Arizona Governing Committee v. Norris, plans are now required to pay all benefits based on future earnings on a unisex basis. In complying with this decision, many plans have apparently chosen to pay benefits based on past earnings on a unisex basis as well. However, we have not verified the extent to which this has occurred. Life insurance companies would have increased required reserves of $8.3 to $17.1 billion. Total unfunded liabilities would be between $16 and $32 billion. These unfunded liabilities would represent both increased costs to insurance companies and pension plans and increased benefits to policyholders, retirees, and employees. In the long run, the effect of these unfunded liabilities would be primarily to redistribute income from one group of policyholders and employees to another.

In the short run, however, the unfunded liabilities could cause some serious disruptions, primarily insolvencies by life insurance companies. Pension funds are allowed to amortize their unfunded liabilities over many years (30 years in the case of private defined benefit plans), so that the short-run effect is moderated. Insurance companies, on the other hand, must assemble reserves immediately to fund their increased liabilities. Those firms which lack sufficient assets would become legally insolvent. If the companies were able to equalize current policies by increasing premiums for female policyholders, it is possible that no insolvencies would take place. Although the bill authorizes compliance through increases in premiums on current policies, it is not clear whether attempts at such premium increases would survive legal challenge. If raising premiums proved difficult, some insurance companies would probably become legally insolvent. For pension plans, the size of the unfunded liabilities created would vary from plan to plan, but the additional pension

plan liabilities created by the bill would raise annual costs by 1 or 2 percent in the aggregate. In view of this small average increase in annual costs, we believe that few plans would have difficulty in meeting ERISA's minimum funding requirements solely as a result of the enactment of this bill.

REDISTRIBUTIVE EFFECTS

Redistributive effects are shifts of money, or financial transfers, from some people to others. S. 372 would cause significant redistributive effects to take place among policyholders as prices rose for some policyholders and fell for others, and among employees as benefits rose for some and fell for others. We examine the possible pattern of these redistributions, but do not assess their desirability, as this is a congressional policy determination.

The size of these transfers would depend on the extent to which insurance companies adjusted to the enactment of S. 372 by making more extensive use of rating factors other than sex and on how effective these adjustments were. We believe that no one can predict the precise pattern of changes in industry rating practices that would occur in response to S. 372, and therefore the size of the transfers the bill would produce can also not be predicted.

For example, we believe the American Academy of Actuaries' estimate of the size of these transfers in auto insurance (that women's auto insurance premiums would rise by $700 million) may well be too large because it assumes that other rating factors would not be used more extensively. On the other hand, other estimates, which suggest that substituting alternative rating factors in auto insurance would be so extensive and effective that women's premiums would actually fall by $1 billion, seem to overstate the effect that alternative factors would have.

ECONOMIC EFFICIENCY EFFECTS

Economic efficiency effects are gains or losses due to changes in how cost-effectively the economy satisfies consumer demands. Insofar as the bill caused prices of insurance to diverge from the costs of providing insurance, it could reduce economic efficiency by inducing consumers to buy less cost-effective insurance coverages. Those who were charged a price less than the cost of their insurance would tend to buy too much, while those who were charged a price greater than the cost of their insurance would tend to buy too little. This effect is similar to what is referred to as "adverse selection." If those who are charged less than the cost of their insurance become a relatively larger fraction of the insurance pool, the insurer's costs rise. This process can lead to market dislocations, such as insurers faced with rising costs leaving the market.

The extent to which an economic efficiency loss occurred would depend upon how accurately prices currently reflect costs, how much prices were changed by the bill, how much people changed the amount of insurance they buy in response to price changes, and what value people placed, in the case of overcharges, on the insurance no longer purchased. All of these factors are uncertain, but we would not expect this effect to be large relative to the size of the bill's other economic effects. It is also possible that the bill could have positive efficiency effects if, by substituting more controllable risk factors for sex, people were induced to decrease their risk exposure so as to reduce their insurance premiums (e.g., by driving fewer miles). We also would not expect this effect to be large. The bill would also probably induce some changes in the options which retirees selected in their pensions. Women would be more likely to select life annuity options, while men would be more likely to select lump sums, early retirement, and joint and survivor options.

ADMINISTRATIVE COSTS

The bill would lead to substantial administrative costs to revise existing policies and prepare new ones. The American Academy of Actuaries has estimated the transitional costs of revising existing policies and preparing new ones to be $1.3 billion. This estimate is based on the assumption that the transition period, between the date of the bill's enactment and its effective date, would be 12 to 18 months, rather than the 90 days specified in the bill. The Academy believes that the 90-day transition period would not be feasible. Most of these increased administrative costs would be due to changes that would have to be made in existing life insurance contracts. This estimate does not include costs for state regulatory agencies and for verifying new risk data. Otherwise, while this estimate is based on limited data, we see no reason to believe it is too high or too low. It represents somewhat less than 4 percent of one year's normal administrative costs for the industry.

CONCLUSIONS

We believe that S. 372 would have significant economic effects, though the exact extent of those effects is impossible to estimate. The bill would create substantial unfunded liabilities for pension plans and life insurance companies, along with corresponding increased benefits for employees, retirees, and policyholders. While we believe that most pension plans would be able to manage their increased liabilities with little difficulty, life insurance companies, which must assemble additional reserves immediately to back their increased liabilities, would face greater difficulty. A few legal insolvencies could result. We believe that this short-run effect on life insurance companies would be the most serious adverse effect of the proposed act.

The exact extent of the redistributive effects is impossible to estimate. We believe the redistributive effects would be significant. However, we did not assess their desirability, as this is a congressional policy determination central to consideration of the proposed legislation. Both positive and negative efficiency effects would probably occur. Their size is uncertain, but would probably be smaller than the other effects of the bill.

The administrative costs would be substantial, even if the transition period were as long as 12 to 18 months. We believe that attempting to comply within the 90-day transition period specified in the bill would increase costs further, and would not be feasible in any case. While it is not clear what the minimum feasible transition period would be, we believe that any transition period less than 1 year would probably not be feasible. Moreover, the likely failure of firms to meet the 90-day deadline might generate unnecessary litigation. Most of these administrative costs could be avoided if the bill did not apply to existing individual insurance contracts.

MATTERS FOR CONSIDERATION BY THE CONGRESS

To reduce the adverse effects of potential insurance company insolvencies, to make compliance with the bill more feasible, and to reduce the administrative costs of implementing the bill, we believe the Congress should consider

--eliminating the bill's applicability to existing individual insurance contracts, and

--increasing the transition period for implementing the legislation to at least 1 year.

In presenting these matters for consideration, we take no position on the congressional decision regarding enactment of the legislation.

AGENCY COMMENTS

We received comments on this report from the Department of Labor (DOL). These comments are attached as appendix III. DOL believed that our adjustments to the estimates made in its report were appropriate. DOL noted, however, that some defined benefit plans may not have to top up coverages under S. 372. We agreed with DOL and have revised our report to reflect this point.

As we arranged with your offices, copies of this report will be sent to other interested parties and will be made available to those who request them.

Charles A. Bowsher
Comptroller General
of the United States

Enclosure

Contents

ABBREVIATIONS

AAA	American Academy of Actuaries
ACLI	American Council of Life Insurance
DOL	Department of Labor
ERISA	Employee Retirement Income Security Act of 1974
NICO	National Insurance Consumer Organization
NYSTRS	New York State Teachers' Retirement System
PBGC	Pension Benefit Guarantee Corporation

ECONOMIC IMPLICATIONS OF S. 372

INTRODUCTION

On March 7, 1983, Senators Hatch, Weicker, Kassebaum, and Hawkins requested that we investigate the economic implications of S. 372, the proposed Fair Insurance Practices Act. In particular, they asked that we review six studies of these economic implications[1] and that we look at how cost considerations would vary by type of insurance. They also asked that we look at the economic implications of the vested unfunded liabilities imposed on pension plans, and the effect this might have on the ability of pension plans to meet the minimum funding standards of the Employee Retirement Income Security Act (ERISA). As we indicated in our letter of March 25, 1983, we agreed to review the existing studies on the economic implications of the proposed act, but that, due to time and data limitations, we would not in general develop specific cost estimates of our own.

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[1]The six studies which they specifically asked us to review are as follows:

(1) American Academy of Actuaries (AAA) study presented in testimony before the House Energy and Commerce Subcommittee on Commerce, Transportation, and Tourism, May 20, 1981, and revised in testimony presented to the same subcommittee, February 24, 1983.

(2) Department of Labor (DOL) study, "Cost Study of the Impact of an Equal Benefits Rule on Pension Benefits," Draft, January 1983.

(3) American Council of Life Insurance (ACLI) study, "Estimate by American Council of Life Insurance of the Increase in Annual Costs of Pensions Plans that would be Occasioned by the Enactment of S. 2204 [equivalent to S. 372]," November 24, 1982.

(4) New York State Teachers' Retirement System (NYSTERS) study, "Affidavit of Albert Alazraki, Actuary of the New York State Teachers' Retirement System, in the case of Hannahs v. New York State Teachers' Retirement System, No. 78 Civ. 2451 (S.D.N.Y.)," October 30, 1981.

(5) D-3 Advisory Committee report, "Private Passenger Automobile Insurance Risk Classification," Report of the D-3 Advisory Committee to the Task Force on Rates and Rating Procedures of the National Association of Insurance Commissioners, May 1979.

(6) 1979 SRI report, "Choice of a Regulatory Environment for Automobile Insurance," SRI International [formerly Stanford Research Institute], May 1979.

The proposed Fair Insurance Practices Act

S. 372, the proposed Fair Insurance Practices Act, would prohibit distinctions based on race, color, religion, sex, or national origin in the premiums, coverages, benefits, and conditions of insurance and pensions in both new and existing contracts. The primary effect of the bill would result from its prohibition against using sex-distinct actuarial tables in pensions and insurance. The bill would require that unequal insurance contracts of equally situated males and females be equalized either by equalizing premiums on contracts with equal coverages or by equalizing coverages on policies with equal premiums. If coverages were equalized, the bill would require, on current contracts, that this be done by "topping up" the lower coverage to equal the higher, without lowering the higher coverage. Similarly, pension contracts would have to be equalized by topping up payments to the sex receiving the lower payments to equal those to the sex receiving the higher payments, without lowering the latter's benefits. The bill would also require that maternity costs be covered on the same basis as costs of other medical conditions in all health and disability policies.

Objectives, scope, and methodology

We have reviewed the six studies which we were asked to review, as well as other relevant studies of the subject, such as Donald Grubbs' critique of the DOL study, an ACLI study on unfunded liabilities of insurance companies, a National Insurance Consumer Organization (NICO) analysis of price changes in mileage-rated unisex auto insurance plans, and a study by Milliman and Robertson on unfunded liabilities of state and local government pension plans. We assessed the methodologies and assumptions used in these studies. We also assessed their consistency with information from a variety of sources, including interviews with industry representatives and independent actuaries, reports on the industry by various organizations, and statements about the impact of the bill by various parties. We also obtained the views of the Pension Benefit Guaranty Corporation (PBGC) on the bill's effect on PBGC and on the pension plans which PBGC insures. While a variety of amendments to the bill have been circulated in draft form, we restricted our analysis to the bill as introduced.

Our preliminary analysis indicated that the topping-up provision of the bill would create unfunded liabilities, particularly in pensions and life insurance policies. It also appeared that the price changes required by the bill would have redistributive effects and economic efficiency effects. Finally, it

appeared that the bill would impose administrative costs on insurers and pension plan administrators, as well as on state insurance regulators. We accordingly sought information from the sources listed above on the effects of unfunded liabilities and on the nature and extent of redistributive effects, economic efficiency effects, and administrative costs in pensions and the various affected lines of insurance. Our review of the bill's effects was conducted from March 1983 to October 1983. We also have updated our analysis to reflect information made available to us since then. The review was carried out in accordance with generally accepted government auditing standards.

It is in many cases impossible to say what the consequences of the bill would be. The consequences would depend upon the adjustments that insurance companies, pension plan sponsors, and state insurance regulators made in response to the bill's enactment. Since no one knows with certainty what these adjustments would be, all of the studies which have been done on the bill's impact have been forced to make assumptions about the pattern of adjustments. The estimates of the bill's effects contained in these studies often depend critically on the assumptions made about the pattern of adjustments.

We can analyze the incentives that would operate on the affected parties and the actions that could be expected in response to these incentives. We can identify the possible outcomes. But we cannot make any definite forecast of what adjustments the affected parties would make, and therefore we cannot forecast what the bill's exact effects would be.

It does appear certain that the bill would impose some economic costs. Whether the benefits which the bill would provide by eliminating gender distinctions are worth the costs is a serious social issue which only the Congress can resolve. We attempt only to clarify the extent of the economic effects of the bill.

As indicated above, we believe that the four major effects of the bill would be its effect on creating unfunded liabilities, its redistributive effects, its economic efficiency effects, and its administrative costs. We consider each of these effects in turn.

UNFUNDED LIABILITIES

The "topping-up" provision of S. 372 (sec. 4(c)(2)) would require that, whenever unequal pension and insurance contracts were to be equalized in accordance with the provisions of the

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bill, the equalization could be done either by equalizing premiums on contracts with equal benefits or by equalizing benefits on contracts with equal premiums. If benefits were equalized, this would have to be done by raising the benefits to the sex receiving the lower benefits ("topping up" the disadvantaged sex) without reducing the payments to the sex receiving the higher benefits. In pension plans where sex-distinct actuarial factors are used, men and women usually receive equal basic benefits but unequal optional benefits (such as early-retirement and joint-and-survivor options). Since men and women would not receive equal benefits under all options in such plans, benefits would have to be equalized, and topping-up would be required if the optional benefit levels had been guaranteed. The average level of payments would thus rise without being accompanied by any corresponding increase in assets. Because liabilities would increase without being accompanied by any increase in funding, unfunded liabilities would be created or enlarged for pension plans and insurance companies.[2] The bill would also create unfunded liabilities in the pension plans under the trusteeship of PBGC.

Topping up would create a significant unfunded liability only when an insurance or pension contract specifies premiums and payments to be paid over an extended period of time. Such long-term contracts are generally found only in life and disability insurance and in pensions. Auto and health insurance are typically short-term contracts which are renewed at least annually. Frequent renewal would allow premiums and coverages to be adjusted to unisex requirements in a way that would avoid significant unfunded liabilities.

Unfunded liabilities for pension plans

In pension plans, topping up would be required for the annuity options received by women in "defined contribution" plans. Topping up would also be necessary for many of the early-retirement and joint-and-survivor options for men in "defined benefit" plans. This would create or add to unfunded liabilities in both kinds of plans.

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[2]Strictly speaking, an insurance company is not permitted to have an unfunded liability. We use the term "unfunded liability" here to refer to the increase in liabilities for an insurance company which would have to be "funded" by an immediate increase in the company's reserves. For convenience, we refer to these increases in liabilities, along with the increase in liabilities of pension plans, as the unfunded liabilities created by S. 372.

Defined contribution plans

A "defined contribution" plan is a plan in which the employer promises to pay a particular contribution on the employee's behalf into the employee's pension fund account in each year of employment. The benefit paid at retirement varies with the earnings of the pension fund. Equally situated men and women (i.e., those of the same age and with the same work history) have equal amounts contributed on their behalf. They receive equal benefits at retirement if they select a lump sum benefit, but women who select a life annuity option may get lower monthly annuities to compensate for their greater expected longevity. For men and women who selected the annuity option and are already retired, S. 372 would require that women's benefits be topped up to equal those of men. For men and women who are still working, S. 372 would require that future annuities be paid out on a unisex basis.

Increased benefits to current retirees would increase costs to defined contribution plans. It is not clear, however, to what extent the topping-up provision, when applied to past accruals for active employees, would increase costs for defined contribution plans. Some defined contribution plans have made commitments to a particular monthly annuity or to a particular rate at which lump sums are to be converted into annuities. These commitments are generally conservative, and the actual annuity or conversion rate is usually more liberal than the annuity or conversion rate which has been promised. Nonetheless, the bill would require that both men and women be granted no less than the higher of the two annuity or conversion rates that have been promised. In many cases, the higher of these two promised rates is less than the rate actually paid to women, because interest rates have turned out to be higher than the conservative interest rates assumed. In these cases, topping up would impose no costs. However, where less conservative interest rates are assumed (or if interest rates should fall substantially), the rate promised to men could be higher than the actual rate paid to women, so that the topping-up requirement could impose a cost. In a few cases, each year's contributions are used to purchase deferred annuities. Since these involve a definite commitment to a payment in the future, they would have to be topped up. It is thus uncertain what proportion of past accruals in defined contribution plans would have to be topped up.

Defined benefit plans

A "defined benefit" plan is a plan which promises to pay out a particular benefit, determined in advance by formula, to the

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employee when the person is retired. The employer contributes whatever is necessary, taking into account the expected earnings of the pension fund and other actuarial factors, to fund this promised benefit. In a defined benefit plan, the basic benefit is a single life annuity, which is already paid on a unisex basis. But sex-distinct actuarial tables are used in many cases to convert the unisex annuity into other optional benefit forms. When a joint-and-survivor option is chosen, for example, under which the annuity continues through the life of the retired employee's surviving spouse, men receive lower monthly benefits than women to compensate for the fact that a male employee's wife is more likely to survive him than a female employee's husband is to survive her. Similarly, men electing early-retirement and lump-sum options in some plans receive lower benefits because sex-distinct actuarial tables are used.

Different categories of topping-up costs

The various studies of the effect of mandating unisex pensions differ in their estimates of the unfunded liabilities created. These differences occur partly because different studies include different categories of topping-up costs. There are several categories of payments that could be affected by putting pensions on a unisex basis, but not all of these would have to be topped up under S. 372. When topping up is not required, unfunded liabilities are not created.

For convenience, we have divided the possible kinds of increased payments into four types. The first type is future payments to current retirees. These would definitely have to be topped up under the bill. The second type is future payments that have already been earned by active employees (i.e., those still working). We believe that these would have to be topped up for defined benefit plans which have guaranteed sex-distinct optional benefits, but might not for many defined contribution plans, since in many such plans binding advance commitments to a particular payment have not been made. The third type is future payments to active employees arising as a result of the employees' future work. Under the Supreme Court's recent decision in the Norris case, pension benefits to be earned in the future are to be earned on a unisex basis.[3] Therefore, we believe that no

[3]The Supreme Court, in Arizona Governing Committee v. Norris (July 6, 1983), decided that title VII of the Civil Rights Act of 1964 requires that pension plan benefits be on a unisex basis, but that this should be required, in that particular case at least, only for pension benefits earned after August 1, 1983.

further topping up would be necessary as a result of enacting S. 372. The fourth type is past payments to retired employees. These payments are clearly exempted from the topping-up requirement by sec. 4(c)(2) of the bill.

Estimates of unfunded liabilities for pension plans

We reviewed several studies of the size of the unfunded pension liabilities created by S. 372, including four studies (the AAA, DOL, ACLI, and NYSTERS studies) which we were specifically asked to examine. None of the estimates presented in these studies is directly applicable to estimating the overall pension liabilities imposed by S. 372. The AAA has withdrawn the estimate given in its study, so we did not review it in detail. The NYSTERS study applies to only one plan, though we shall comment on it along with other studies by public plan actuaries below. ACLI's estimate is derived from the DOL estimate but incorporates adjustments to reflect different methodological and actuarial assumptions. Since the ACLI estimate was based on the DOL study, we focused on the DOL study and considered what adjustments to it were appropriate. The DOL study was originally prepared to estimate increased liabilities under title VII of the 1964 Civil Rights Act, so we have suggested various adjustments to make its estimates conform to the specific requirements of S. 372 and to reflect the changes required by the Norris decision. We have also suggested adjustments to include potential omitted cost factors.

Our adjustments to the DOL estimates are shown in tables 1 and 2. These estimates include costs for all pension plans using sex-distinct actuarial tables, including plans administered by insurance companies, private employer-administered plans, and public (state and local government) sponsored plans. Federal pension plans do not make any significant use of sex-distinct actuarial tables. Table 1 shows the unfunded liabilities created by the bill; table 2 shows the corresponding annual costs assuming that the unfunded liabilities were amortized over 30 years or, for costs of payments to retired employees, over 10 years. Column I in each table begins with the original DOL estimate (shown in row A) followed by a series of adjustments.

The first adjustment (row B) deducts the "type 4" costs (past payments to retired employees). These costs were included by DOL because, at the time that DOL prepared its study, they were potentially liabilities under title VII of the Civil Rights Act for which DOL was asked to estimate costs. They would clearly not be imposed, however, by S. 372.

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Table 1

Additional Unfunded Liabilities for Pension Plans Due to S. 372 Derived from DOL Estimates

(millions of dollars)

Row	Types of Costs	Column I[1]	Column II[2]
A	Original DOL estimate:	$ 6708 - 9047	$ 5808 - 6796
	Deletion of "type 4" costs	(-)3235 - 3449	(-)3236 - 3449
B	CUMULATIVE TOTAL:	(=)3473 - 5598	(=)2572 - 3347
	DOL "type 2" adjustment:	(+)2255 - 2406	(+)1911 - 2020
C	CUMULATIVE TOTAL:	(=)5728 - 8004	(=)4483 - 5367
	DOL adjustment for topping up early retirement factors:	(+)1786 - 2200	(+)1786 - 2200
D	CURRENT DOL ESTIMATE:	(=)7514 - 10204	(=)6269 - 7567
	GAO correction for double vesting adjustment:	(+)1475 - 799	(+)1475 - 799
E	CUMULATIVE TOTAL:[3]	(=)8989 - 11003	(=)7744 - 8366
	Type 1(retired employees)	2109 - 2268	2109 - 2268
	Type 2(active employees)	6880 - 8735	5635 - 6098

[1]DOL estimate of effect of S. 372, plus adjustment by GAO.

[2]Effect if "type 2" costs (topping up accrued benefits of active employees) for defined contribution plans are excluded.

[3]We have also calculated a possible adjustment for the cost incurred if men increase the rate at which they elect the joint and survivor option. If the percentage of men electing this option rose from 30 percent to 40 percent, liabilities would rise by $1418 to $1520 million. We use 40 percent for illustrative purposes. We are not forecasting how many men will elect the joint and survivor option under S. 372.

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Table 2

Additional Annual Costs to Pension Plans Due to S. 372 Derived from DOL Estimates

(millions of dollars)

Row	Types of Costs	Column I[1]	Column II[2]
A	Original DOL estimate:	$ 1195 - 1662	$ 1115 - 1463
	Deletion of "type 4" costs	(-) 378 - 403	(-) 378 - 403
B	CUMULATIVE TOTAL:	(=) 817 - 1259	(=) 737 - 1060
	DOL "type 2" adjustments:	(+) 200 - 214	(+) 170 - 179
C	CUMULATIVE TOTAL:	(=)1017 - 1473	(=) 907 - 1239
	DOL adjustment for topping up early retirement factors:	(+) 308 - 383	(+) 308 - 383
D	CURRENT DOL ESTIMATE:	(=)1325 - 1856	(=)1215 - 1622
	GAO correction for double vesting adjustments:	(+) 272 - 148	(+) 272 - 148
E	CUMULATIVE TOTAL:	(=)1597 - 2004	(=)1468 - 1770
	GAO deletion of "type 3" costs	(-) 671 - 890	(-) 671 - 890
F	CUMULATIVE TOTAL:[3]	(=) 926 - 1114	(=) 815 - 880
	Type 1(retired employees)	314 - 338	314 - 338
	Type 2(active employees)	612 - 776	501 - 542

[1]DOL estimate of effect of S. 372, with adjustments by GAO.

[2]Effect if "type 2" costs for defined contribution plans are excluded.

[3]We have also calculated a possible adjustment for the cost incurred if men increase the rate at which they select the joint and survivor option. If the percentage of men electing this option rose from 30 percent to 40 percent, liabilities would rise by $126 to $135 million. We used 40 percent for illustrative purposes. We are not forecasting how many men will elect the joint and survivor option under S. 372.

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The second adjustment (row C) incorporates some adjustments which DOL recently made to its estimates for topping up past accruals by active employees.

The third adjustment (row D) was performed by DOL in response to a suggestion by Donald Grubbs, an independent actuary. Grubbs noted that many defined benefit plans use sex-distinct early retirement factors which would have to be topped up and that the DOL study had not accounted for these increased liabilities.

We made the fourth adjustment (row E) in response to a suggestion by ACLI. They argued, and we agreed, that DOL had erroneously adjusted twice for the fact that some employees will not vest, and therefore would not collect any topped-up benefits. Correcting for this double adjustment increases the unfunded liabilities. ACLI had also suggested an adjustment for the rise in women's share of the labor force, but we believe that such an adjustment is not appropriate, since the rise in women's labor force share would be compensated by a fall in men's labor force share, and the size of any such shift is highly speculative in any case.

A fifth adjustment is shown in table 2 (row F). It deducts the "type 3" costs (future accruals by active employees) included in the DOL estimate. We do not believe that any further topping up of these accruals would be necessary after the Norris decision is put into effect. (This adjustment is not shown in table 1 because DOL never calculated unfunded liabilities for future accruals.) An additional possible adjustment is shown in footnote 3. The adjustment shows the effect of more men selecting the joint and survivor option in response to the more favorable terms under which it would be offered men in a unisex environment. For illustrative purposes, the calculation shows the effect of one particular assumption about the response men would make; however, we have no way of predicting how large the actual response would be.

Column II in each table shows the effect of adjusting DOL's estimate and ours to account for possible overstating of type 2 costs (previous accruals by active employees) for defined contribution plans. As discussed previously, we do not know what proportion of past accruals for active employees in defined contribution plans would actually have to be topped up. We therefore show the range of costs if all of these accruals had to be topped up (column I) and if none were (column II). We believe the true cost would be somewhere within this range.

One final factor should be considered. The DOL estimates were based on 1977 data on the number of plans using sex-distinct actuarial tables. Since then, the Norris decision, which required plans to put their future accruals on a unisex basis, has apparently also led many pension plans to convert to unisex tables for their past accruals as well. It is simpler administratively to use the same tables for both future and past accruals. Also, a number of plans have apparently switched to unisex tables in conjunction with their compliance with Revenue Ruling 79-90. Effective January 1, 1984, this ruling for the first time requires plans to incorporate their actuarial conversion tables in the plan document. Plans which previously did not incorporate their actuarial conversion table in the plan document have been able to switch to unisex tables for both past and future accruals at no increase in liability, while at the same time avoiding the administrative problems associated with using different tables for different accruals.

Any plan which switched to unisex tables for its past accruals since 1977 would avoid the "type 2" topping-up costs estimated in tables 1 and 2. We have no data on the number of plans which fall into this category. However, conversations with independent actuaries suggest that the proportion is substantial.

Depending upon which costs are included, our adjustments to the DOL estimates yield unfunded liabilities for pension plans of $7.7 to 11.0 billion. Of this total, we estimate, based on DOL and ACLI data, that $2.9 to 3.6 billion would be borne by state and local governments, $4.0 to 6.4 billion would be borne by private employers, and $0.8 to 1.0 billion would be borne by insurance companies.

The DOL data on public plans are less reliable than their data on private plans, since private plans are required by ERISA to report to DOL, while public plans are not. Other estimates for public plans have been assembled, at the request of ACLI, by the actuarial firm of Milliman and Robertson, which assembled estimates of unfunded liabilities from the 40 largest state-administered public plans in the United States representing about 48 percent of benefits in all state and local government plans. Milliman and Robertson report that these plans estimate $5.0 billion in total unfunded liability created by the bill. This figure includes the NYSTRS estimate of $313 million in unfunded liabilities for their plan. Of this $5.0 billion total, perhaps $1.3 billion is for topping up of future accruals which we do not believe would be required under S. 372 once the Norris decision is implemented. The net unfunded liability would thus be about $3.7 billion. If we expand this figure to include omitted plans,

the total for public plans would be about $7.7 billion. This substantially exceeds DOL's estimate (as adjusted by GAO) of about $2.9 to $3.6 billion.

On the basis of conversations with several public plan actuaries, we believe that this difference is accounted for largely by the fact that (1) most public plan actuaries used a lower interest rate than DOL did in valuing liabilities, thus producing a larger present value, and (2) public plan actuaries had better data on their plan populations than did DOL. We believe that the DOL estimate may be based on a more realistic interest rate assumption but that the Milliman and Robertson estimates may be based on better data on public plan populations. While we do not believe the true figure for public plans would be as high as $7.7 billion, because of the conservative interest rate assumptions incorporated in that estimate, we do not know how high the true figure would be. We therefore show the $7.7 billion figure as the top end of the range of estimates for public plans, and the DOL/GAO lower estimate of $2.9 billion as the bottom end of the range. The total unfunded liabilities for all pension plans, public and private, could therefore be as high as $15.1 billion.

These estimates all assume that pension plan sponsors adjust to S. 372 solely by topping up benefit payments. There is some chance, however, that the actual increase in liabilities would be less than these estimates imply. Some defined benefit plan sponsors might react by altering their plans to slow the rate at which future accruals accumulate, thereby reducing future pension plan liabilities. Other sponsors may be able to reduce their liabilities somewhat by dropping some of the options which they currently offer in their plans. It is these options (such as the annuity option in a defined contribution plan or the early retirement and joint-and-survivor options in defined benefit plans) that produce the unfunded liabilities. Sponsors are prohibited by ERISA from dropping the joint-and-survivor option from plans that provide a life annuity. If a plan dropped the early retirement or annuity option, it could face legal challenges to the extent that dropping the option impaired employees' contractual rights under the plan or reduced the value of their accrued benefits. We have not attempted to estimate the size of this effect. Option-dropping has occurred in at least one case due to the Norris decision.

Relation to existing unfunded liabilities and contributions

The size of existing unfunded liabilities can vary sharply depending on the market value of pension fund assets. However,

the data we have found suggest that, assuming sponsors' only adjustment would be to top up benefits, the unfunded liabilities created by the bill would increase existing unfunded liabilities by 8 to 15 percent. The annual costs, shown in table 2, would be $815 to $1114 million. Using the Milliman and Robertson data would raise the maximum annual cost to $1,573 million. This represents an average of 1 to 2 percent of annual contributions into these pension plans. For some plans, of course, the cost would be a larger percentage of current contributions than the average. For none of the public plans surveyed by Milliman and Robertson, however, would the additional annual cost exceed 5 percent of current contributions or 1 percent of current payroll.

Unfunded liabilities for insurance companies

In insurance, S. 372 would similarly create unfunded liabilities by increasing benefits under current contracts. Life insurance policies, individual annuities, and in some cases disability policies would be affected. Insurance companies would also bear some of the unfunded liabilities created for those pension plans which are administered by life insurance companies (e.g., group annuities).

The only study that we believe has been made of unfunded liabilities for insurance companies is an ACLI survey of its members. ACLI asked its members to compute the unfunded liabilities created by the bill. The firms were asked to respond by assuming that their adjustment to the unisex environment would be achieved by topping up coverages and cash values without changing premiums. On this basis, the 153 member companies responding to the survey, which represent about 80 percent of the assets of the life insurance industry, reported unfunded liabilities resulting from the bill totalling $14.5 billion.

Since these estimates were prepared independently by the 153 responding companies, we have not reviewed the methodologies used in this study in detail, and thus cannot comment on the accuracy of this estimate. The estimate, however, is based largely on one particular assumption about how insurance companies would respond to S. 372. The ACLI survey asked firms to assume that equalization would be achieved by topping up coverages for men, not by either cutting premiums for men or increasing premiums for women.

We believe that cutting premiums for men would be permissible under the bill. While the ultimate increase in liabilities for a company might be nearly as high if the company cut premiums as if it raised coverages, companies would not be required to

increase their reserves as much immediately if they adjusted to S. 372 by reducing premiums. For example, in the case of one company for which we have data, about half of the immediate reserve increase otherwise necessary would be eliminated if it cut premiums rather than increasing its coverages. Nevertheless, companies might choose to top up coverages, despite the increased reserve required, because it would be simpler administratively than cutting premiums, and would also avoid reducing their future cash flow.

Also, the bill would specifically authorize insurance companies to increase premiums (subject to state approval) if clearly necessary to comply with the act. Increasing premiums on contracts currently in force might prove quite difficult, but to the extent premium increases proved to be a practical alternative, the increase in unfunded liabilities would be smaller.

If all companies equalized by cutting premiums rather than increasing coverages, and if this had the same effect on reserve increases for other companies as it had for the one company for which we have data, then the immediate reserve increase for insurance companies under S. 372 could be as low as $8.3 billion. On the other hand, if all companies equalized by increasing coverages, and if the companies not covered by the ACLI survey had reserve increases per dollar of assets equal to those of firms responding to the ACLI survey, then the reserve increases could be as high as $17.1 billion (both of these estimates exclude reserve increases for topping up group annuities, which are covered under pension plans). Under either adjustment strategy, the ultimate increase in liabilities would be close to the upper end of this range; however, as indicated above, as much as half of that liability would not have to be immediately reserved if companies cut premiums rather than increasing coverages.

Unfunded liabilities for PBGC

Finally, PBGC estimates that its unfunded liabilities resulting from the bill would be about $25 million. This includes only increased costs for plans already under PBGC's trusteeship, not the possibly increased costs of plans which might terminate because of the unfunded liabilities imposed by the bill. The increase in pension liabilities could induce some defined benefit plans to terminate, potentially increasing the liabilities of PBGC, which insures such plans. PBGC staff, however, believe that the possibility of plans imposing substantial new liabilities on PBGC due to terminations resulting from the requirements of S. 372 is slight. This is partly because the

increase in liabilities imposed by the bill would be small relative to the total liabilities of the plans, and partly because most plans which terminate with substantial unfunded liabilities not covered by their net worth terminate for reasons other than the cost of the plan (e.g., bankruptcy).

Total unfunded liabilities

Based on the preceding analysis, we estimate that the total unfunded liabilities resulting from S. 372 could vary as follows:

Pension plans:[4]	$ 7.7	-	$15.1 billion
Life insurance companies:[5]	8.3	-	17.1 billion
Total:	$16.0	-	$32.2 billion

Effects of unfunded liabilities

Long-run redistributive effects

In the long run, the major impact of these unfunded liabilities would be redistributive; that is, they would result in financial transfers from one group of people to another. The $16.0 to $32.2 billion represents the present value of the increased pensions and insurance coverages that would be received by retirees and insurance beneficiaries and policyholders. It thus represents both $16.0 to $32.2 billion in benefits received and $16.0 to $32.2 billion in costs imposed. We did not assess

[4]The lower estimate is from table 1, column II. The higher estimate is based on the estimate in table 1, column I, adjusted upward to be consistent with the Milliman and Robertson estimates.

[5]The data shown are required reserve increases. The lower estimate represents a downward adjustment from ACLI's $14.5 billion estimate to account for possibly reduced reserve increases if premiums, rather than coverages, are adjusted. Ultimate liabilities would probably be higher. Both estimates have been adjusted upward to include the 20 percent of life insurance assets excluded by the $14.5 billion estimate. Liabilities for group annuities ($0.8 to $1.0 billion) are excluded, since they are already included in the data for pension plans.

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the desirability of this redistribution, as this is a policy issue to be resolved by the Congress.

The initial increases in pension benefits would be enjoyed by both men and women. Most benefit increases under defined contribution plans would be for female participants and their beneficiaries, and most benefit increases under defined benefit plans would be for male participants and their beneficiaries. The actual proportion of benefits received by men and women is uncertain, because benefits would probably be shared with spouses to some extent, and some of the benefit increases would be received directly by surviving spouses rather than by retired employees. DOL has estimated that 55 to 95 percent of the benefit increases would go to men. That estimate does not take into account benefits received by surviving spouses and does not take into account sharing of pension benefits with spouses while the retired employee is alive. If one incorporates the effect of higher benefits to surviving spouses and assumes no sharing of income between married retired employees and their spouses, women would receive 26 to 36 percent of the benefits. On the other hand, if one assumed that all benefits to married retirees should be thought of as shared equally with their spouses, women would receive about 57 percent of the benefit increases.

Increased benefits would mean higher costs to pension sponsors. Eventually, the sponsors would recover most of these costs, but it is impossible to predict the pattern in which these costs would be recovered. Retired employees might receive smaller ad hoc pension increases; active employees might receive smaller wage increases and/or smaller pension and other fringe benefit increases, or even benefit reductions; employers might pass costs on to customers or perhaps suppliers; state and local governments might pass costs on to taxpayers in the form of tax increases or service reductions. There might be some redistribution from younger active employees to older active employees and retired employees.

Costs of unfunded liabilities of insurance companies would probably be passed on to stockholders and policyholders in stock companies and to policyholders in mutual companies. Current policyholders could be affected either by reductions in dividends on participating policies or (although they might prove difficult and therefore relatively rare) by premium increases. New policyholders might experience some increase in premiums to pay for the increased benefits received by existing policyholders. While cost-shifting would probably occur, we do not know exactly what pattern it would take, and thus we cannot assess its effects.

Short-run disruptive effects on pension plans

In the short run, the unfunded liabilities created by S. 372 could cause some disruptions, such as insolvencies of insurance companies and terminations of insurance coverage. The severity of these disruptions would depend upon (1) the size of the unfunded liabilities, (2) the time available for insurers and pension plans to adjust to the unfunded liabilities, (3) the uncommitted financial reserves available to the institutions to meet these increased liabilities, and (4) the legal constraints on the flexibility of the institution to respond to these liabilities.

Pension plan sponsors would have some degree of flexibility in dealing with the increased liabilities. The plan sponsor could reduce somewhat the rate at which pension benefits were earned in the future or reduce ad hoc increases for retirees that might otherwise have occurred. The sponsor might also be able to rearrange the pattern in which payments must be made by changing its actuarial assumptions or its actuarial cost method. This would not reduce the total expenses incurred, but might make the payments more bearable by rearranging them in time.

Pension plan sponsors subject to ERISA's funding requirements would be required to amortize the unfunded liabilities created by the bill over a period not to exceed 30 years. The increased liabilities created by S. 372 would make it somewhat more burdensome for plan sponsors to maintain the required level of payments. However, in view of the small size of the increase relative to the total size of existing contributions (between 1 and 2 percent of existing contributions), we believe that most plans would be able to handle the increased payments. However, state and local plans might have less flexibility in dealing with the increased liabilities than private plans, either because of statutory or constitutional constraints, or because some are already committed to automatic cost-of-living increases.

Short-run disruptive effects on life insurance companies

Perhaps the more serious adjustment problem would arise with respect to life insurance companies because they are required by state law to carry full reserves to back up the actuarial present value of their liabilities. If their liabilities increase, they must immediately increase their reserves or become legally insolvent. However, as noted above, the effect of S. 372 on insurance company liabilities would depend on how insurance companies adjusted to the unisex environment.

In the ACLI study, where many firms assumed that the adjustment would be through higher coverages and cash values, most nonetheless reported that they had sufficient funds available in their surplus accounts to meet the increased reserve requirements imposed by S. 372. Of course, use of these surplus funds would reduce the firm's ability to meet contingencies for which these surplus funds are maintained. But 24 of the 153 firms responding to the survey reported that they did not have sufficient surplus funds to provide the increase in legally required reserves. There are likely to be other firms not members of ACLI, or who did not respond to the survey, who would also have insufficient surplus funds.

Some of these firms might be able to avoid insolvency if they had more than the 90 days permitted in the bill to adjust to the requirements of the proposed act. If such firms had time to reduce dividends, for example, they might be able to increase their surplus funds sufficiently to avoid insolvency. Others could avoid insolvency if they reduced premiums rather than topped up coverages, as ACLI's estimates assumed. Finally, if state insurance regulators permitted premium increases, and if the courts upheld the breaking of contracts that would be involved, it is possible that no insolvencies would take place.

If a firm did become insolvent, the state insurance commissioner would be required to seek a rehabilitation order from the state courts to give the commissioner legal control of the company's assets. Depending upon the company's prospects, the state insurance commissioner could allow the company to continue operating as a going concern (under restrictions imposed by the commissioner), could encourage it to merge with a stronger firm, or could force it to liquidate. If the firm were liquidated, insurance coverage for the firm's policyholders could be terminated, forcing them to seek coverage elsewhere. We cannot predict how many, if any, firms would become insolvent, or to what extent insolvencies would lead to termination of insurance coverage. It would depend upon actions taken by the firms themselves and by their state regulators.

While it is possible that insolvencies could be avoided, they could be avoided entirely only by raising premiums on existing contracts, which might well lead to protracted litigation. If insurers raised premiums, litigation would be likely; if they cut premiums or raised coverages, insolvencies would be likely. Either way, the short-run disruptive effects due to changes in existing insurance contracts would probably be the most serious adverse effect of the proposed act. These adverse effects could be avoided if the bill were made inapplicable to existing individual insurance contracts.

REDISTRIBUTIVE EFFECTS

Factors affecting redistributive effects

Redistributive effects would occur not only in pensions and in response to the unfunded liabilities created in life and disability insurance policies, but also among new life and disability insurance policyholders, as well as among auto and health insurance policyholders. Initially, the bill would generally cause auto and life insurance prices to rise for women and fall for men, while annuity, health, and disability prices would generally rise for men but fall for women. The mandatory pregnancy coverage provision of the bill would cause health and disability insurance prices to rise, imposing a net cost on those who do not bear children, to the benefit of those who do. Redistributive effects would be a gain to some parties and a loss to others. We did not assess the desirability of these redistributions, as this is a congressional policy determination.

The size of these redistributive effects would be limited by the extent to which insurance is already unisex. Auto insurance, for example, is already mostly unisex for "adult" drivers,[6] as well as for about 10 percent of "youthful" drivers, and some disability insurance is unisex. About half of life insurance and about 87 percent of health insurance is unisex group insurance.[7]

In addition, the size, and possibly even the direction, of these redistributive effects would be affected by the extent to which insurers increased their use of alternative rating factors which partially replaced the predictive power lost when sex could no longer be used. A number of such alternative rating factors have been suggested, such as mileage, accident and violation record ("merit rating"), and make and model of car in auto insurance, and smoking and occupation in life, health, and disability insurance. All of these factors are used to a limited extent by insurers now, but, because many of them are correlated with sex, they have less predictive power as long as sex is also used as a rating factor. To the extent that these other rating factors were used more extensively and replaced a portion of the

[6]"Adult" drivers are generally single drivers over 29 and married drivers over 25. Some companies offer a 10 percent discount for female sole operators over 29.

[7]However, the rate paid by the group may reflect the sex composition of the group. These distinctions based on sex composition would likely be illegal if S. 372 were enacted.

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predictive power of sex, redistributive effects between the two sexes would be less.

But concerns about the practicability of using these risk factors might deter firms from making more extensive use of them. The practicability of making more extensive use of these risk factors is in sharp dispute, especially in auto insurance. No one denies that each of these factors is correlated with risk. But industry representatives argue that these factors are already used to the maximum feasible extent. They argue that data on mileage are not sufficiently reliable for more extensive use in auto insurance rating, and that data on accident and violation records are not available in all states. They note that the one company that has used unisex rating extensively in auto insurance, Commercial Union, has had underwriting losses recently, and argue that its experience is not applicable to other firms because its underwriting standards are stricter than those of other firms. Finally, they note that in the four states that require unisex rating of auto insurance, there has been no tendency to employ mileage more extensively.

Proponents of S. 372 respond that, while mileage and merit rating are currently used to some extent, the surcharges on high mileage drivers and those with frequent accidents and violations are much less than the actuarially fair rate. They argue that insurers use sex as a surrogate for mileage (because male drivers tend to be high mileage drivers) and that insurers would be forced by competitive pressures to make greater use of mileage as a risk factor if they were not allowed to use sex as a surrogate. Proponents argue that the experience of Commercial Union does in fact demonstrate the feasibility of using mileage as a risk factor, arguing that the underwriting standards on Commercial Union's standard unisex policy are not out of line with industry practice, and that Commercial Union's underwriting losses were due to a failure to charge a high enough surcharge on inexperienced drivers and to Commercial Union's rapid growth rate, not to problems with mileage rating. They argue that companies have not introduced mileage rating in the four unisex states because those states represent too small a portion of the market to justify development of a wholly new risk classification system.

While debate on the feasibility of more extensive use of alternative risk factors has focused primarily on auto insurance, there has also been a similar debate on the feasibility of greater use of smoking and occupation as additional risk factors in life insurance.

We cannot offer a reasonably reliable prediction of the extent to which alternative risk factors would be used in auto or life insurance if sex could no longer be used. While competitive pressures would encourage their greater use, doubts about their practicability might inhibit their widespread use. We cannot say how widely they would be used in a nationwide unisex environment before a nationwide unisex environment is actually in place.

D-3 Advisory Committee report

The D-3 Advisory Committee report has questioned the workability of substituting other risk factors for sex in auto insurance. They have argued that other rating factors do not fully replace the predictive power of sex and that other rating factors are less feasible administratively than sex. They believe that sex is an inexpensive risk factor and less subject to misrepresentation than are other rating factors which might replace it. Data in the report suggest that no single alternative factor is a perfect substitute for sex. Neither mileage nor merit rating nor any other alternative risk factor, by itself, eliminates variations in risk by sex. They did not, however, attempt to measure how much of the variation in losses is explained jointly by these alternative risk factors, as compared with the variation in losses explained by sex. We therefore consider the D-3 Advisory Committee Report not totally conclusive on the question of the relative predictive power of sex and other risk factors.

American Academy of Actuaries Report

The American Academy of Actuaries has estimated the size of the redistributive effects between men and women that would occur if S. 372 were enacted. They estimate that in auto and life insurance there would be transfers of $700 million and $360 million, respectively, from women to men. In health and disability insurance, there would be transfers of $69 and $37 million, respectively, from men to women. They were unable to estimate the size of the redistributive effect in pensions.

These estimates do not take into account the possibility that other rating factors would be introduced in place of sex. This may cause them to overestimate the actual transfer which would take place. Also, the two firms whose data were used as the basis of the AAA estimate may not be representative of the market as a whole. On the other hand, the AAA study is now 3 years old, and the expansion in premium volume since then would probably increase the estimates somewhat. The AAA also omitted what they described as a "small" increase in prices for some women over 30 years old.

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An alternative study by the National Insurance Consumers Organization (NICO) assumed that all auto insurers would introduce more extensive use of mileage as a risk factor, both for youthful drivers and for adults. This study estimated that women under 25 would find their premiums rising by $95 million, but that women over 25 would find their premiums falling by $890 million, because their low mileage would more than compensate for the loss of the modest discount which women over 25 currently receive. The estimated net savings for women ($795 million) would also increase by using the increased premium volume over the last 3 years (NICO used the same data on premium volume as did AAA). The NICO study may overestimate the size of the saving for women because it may have overestimated the portion of premium volume paid by single women over 25. The savings for women could be eliminated altogether if insurance companies made less extensive use of mileage rating than NICO assumes.

While there is some dispute about the correct data to use in making these estimates, we believe that the major factor which explains the widely differing estimates is the differing assumption about the extent to which mileage rating would be more extensively and effectively used. Since it is impossible to predict with a reasonable degree of reliability the efficacy of mileage rating and therefore the extent to which it would be more widely used, we are unable to predict the exact effect on women's premiums within this range.

Finally, it should be noted that these transfers are the transfers that would take place between individuals. Insofar as men and women live together in families, positive and negative effects on individuals would tend to cancel out, so that the transfers among families would be smaller than the transfers among individuals.

The AAA also estimated the cost of the mandatory maternity coverage required by S. 372. They estimated that annual health and disability premiums for men would rise by $82 and $57 million, respectively, and that annual health and disability premiums for women would rise by $85 and $7 million, respectively. We believe these estimates may be overstated somewhat because they assume that administrative costs would rise in proportion to the increase in claims. While the claims costs, which are about 60 percent of the total, would be expected to rise, the remaining administrative costs would not. We therefore expect that about 40 percent of this cost increase would not take place. Furthermore, we believe that the estimates of increases in disability premiums may have assumed too high an average period of disability due to pregnancy (11 weeks). If insurance companies were

able to limit payments in most cases to the 6- to 8-week period suggested by the American College of Obstetricians and Gynecologists, the estimates for increases in disability premiums, taking into account both the exclusion of administrative cost increases and the shorter assumed disability period for maternity, would fall to about 34 percent of the original AAA estimates.

SRI International report

While the AAA sought to estimate the size of these redistribution effects, the SRI report sought to assess the equity of these effects. They sought to assess whether a unisex risk classification system was more or less equitable than a sex-distinct system. SRI argues that there are conflicting criteria for assessing whether one rating system is more equitable than another and that the debate over equity arises largely because different people emphasize different criteria for deciding whether a rating system is equitable.

The SRI report considers four criteria for assessing the equity of a risk classification system:[8] actuarial fairness, equal treatment, distributional equity (i.e., effects on different income groups), and asymmetrical bias (i.e., avoidance of large overcharges). Of these, SRI treats the first, second, and fourth as most relevant to assessing the equity of unisex insurance.

By the criterion of actuarial fairness, a rating system is most equitable when all relevant rating factors are used, including sex, mileage, and accident and violation record. A rating system is most actuarially fair when it minimizes the total of overcharges and undercharges. By this criterion, removing any factor from the rating system, including sex, is inequitable.

By the equal treatment criterion, a rating system is fair if premiums do not differ on the basis of "societally suspect" variables. SRI suggests that sex may be "societally suspect" because its use arguably "deprives an identifiable subgroup of equal protection, promotes harmful sterotypes, or reinforces previously established harmful patterns of discrimination." Promoting fairness by the "equal treatment" criterion in general is in conflict with promoting fairness by the "actuarial fairness" criterion.

[8]While the SRI report focuses exclusively on auto insurance, the same principles apply to other insurance lines and to pensions. The report does not consider differences in administrative costs associated with various rating schemes as part of its discussion of the various equity standards.

By the asymmetrical bias criterion, a rating system is fair if the rating factors used do not result in large overcharges to some policyholders. Large overcharges occur when the premium charged to a policyholder greatly exceeds the individual's expected risk. These overcharges occur when heterogeneous rating classes are used (i.e., classes whose members vary widely in expected risk).

Eliminating a risk factor, like sex, can reduce a few large overcharges, particularly in auto insurance. However, it can also increase many small overcharges, and thus reduce actuarial fairness. It could also fail to reduce even the large overcharges if other risk factors, such as mileage, were introduced, and if these other risk factors created even more heterogeneous classes than those based on sex. We do not have good data on the relative heterogenity of classes based on sex and mileage. Therefore we can make no assessment of whether eliminating sex as a risk factor, assuming mileage were substituted for it, would reduce or increase large overcharges.

Because the actuarial fairness, equal treatment, and asymmetrical bias criteria for equity yield somewhat conflicting conclusions as to the suitability of sex as a risk factor, SRI concluded that, while sex might reasonably be prohibited as a risk factor, the decision to do so should be based on a legislative determination that the gain in equal treatment is worth the loss in actuarial fairness.

ECONOMIC EFFICIENCY EFFECTS

Efficiency losses

Economic theory argues that the economy operates most efficiently when prices are equal to costs of production (including a competitive profit). Insofar as S. 372 would cause prices to deviate from costs, it could impair economic efficiency. Discrepancies between prices and costs impair economic efficiency because they cause some products to be overpriced and others to be underpriced. Those who buy underpriced insurance may value it at less than its "cost of production" (i.e., the cost of paying claims and administrative expenses), thus leading to wasteful production. Those who do not buy overpriced insurance may nevertheless value it at more than its cost of production; an opportunity to satisfy consumer demand is thus wasted.

If men were undercharged for their auto insurance, for example, they might choose lower deductibles, even though these deductibles might not be worthwhile to them if they were charged

the correct cost-based price. If women were undercharged for their health insurance, they might buy "high-option" rather than "low-option" insurance, even though the expanded coverage might not be worthwhile to them if they had to pay the full cost-based price. Conversely, if women were overcharged for auto insurance, they might decline to buy coverage which could have been offered to them at an acceptable premium if their sex could have been taken into account. If men or women were required to buy maternity coverage on which they place little value, they would in effect be required to pay a higher price for the health or disability insurance which they do want and might buy less health and disability insurance as a result. Finally, if the price that men paid for a life annuity option in their pensions, in the form of forgoing a lump-sum option, were increased, men might decline the annuity option even though its value to them exceeded its true cost.

Adverse selection

The concept of "economic efficiency," in the context of insurance, is closely related to the concept of "adverse selection." Adverse selection refers to insurance customers changing their purchases of insurance because they are not being charged the correct price. Those who are undercharged buy more, and those who are overcharged buy less. Since it is those with higher than average risk (i.e., those who are undercharged for their insurance) who buy more, the average risk level of the insurance pool rises, increasing costs to the insurer. This process can lead to further market dislocations, such as insurers faced with rising costs leaving the market.

The potential for adverse selection would perhaps be greatest in individual health insurance, where the combination of moving to unisex rates and adding required maternity coverage could result in a dramatic increase in premiums for young males buying individual policies. The AAA has estimated that the combined effect of these changes would increase individual health insurance premiums for young males by 56 percent. Even if this increase were reduced by the substitution of other risk factors or by avoiding commensurate increases in administrative costs, the increase could still be substantial. Young males might be undesirably discouraged from buying individual health insurance.

S. 372 would also change the relative benefits of different kinds of pension options and might change the option choices which employees made. For women, single life annuities would become more attractive, and more women would probably choose this

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option. For men, lump sums, early retirement, and joint-and-survivor options would become more attractive, and more men would probably choose them (and, as described earlier, plan sponsors might alter the options offered).

From the point of view of the pension plans, these changes in option selection constitute "adverse selection," which would tend to increase the costs of the plan. We have illustrated the impact this effect might have in footnotes to tables 1 and 2. Other kinds of increased costs due to adverse selection, to the extent that they occurred, would probably be smaller. Also, to the extent that men increased their selection of the joint-and-survivor option, female survivors would receive increased benefits, and the share of women in total benefits would rise from the levels we have estimated.

Efficiency gains

It is also possible that in some cases the ultimate effect of S. 372 could be to improve efficiency rather than impair it. S. 372 would probably induce the substitution of rating factors which are more controllable than sex and which, in some cases, have a clear causal relationship with the risk of loss. Insofar as rating factors are both controllable and have a causal relationship to risk, they provide incentives to reduce risk, since reducing risk pays off in the form of a lower insurance premium. By reducing risk, they reduce claims costs and thus the cost to society of accidental losses. If the substitution of mileage for sex in auto insurance, for example, induced people to drive less to save on their auto insurance, they would also reduce their exposure to loss and reduce the accident rate, according to Department of Transportation data.

Size estimates of efficiency effects

The size of these efficiency gains and losses is difficult to calculate. They would depend on how accurate prices are now, on how much prices would change if the bill were enacted, and on how responsive consumers would be to these price changes. There is considerable controversy and uncertainty about all of these factors, which further research is unlikely to resolve.

We have explored the possible size of these economic efficiency effects, both positive and negative, using various assumptions about how responsive people would be to price changes, and about how large the price changes would be. While the data are too uncertain to report any results, it appears that, for the economy as a whole, both the positive and the negative efficiency

effects are not likely to be large compared with, say, the administrative costs of the bill. This does not mean, however, that there could not be serious adverse selection problems for particular insurers or in particular market segments.

ADMINISTRATIVE COSTS

S. 372 would entail substantial administrative costs, both to revise existing policies and to establish and administer new unisex policies. These costs would include costs of revising old policies and notifying policyholders of the changes; actuarial, legal, computational, and clerical costs of developing new policies; costs to obtain state insurance department approval of the new policies; and probably higher costs of verifying rating data if new rating factors were used. There would also probably be costs to state insurance departments of approving the new policies.

The American Academy of Actuaries has estimated that the costs of developing the new unisex policies and revising old policies would be about $1.3 billion. This estimate is a rough extrapolation from the experience of a few companies. As a measure of the immediate transitional costs for the industry, we have not found any reason to believe that it is either too high or too low, although some of the $200 million estimated for revising pension plans may have already been incurred to comply with the Norris decision. However, it does not include any estimate for the costs to state insurance departments or the possibly higher continuing costs of administering the new unisex policies.

The $1.3 billion estimate breaks down as follows:

	Administrative costs (millions)
Life insurance	
New policies:	$ 70
Existing policies:	800
Health insurance	
New policies:	120
Existing policies:	80
Auto insurance	
New policies:	75
Pensions	
Existing plans:	200
Total:	$1,345

These estimates of the administrative costs are based on the assumption that the industry would have between a year and a year and a half to comply with the requirements of the bill. The Academy believes that the 90-day compliance period specified in the bill would be impossible at any cost. In view of the time required to prepare new policies and, in many cases, have them approved by state insurance commissioners (the AAA cites one case in which this took 12 months), we believe that they are correct in that assessment. Moreover, we believe that if insurance companies attempted to meet the 90-day deadline, administrative costs would probably rise above the Academy's estimate. If firms failed to meet the deadline, additional costs for litigation might be incurred. On the other hand, the $120 million in estimated costs for revising health insurance policies might fall somewhat if a compliance period greater than 18 months were permitted, since this would allow the design of new unisex health insurance policies to take place as part of the normal process of new policy development which, according to the AAA, takes place every 3 to 5 years.

The administrative costs could be reduced substantially if the bill, as discussed on p. 18, were made inapplicable to existing individual insurance contracts. Since a majority of the administrative costs, $880 million out of $1,345 million, would be for revising existing individual insurance policies, these costs could be eliminated if existing individual insurance contracts did not have to be revised.

While we do not have an estimate of the total administrative costs of the insurance industry, total wages and salaries, which constitute the largest part of administrative costs, were $36.1 billion in 1981. The initial administrative costs of instituting unisex insurance would thus be less than 4 percent of one year's total administrative costs.

The Pension Benefit Guaranty Corporation has estimated that its total administrative costs for recalculating benefits in the plans for which it is trustee would be about $10 million.

The Congressional Budget Office estimated in 1982 that enforcement costs for the Department of Justice would be about $0.4 million per year.

APPENDIX II

United States Senate
COMMITTEE ON LABOR AND
HUMAN RESOURCES
WASHINGTON, D.C. 20510

March 7, 1983

Mr. Charles A. Bowsher
Comptroller General of the United States
General Accounting Office
Room 7000
441 G Street N.W.
Washington, D.C. 20548

Dear Mr. Bowsher:

S.372 is a bill to enact a Fair Insurance Practices Act, prohibiting various forms of discrimination, including sex discrimination, in the writing and selling of insurance. Similar legislation (H.R. 100) has been introduced in the House. The proposal is not a new one, the Senate Commerce Committee having reported a similar measure (S.2204) in the 97th Congress.

We do not dispute but indeed wholeheartedly support the goal of ensuring fair and equitable treatment of individuals. However, the hearing record developed to date leaves open some questions as to the impact of the legislation, particularly with respect to its cost implications. Obviously, cost considerations vary by type of insurance. In addition, the retrospective feature of the legislation would seemingly impose vested unfunded liabilities upon pension plans, thereby possibly making compliance under ERISA's minimum funding standards more difficult.

In order for Congress to appreciate more fully these economic implications of S.372, we request that GAO undertake an investigation of this matter. Last week, staff members of the Labor Committee met with members of your Program Analysis Division concerning the scope and nature of the investigation. We expect the respective staffs to communicate further toward the end of developing the

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specific topics of inquiry and the appropriate analytical framework.

Very truly yours,

Lowell P. Weicker
U.S. Senator

Orrin G. Hatch
Chairman

Nancy Landon Kassebaum
U.S. Senator

Paula Hawkins
U.S. Senator

APPENDIX III

U.S. Department of Labor

Labor-Management Services Administration
Washington D C 20216

Reply to the Attention of

FEB 17 1984

Mr. Richard L. Fogel
Director, Human Resources Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Fogel:

Pursuant to your request, we have reviewed your draft report, "Fair Insurance Practices Act will have Substantial Economic Impact." The draft report addresses the economic implications of S. 372, the "Fair Insurance Practices Act." Specifically, it reviews six studies of the economic cost of S. 372. Included in the review is the Department of Labor's study of the cost of "The Impact of an Equal Benefits Rule on Pension Benefits."

The Department's study did not address S. 372 or any other specific legislative proposal. Rather, it looked at the possible range of costs under title VII of the Civil Rights Act of 1964 of a requirement that pension plans provide equal benefits for men and women. GAO's draft report recognizes this and makes appropriate adjustments to reflect the specifics of S. 372.

One adjustment made by GAO was the development of a second set of cost figures to reflect GAO's view of whether topping-up would be required under S. 372 with respect to contributions or benefits already accrued for participants who were still working ("past accruals of active employees"). The second set of figures are lower than the first set because of GAO's belief that S. 372 would not require topping-up in defined contribution plans for past accruals of active employees. In explaining its reasoning, GAO (on page nine of the Appendix) states:

> "The second type is future payments that have already been earned by active employees (i.e., those still working). We believe that these would have to be topped up for defined benefit plans, but might not for many defined contribution plans, since in many such plans binding advance commitments to a particular payment have not been made."

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We note that if S. 372 does not require topping-up where there is no "binding advance commitment," many defined benefit plans also would not have to be topped-up. Based on informal conversations with Department of the Treasury staff, Treasury would not treat a plan which did not include an actuarial conversion table in the plan as reducing accrued benefits if a unisex table were now adopted for future conversions. We understand that some defined benefit plans did not include such tables prior to plans years beginning after December 31, 1983 (when all defined benefit plans are required to include conversion tables in the plan).

It would appear that these defined benefit plans may have to be treated like the defined contribution plans under the GAO logic. There is also some question at the Department of the Treasury, we understand, as to whether even those plans with actuarial tables included will be treated as reducing accrued benefits if unisex tables are substituted for sex-based tables.

We appreciate the opportunity to comment on GAO's draft report.

Sincerely,

Robert A. G. Monks
Administrator
Office of Pension and Welfare
Benefit Programs

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