

Gender Gaps in Benefits Coverage

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Gender differences in wages are well documented -- the female to male wage ratio is about .66 in the United States, and only about half of this wage gap can be explained by differences in observable characteristics of workers such as their age, education, and labor market experience (Smith and Ward, 1989; Goldin, 1990). Much of the remaining difference is associated with the fact that men and women tend to hold different jobs (Treiman and Hartmann, 1981; Groshen, 1988) -- the vast majority of men and women work in jobs that are over 70% one-sex, and it is estimated that 60% of American working women would have to change occupations in order to achieve a gender-neutral distribution of persons across occupations (Fields and Wolff, 1991; Bianchi and Rytina, 1986).

However, the previous chapter highlighted the fact that non-wage compensation (benefits) now accounts for between 30 to 40% of labor costs in western industrial countries. Hence, it is natural to ask whether gender gaps in benefits coverage exist, and if so, whether they have and implications for Human Resource Management and in particular for efforts to attract the best workers regardless of gender?

In a world in which, given total compensation, it was possible for a worker to find a job with any desired combination of wages and benefits, one could attribute all of the observed gender gaps in benefits coverage to the optimizing choices of workers, and there would be no need for either policy makers or employers to be concerned about them. There are two reasons to suspect that observed benefits choices may in fact be suboptimal. The first is that, as the previous chapter showed, the largest growth in benefits as a fraction of compensation occurred over a period when the composition of the workforce was far different than it is today. Since 1980, the labor force participation rate of women with preschool children has continued to increase from 45.1 to over 57%; the number of female-headed households has also continued to grow. To the extent that there is "institutional lag" available benefits packages may not meet the needs of these workers.

Second, Ureta and Light (1993) show that in the past, it may have been rational for employers to invest less in the retention of women workers, because these workers were more likely to leave the firm for reasons that were unobservable at the time of hire. But in

a more recent birth cohort, they find that it is no longer difficult to identify female non-quitters -- hence there is no justification for using "femaleness" as a screening device among young workers. To the extent that some employers rely on outdated screening devices, women workers may be denied access to jobs with characteristics that they find desirable.

In either case, the aim of this chapter is to examine the empirical evidence regarding the extent to which gender differences in benefits packages appear to reflect employee preferences. In order to address this question, the chapter first lays out the differences between the benefits packages received by male and female workers, and relates these differences to one of the most salient differences between men and women: the fact that in general women continue to bear primary responsibility for "household production". Part II asks whether men and women appear to value similar packages differently. Part III gets to the heart of the matter, and assesses the extent to which gender gaps and benefits packages seem to reflect the voluntary sorting of men and women into different jobs. The limited evidence available suggests that firms that wish to attract and retain female employees can achieve some success by altering their benefits packages. In particular, conditional on worker characteristics such as age and education, more flexible leave and vacation provisions, and access to on-the-job training are linked to reduced turnover among female employees.

Part I: Do Men and Women Receive Similar Benefits Packages?

One way to answer this question would be to add up employer costs for each component of the benefits package, and ask whether employers spend the same amounts on men and women. There are two drawbacks to this approach however. First, detailed information of this kind is not available for a representative sample of U.S. workers (Antos, 1983). Second, benefits packages may differ in terms of their composition, as well as in terms of their cost to employers. Hence, this section will begin with an analysis of whether men and women are equally likely to receive 6 types of benefits: pensions, health insurance, paid sick leave, paid vacations, disability, and training. Legally required benefits are

discussed in part c), below.

Of these benefits, pensions, vacations, and health care account for the largest share of employer costs: The Bureau of Labor Statistics (1994a) reports that in 1993, vacations, health care, and pensions accounted for 3.2%, 6.7%, and 3.0% of payroll, respectively, while sick leave and disability together accounted for 1.1%. The category "other benefits", which includes employee education, accounted for only .2%. These figures imply average hourly expenditures of \$.54, \$1.14, \$.52, and \$.04 in addition to an average hourly wage of \$12.14. The total cost of benefits as a percentage of payroll was 28.9%, of which 9.4% was legally required payments. Although expenditures on sick leave, disability, and training are small relative to total benefit payments, examining this relatively broad package will help us to address the link between benefits packages, worker valuations, and occupational segregation in Parts II and III, below.

a) Composition of Benefits Packages

Pensions are perhaps the most studied element of the benefits package. They are not only a relatively "big ticket" item, they also have important uses as retention devices as discussed in Chapter 22. Many authors have pointed out that on average, women are less likely to be enrolled in private pension plans than men (Beller, 1981; Even and Macpherson, 1990; Galarneau, 1991; Hersch and White-Means, 1991; Kotlikoff and Wise, 1987; Lazear and Rosen, 1987; Moore, 1987; Woodbury and Huang, 1991). In the United States, 55% of male employees were enrolled in a pension plan in 1988, compared to only 45% of female employees; the gap in pension coverage was even larger in Canada where 51% of male workers were covered compared to 37% of female workers (Even and Macpherson, 1994).

However, these raw differences in coverage rates do not take account of the fact that labor market characteristics of male and female workers differ. Because men and women tend to have different characteristics on average, differences in non-wage compensation can arise even when the same benefit formulas are applied to both groups, as the Equal Employment Opportunity Commission's rules require.¹

Table 1 shows male-female differences in the means of some characteristics of workers and jobs that have been shown to be closely associated with levels of compensation. The table focuses only on full-time, full year workers, since part-time workers are much less likely to have benefits coverage.² The table breaks workers down by marital status and number of children, since these variables may affect workers' valuations of benefits packages, as discussed below.

TABLE 1 ABOUT HERE

Table 1 indicates that female workers tend to be younger and to have much less tenure in their jobs than male workers, unless they are single and childless. Married women workers are less educated, while single women workers are more educated than their male counterparts. Finally, female workers are more likely to be non-white than male workers, especially if they are single parents.

Turning to characteristics of the job, we see that female workers are much less likely to be unionized, and much more likely to be hourly workers than male workers. Both being salaried and being unionized increase the probability that benefits are received, other things being equal (Freeman, 1981). Married women workers are also more likely to be in small firms, and less likely to be in large firms than married male workers - though these firm-size relationships are reversed among single workers.

Differences in average firm size for men and women are likely to be particularly important. Smeeding (1983) calculates that the difference between what employees would have to pay in the market for benefits purchased individually and what employers pay averages about 32% of the employer's cost. The difference is biggest for the largest firms, reflecting scale economies in the purchase of benefits.

Hence, it is not surprising that large firms have more generous benefits as shown in Table 2:

TABLE 2 ABOUT HERE

Hence, Tables 1 and 2 suggests that based on personal characteristics and on job

characteristics, one would expect women to be paid less and to have inferior benefits packages relative to men. They also suggest that we might expect the gaps to be greatest among married workers, since the differences in characteristics are greatest among this group.

These hypotheses are explored in Table 3, which shows mean wages and the fraction of workers who receive each of 4 benefits for the same 8 worker groups. Once again, only means for full-time workers are shown. In this table, conventional defined contribution and defined benefit pension plans have been grouped together with 401(k) plans since the latter are an increasingly important type of pension coverage.³

TABLE 3 ABOUT HERE

Table 3 indicates that while women are paid less than men in all four groups, only among married workers are women less likely to receive pension coverage or health insurance coverage. Single women workers are actually *more* likely than single male workers to have sick leave, while male workers are more likely than female workers to have disability benefits regardless of marital status. These differences suggest that much of the raw gap in benefits coverage may be explained by worker characteristics, such marital status. The results regarding paid sick leave are consistent with those of Trzcinski (1991). She finds using a survey of small businesses that the probability that a firm offers paid sick leave rises with the fraction of employees who are female.

In a study of the benefits packages received by workers who took part in the RAND Health Insurance study, Leibowitz (1983) found that in addition to more generous sick leave provisions, 21% of the women had paid vacations compared to 9% of the men. However, this difference was not statistically significant once education and experience were controlled for. Since the incidence of vacations increases with the education and experience of the worker, this result suggests that the women in her sample had more human capital than the men on average. Hence, it is difficult to extend these results to other samples.

Reed and Holleman (1994) examine the incidence of paid vacations, health coverage, and life insurance for a sample of young workers from the National Longitudinal

Survey of Youth (NLSY). The average age of the workers in their sample is 22, and only 23% of them are married. Although they do not report the average number of children, it is likely that many of these people were childless. In this sample, they find that women were actually slightly more likely than men to have all three benefits, a finding that is consistent with the results shown in Table 3. Together, these findings suggest that while gender gaps in benefits coverage are relatively small among single workers, among married workers, women are less likely to have pensions and health insurance, and more likely to have paid sick leave and paid vacations.

While a similar breakdown by marital status is not available for training, Lynch (1992) uses a sample of young workers from the National Longitudinal Survey of Youth (NLSY) to document gender gaps in access to training programs, as shown in Table 4. This information is incomplete as respondents were questioned only about spells of training that lasted at least 4 weeks (though they did not have to be full time). A positive feature of the NLSY data is that it is possible to distinguish between training received on-the-job (a benefit), and training received off-the-job and presumably paid for by the employee. Table 4 shows that this distinction is important. Although men and women were approximately equally likely to have received any training, 5.8% of males received training on-the-job compared to only 3.4% of females. Conversely, only 13% of men received off-the-job training compared to 17% of women.

TABLE 4 ABOUT HERE

A more formal way to test the hypothesis that gender gaps in benefits coverage are explained by worker characteristics is to estimate Linear Probability models of the probability of being covered by each benefit on the complete set of worker characteristics. Logit models produce similar results. A regression that includes a variable equal to one if the worker is female and zero otherwise, yields an estimate of the average effect of "femaleness" on the probability of benefits coverage, holding all other observable characteristics constant. Models that allow the effect of femaleness to vary with the worker's characteristics, (in order to determine whether the penalty associated with being female is

smaller for younger workers, for example), can also be estimated.

The results of following these estimation procedures are summarized in Table 5 for full-time workers. The first row shows that even after controlling for all observable characteristics, women are on average 5% less likely to receive pension coverage, 8% less likely to have health insurance, 3% more likely to have sick leave, and 11% less likely to have disability coverage.⁴ Lynch (1992), presents similar estimates showing that among young workers, men are 2% and 1% more likely to receive on-the-job training and to be apprenticed, respectively, and 3% less likely to receive off-the-job training.

TABLE 5 ABOUT HERE

The second row of Table 5 shows gender gaps for a particular group of workers -- young (25 to 34 years old), single, high school educated workers in firms with between 20 and 99 employees. The gaps are similar to those for the average worker, except that among these young workers there are no significant gender gaps in health coverage, and female workers are even more likely than men to receive sick leave. Row 3 indicates that, as we might expect on the basis of Table 3, gender gaps in pension and health coverage are twice as big among married workers. A comparison of rows 3 and 4 shows that the gender gap in pensions is larger for older workers, probably because average levels of job tenure have been increasing over time among women. Rows 3 and 5 show that gender gaps in benefits coverage among married workers are similar, whether or not workers have children, although married women with children are even less likely than comparable men to have health insurance. And while women are still more likely than comparable men to have sick leave, the gap is narrowed among workers with children.

A comparison of rows 5 and 6 indicates that gender gaps are similar among university educated workers and workers with high school educations. The main exception is that among university educated workers, there is no gender gap in the probability of sick leave. Finally, row 7 indicates that large firms have dramatically smaller gaps in the probability of pension, health, and disability coverage, although women in these firms are still more likely than men to have sick leave.

The regressions underlying Table 5 do not control for one important job characteristic: the worker's wage. This is because wages and benefits are part of the same package and are chosen simultaneously by the worker. Hence it is not appropriate to "explain" benefits using wages or vice-versa. In fact, economic theory suggests that other things being equal, workers should be willing to trade off benefits and wages. That is, there ought to be a negative relationship between the generosity of benefits and wages when all other characteristics of the job are adequately controlled for (c.f. Brown, 1980; Leibowitz, 1983; Rosen, 1986; Smith and Ehrenberg, 1983).

In practice however, there tends to be a strong positive relationship between wages and the generosity of benefits coverage.⁵ One reason is that given a progressive tax system, higher wage workers are more likely to want to have a portion of their benefits in the form of untaxed benefits (Woodbury and Huang, 1991).

Nevertheless, in most data sets the wage is the best measure we have of the "quality" of the job: good jobs tend to have both high wages and generous benefits. Hence, we might wish to add wages to a benefits equation as a proxy for job quality. When this is done, the coefficient on "female" in the equation for pension coverage becomes statistically insignificant, so that among men and women with the same wages there are no differences in the probability of pension coverage. The male/female difference in the probability of health coverage drops to 5%, and the difference in the probability of disability coverage falls to 6%. However, controlling for wages, women are 6% more likely to have sick leave than men. Hence, differences in the probability of sick leave and disability coverage tend to offset each other.⁶

One reason that employers might prefer to offer women sick leave rather than disability, is that under the federal Pregnancy Discrimination Act of 1978, employers must cover maternity-related conditions under existing disability plans. Alternatively, it may be the case that women are less likely to be disabled on the job and hence value sick leave more highly than disability. In summary, this section shows that there are significant gender gaps in the probability of receiving various kinds of benefits that persist when observable

characteristics of workers and firms are controlled for. Moreover, these gaps vary systematically with worker and firm characteristics, although they become much smaller when wages are controlled for.⁷

b) Gender Gaps in the Employer Cost of Benefits

The next question that arises is whether men and women receive benefits that are similar in terms of generosity, given that they do receive the benefit. Several authors have addressed the question of whether the same pension promise is likely to be worth more to a man or to a woman. Wise and Kotlikoff (1987), and Moore (1987) argue that because women live longer on average, a given pension will be worth more to a woman than to a man. However, Lazear and Rosen (1987) argue that in addition to actuarial considerations, the employer cost of pension plans depends on the average salary and average tenure of workers in different groups.

In the first stage of their analysis, they use nationally representative data from the 1979 Current Population Survey (CPS) to estimate the average tenure and salary of male and female workers of retirement age. They find, somewhat surprisingly in view of the numbers shown above, that the expected tenure at retirement is very similar for men and women. However, despite this similarity in expected years of tenure at retirement, they found that the expected salary of a white female worker was only 64% of the expected salary of a white male worker at retirement. This large gap in salary suggests that there will be a large gap in the value of pensions paid to male and female workers, since pensions are generally based on salaries paid in the last few years before a worker retires. The gaps in salary between male and female African-American workers were smaller: At retirement, a typical African-American woman earned 82% of what the typical male earned.

In the second part of their analysis, they ask how typical male and female workers would fare in retirement using detailed information about the pension plans of 172 large corporations from the Bankers' Trust Corporate Pension Plan Study (1980). They find that among whites who receive pensions, the typical female worker's pension is worth 78% of

the typical male worker's, while among African-American's it is worth 92% of the typical male worker's. Hence, the inequality in wages is partially offset by the higher actuarial value of the women's pensions and also by the fact that most plans reward tenure on the job as well as final salary. These results suggest that the main reason that a given pension promise is worth less to a woman than to a man, is that women are more likely to be in low wage jobs. Hence, it is not surprising, that controlling for wages, women are as likely as men to receive pension coverage, as discussed above.

Less information is available regarding the relative generosity of health plans, although some data is available in the May 1988 CPS. Among those covered, married women are only half as likely as married men to have a plan that covers their spouse and children. However, this figure could reflect choices made by women themselves if women and children are covered under spouses' policies. Another index of plan generosity is whether the employer pays the full cost of the health plan. Eighty-five percent of married men report that the employer pays for "some" or "all" of their plan, while only 67% of married women make the same claim. But married women are much more likely to report that they do not know whether the employer pays or not: 30% of married women are in this category compared to 12% of married men. Hence, the difference in reported generosity could be an artifact of the missing data. There were few differences among single people in these reports of plan generosity.

Hersch and White-Means (1991) employ an alternative strategy and use data on the percentage of industry wages that are spent on health benefits (as reported in U.S. Chamber of Commerce, 1989), to impute a value of health insurance coverage to each worker in the CPS. They also impute a value for pension coverage using the worker's salary, along with the average value of pension benefits as a percentage of wages in the worker's industry. They find that these two benefits together are worth \$1.08 to a white male, \$.65 to a white female, \$.87 to a black male, and \$.70 to a black female. These figures are not directly comparable to those cited above, because in addition to the inclusion of health benefits, they reflect the fact that women are less likely to receive pensions and health coverage than men.

However, at .61, the ratio of female to male benefits among whites is almost identical to Lazear and Rosen's estimate of the ratio of *expected* pension wealth among whites of .62. This similarity between the figures for health plans and pensions together and those for pensions alone implies that women are not concentrated in industries with less available or less generous health plans.

Finally, the Bureau of Labor Statistics (1994b, 1994c) reports that there are only small differences in the generosity of plans offered by large and small firms. Among small firms, 37% of individuals had their own health care wholly covered by their employers compared to 39% among larger firms, while 19% of small firm employees had dependents care fully paid for by employers compared to 24% of large firm employees. BLS (1993b) estimates also suggest that conditional on being covered, employees of large and small firms bear similar out-of-pocket costs. Hence, it seems that women are unlikely to have systematically less generous plans, even though they tend to be concentrated in smaller firms.

Turning to sick leave, women in the May 1988 CPS are slightly more likely to report that they receive leave with full pay, but they report a smaller mean maximum number of days: For example, married women report an average of 61 days compared to 87 days for married men. However, the standard deviations are also large (54 days for both married men and women) which reflects a great deal of heterogeneity in the plans. However, once again, there are some differences by firm size, which suggests that women may actually get fewer days than men on average. The BLS (1993a, 1994c) reports that small firms offer an average of 7.7 days paid sick leave after one year, and 10.2 days after 10 years. In contrast, large firms offer 9 days after one year and 17 days after 10 (BLS, 1990).

A final piece of information about benefits costs can be gleaned from Table 4, which showed that conditional on receiving formal on-the-job training or being apprenticed, women were in systematically shorter, and presumably therefore cheaper, programs.

In summary, there is some evidence with regard to pensions that the same pension promise is worth less to a woman than to a man. However, almost all of the difference is

accounted for by the fact that women are likely to have lower wages at retirement. The evidence with regard to the employer costs of other benefits is sketchy, but does not offer much support for the view that benefits received by women are less generous than those received by men, when they are in fact received. A possible caveat is that to the extent that women are concentrated in small firms, they may receive somewhat less generous benefits coverage. Still, variations in generosity appear to be of second-order importance relative to the question of whether the benefit is offered or not.

c) Legally Required Payments

There is little empirical evidence regarding the effects of legally required payments on gender gaps in benefits coverage. But since one quarter of all benefits payments are legally required, some discussion of their likely effects is important. At first blush, legislated payments, which include Social Security, unemployment insurance, and worker's compensation, would appear to be equalizing since the law is gender-blind.

But if female employees tend to value these benefits differently than male employees, then increasing the share of compensation taken in this form can be expected to have complicated effects. For example, actuarial considerations suggest that other things being equal, increases in the generosity of social security will make work more attractive to women than to men. Similarly, since women are at higher risk of losing their jobs, more generous unemployment insurance may also tend to make work attractive. However, it is not obvious what effect increases in female labor supply would have on the tendency of men and women to sort into different jobs. Presumably both men and women would be more likely to enter jobs without pension coverage, or with unstable employment, than before. It is also unclear how much of the increase in required payments would be offset by reductions in wages or other benefits. For example, Fishback and Kantor show that employers were able to pass a significant fraction of costs due to worker's compensation onto employees in the form of lower wages (Fishback and Kantor, 1994).

Other types of legislative interventions into compensation packages may

inadvertently exacerbate gender differences in benefits coverage by exempting small firms (Trzcinski and Alpert, 1990). Since women are over-represented in small firms, these measures tend to leave many women uncovered. The Family and Medical Leave Act of 1993 falls into this category since employers with fewer than 50 employees are exempted from the law. BLS (1994) reports that in 1992 only 18% of small firms offered unpaid maternity leave, while only 8% offered unpaid paternity leave.

Part II: Employee Valuations of Benefits Packages

If data about employer costs of benefits packages are sketchy, then data about employee valuations of benefits packages are even scarcer. Yet this is an essential piece of the puzzle. The arguments laid out in Chapter 22 suggest that an important reason for the growth of benefits as a fraction of total compensation is that certain benefits can be provided by employers more inexpensively than they can be purchased by employees in the marketplace. Hence, the substitution of benefits for wages can make both employers and employees better off. However, in practice some employees are likely to value certain benefits more highly than others. How can we tell whether these differences in tastes are systematically related to gender?

One answer is to see whether women are systematically more likely than men to turn down offered benefits. The May 1988 CPS asked workers both whether their firm offered pension and health coverage and whether they were covered (comparable information is not available for other benefits). Table 6 compares these values. For convenience, coverage numbers are reproduced from Table 3. Table 6 shows that gaps in offered coverage are much smaller than gaps in actual coverage. For example, married women with children are 13% less likely to have pension coverage than men in the same category, but they are only 8% less likely to work at a company with a pension plan. These women are 18% less likely to have health insurance coverage, but only 5% less likely to be at a firm that offers a health plan.

TABLE 6 ABOUT HERE

In order to explore why men and women are not equally likely to be covered under offered pension plans, I examined the gender gap in coverage for those with ten years of experience or more. Federal law would have required that the vast majority of these employees be vested under the offered plan (Hoopes and Maroney, 1992). For the "married with children" group discussed above, women were 7% less likely to be covered by a plan, and 5% less likely to be in a job that offered a pension plan.

Hence, about half of the overall gender difference in pension coverage can be attributed to differences in tenure. However, among the group with 10 years of experience or more, the gender difference in pension coverage appears to be mainly due to the fact that women are less likely to be in jobs that offer plans. The probability that a plan is offered is in turn closely related to the wage -- once the wage is controlled for, there is no significant difference in the probability that a pension is offered.

Even and Macpherson (1994) offer a complementary analysis of pension offers and participation rates among men and women. They find that between 1979 and 1993, male offer rates rose by 2.2 percentage points while female offer rates rose by a huge 18.4 percentage points. However, participation rates fell over the same time period by 11.1 percentage points for men and 17.3 percentage points for women. The net effect was that male coverage fell 4.9 percentage points while female coverage rose 8.3 points over this period. Some of this decline in participation is due to the increasing importance of 401(k) plans, which have lower participation rates than traditional plans (Even and Macpherson, 1994).⁸ In any case, the numbers suggest that more than half of the women who were offered plans, did not find participation attractive.

The difference between health coverage, and the availability of a health plan can be further examined using the responses to a question addressed to respondents who were not covered even though their employers had a plan. Female respondents in this situation were about 10% less likely than male respondents to answer that they were ineligible for the plan, and 12% more likely to answer that they were covered by another plan. Only about 10% of

married men and women, and 19% of single men and women said the offered plan was too expensive. Hence, the large gender differences in health coverage among married workers appear to be largely due to voluntary choices on the part of women who do not value the coverage because they are already covered under their husband's plans.⁹ Given that some people are covered by plans that are completely paid for by their employers, and thus have little incentive not to take up offered coverage, these figures probably represent an underestimate of the number of workers with duplicative coverage that is of little value to them.

Perhaps the most discussion of possible gender differences in the valuation of benefits has occurred with respect to paid sick leave. Current gender roles dictate that it is most often women who take time off from work to care for newborn or sick children, elderly parents, and other family members. Conventional wisdom has it that married women and single women with children often use their own sick days for this purpose if other types of paid family leave are not available (Trzcinski, 1991). Hence, women might value leave provisions more highly than men. There is, however, little direct evidence on this question, although some work has been done regarding the value of maternity leave.

Using data from the U.S. (the NLSY) and U.K. (the National Child Development Survey) Waldfogel (1994) shows that women who take maternity leave and return to the same firm, suffer much smaller wage losses than women who leave the firm when they give birth and later move to another. Since it is possible that women are more likely to take maternity leave when they have high wages (rather than *vice-versa*), she also estimates models that control for whether or not the firm offers maternity leave.¹⁰ The latter model suggests that an American woman's wages are 4% higher if she is able to take maternity leave and return to the same firm after the birth. Previous research suggests that these women's wages might eventually catch up to what they would have been without the interruption (Mincer and Polachek, 1978). But, a leave policy that enables a woman to stay with her employer is likely to be worth a considerable amount to a female employees in terms of avoidance of lost wages.

Gruber (1994) takes a somewhat different approach and examines the extent to which wages for women of child-bearing age fell when several states mandated that firms provide maternity leave in the late 70s and early 80s. He finds that wages adjusted almost completely, and that there was little loss of employment among this group, which suggests that women are willing to pay at least the employer's cost in order to obtain this benefit.¹¹

Finally, Reed and Holleman (1994) show that in their sample of young workers both men and women are less likely to leave their jobs if they have paid vacations, other things being equal. However, the coefficient is twice as big for female workers as for male workers, suggesting that women value this benefit more highly than men.

Little information is available on the question of whether men and women might value disability plans or training programs differently. It is worth noting, however, that there may be interactions between valuations of different types of benefits. For example, if there is no leave plan, and a woman knows that she may be forced to leave her employer in the next few years because of family responsibilities, then she may not value firm-specific training or pension coverage very highly.

Part III: Are Gender Gaps the Result of Optimal Matching?

Parts I and II show that there are gender gaps in benefits coverage, and that it may also be true that men and women tend to value some benefits differently. These two phenomena are quite likely to be related to each other and to the fact that men and women tend to hold different jobs. The question posed in this section is whether gender differences in the composition of compensation packages reflect optimizing choices of workers, rather than an inability to find employment with desired compensation packages? It is possible, that conditional on their observable characteristics, men and women tend to be in different jobs because they choose jobs with characteristics, including benefits packages, that they value. Since women typically bear primary responsibility child-rearing, it makes sense that women might choose jobs with characteristics that were compatible with this role (Becker, 1985). Leave provisions could be viewed as one such characteristic.

However, Table 5 provides relatively little support for the hypothesis that gender gaps in benefits coverage are primarily due to choices made by women who wish to specialize in household production. First, young, single, childless women (the baseline) are about as likely as women generally to be offered pension coverage, but they are less likely to be offered health coverage, and about equally likely to have disability coverage. Yet, they are twice as likely as the average woman to have sick leave. It is possible that this last result reflects worker preferences (i.e. that women are more likely than men to take sick leave regardless of marital status¹²), but if so, this preference would not appear to have anything to do with women's roles as wives and mothers. The gender gaps in benefits coverage (and wages) are especially noteworthy for this group given that there is no significant gender difference in tenure on the job.

Secondly, married women 25 to 34 suffer greater gaps in benefits coverage and wages than single women, whether or not they have children. If women with children can be expected to be most intensively involved in household production then this observation is inconsistent with the "specialization in household production" theory outlined above.

Thirdly, a comparison of gender gaps among married, university-educated workers with children to gender gaps among similar workers with only a high school education shows that for most individual benefits, the gender gap is just as large among the highly educated. Since more educated women have made greater investments in human capital and can be shown to have a greater commitment to market work, (and arguably have somewhat different tastes), this observation also appears to be inconsistent with the theory that gender gaps are primarily a reflection of worker preferences.

If gender gaps do not reflect worker preferences, a possible explanation is that some employees cannot find employers who offer the desired benefits packages. Take as a starting point, Lynch's (1992) observation that employers are less likely to offer on-the-job training to young women than to young men. She also shows that young women are more likely than young men to seek off-the-job training. This finding strongly suggests that women who are frustrated in their attempts to obtain training from their employers seek training at their own

expense. Lynch (1991) documents the fact that women who received on-the-job training were significantly less likely to leave their employers than women who received no training, while those who received off-the-job training were significantly more likely to leave. And as discussed above, Reed and Holleman found that paid vacation provisions had a greater negative effect on turnover among women than among men. Similar analyses have yet to be undertaken for other fringe benefits.

The hypothesis that women are leaving employers who do not offer them the same opportunities as are offered to men, fits nicely with Loprest's (1992) finding that although young women change jobs as frequently as young men, their wages grow only half as quickly with job changes. That is, young women appear to be changing jobs when it is less advantageous for them to do so. To the extent that valuable workers are lost to the firm, this kind of turnover is costly to firms as well as to workers.

Part IV: Discussion and Conclusions

The evidence reviewed in this chapter shows that there are gender gaps in benefits coverage, and that there may also be gender-related differences in the way that employees value similar benefits packages. However, it seems unlikely that the observed gaps primarily reflect differences in employee preferences. Instead, the evidence suggests that some turnover among young women results from an inability to find jobs that offer satisfactory benefits, at least in terms of training opportunities and paid leave/vacation time. This turnover is costly to employees, since the wages of young women do not rise as quickly with job changes as those of young men. It is also likely to be costly to employers.

A possible solution to the problem of offering benefits packages that will attract able workers regardless of gender (and other personal characteristics that influence tastes), is to offer flexible benefits (e.g. cafeteria plans). A survey by the Employer's Council on Flexible Compensation found that the number of major employers adopting these plans had grown from 8 in 1980 to 800 in 1989 (Pilenzo, 1989). One of the primary reasons given for offering such a plan is the need to meet the needs of a changing workforce, which includes

increasing numbers of working women, employees with working spouses, and working single parents (Johnson, 1986).¹³

A recent Hewitt Associates Survey of 472 employees found that flexible benefits plans were effective in attracting and retaining employees (Lissy, 1993). And the Employer's Council survey cited above found that 87% of the women and 61% of the men who participated in flexible plans said that the plan had influenced their decision not to seek job changes (Pilenzo, 1989).

On the other hand, cafeteria plans have drawbacks from the point of view of employers. They may be costly to administer, and employers may lose leverage with insurance carriers if they cannot promise a certain number of enrollees; they encourage adverse selection; and the tax code's restrictions on creating benefit plans that favor the highly compensated may mean that in fact it is not possible to allow employees a free hand in designing a benefits package.¹⁴ Moreover, the definitive study linking the adoption of such plans to a reduction in turnover among women (and other groups) has not yet been executed.

Hence, the findings reported in this chapter are best viewed as preliminary and suggestive. Human Resource managers who find that their firms are having difficulty attracting or retaining female employees should consider the possibility that relatively small changes in the composition of benefits packages, such as opening training programs to women, or offering more flexible leave policy, could have a positive effect on recruitment and retention.

**Table 1: Worker Characteristics by Gender,
Marital Status, and Presence of Children**

	<u>Married, Separated, Widowed</u>				<u>Single, Divorced</u>			
	Children		No Children		Children		No Children	
	Male	Female	Male	Female	Male	Female	Male	Female
Age	37.3	35.5	45.0	42.3	36.2	35.0	31.2	33.7
Years of Education	13.5	12.8	13.0	12.9	12.4	12.8	13.2	13.4
Tenure on the Job	8.6	6.0	12.1	8.0	9.3	5.5	5.2	5.3
Fraction Non-White	.07	.13	.06	.08	.03	.21	.09	.11
Fraction Union Worker	.21	.08	.22	.10	.23	.12	.22	.13
Fraction Hourly Worker	.48	.60	.47	.54	.60	.58	.60	.55
Firm Size < 100	.28	.33	.28	.35	.40	.31	.38	.32
Firm Size 500+	.51	.41	.50	.41	.39	.45	.38	.44
# Observations	2399	1266	1618	1274	62	242	1208	980

Source: Currie (1993). Computations are from the May 1988 Current Population Survey.

Table 2: Employee Benefits in Large vs. Small Firms

	Firms with < 100 Emp.	Firms with >= 100 Emp.
% OF EMPLOYEES COVERED BY:		
Pensions	45	78
Paid Vacations	88	97
Health Insurance	71	82
Paid Sick Leave	53	65
Disability Insurance	21	41
Job Related Educational Assistance	36	69*

Source: Bureau of Labor Statistics (1994b, 1994c). An asterisk indicates that the source is BLS (1990).

Table 3: Wages and Benefits by Gender, Marital Status, and Presence of Children

	<u>Married, Separated, Widowed</u>				<u>Single, Divorced</u>			
	Children		No Children		Children		No Children	
	Male	Female	Male	Female	Male	Female	Male	Female
Hourly Wage	13.0	8.5	13.0	8.9	11.4	9.0	10.1	8.8
Has Pension/401(k)	.67	.54	.70	.54	.52	.54	.48	.51
Has Health Insurance	.87	.69	.86	.72	.79	.81	.77	.79
Has Sick Leave	.72	.73	.72	.72	.63	.72	.60	.71
Has Disability	.67	.50	.65	.49	.68	.51	.58	.53

Source: Currie (1993). Tabulations based on the May 1988 Current Population Survey.

Table 4: Gender Gaps in Training

	White Males	White Females
# with On-the-Job Training	77	37
# with Off-the-Job Training	177	185
# Apprenticed	41	9
Duration On-the-Job Training	34.6	24.7
Duration Off-the-Job Training	43.5	39.5
Duration of Apprenticeship	74.8	18.9
Sample Size	1320	1090

Source: Lynch (1992). Data is from the National Longitudinal Survey of Youth. In order to be included in the sample, workers had to have valid wage data in both 1980 and 1983, but no restrictions were placed on their hours of work.

**Table 5: Gender Gaps in Benefits Coverage,
for Workers with the Same Characteristics**

TYPE OF BENEFIT:	Pension	Health	Sick Leave	Disability
1. Average Gap for all Workers	-.05	-.08	.03	-.11
2. Gap for Baseline Worker	-.0507	-.10
3. Same as 2 but Married	-.09	-.16	.08	-.12
4. Same as 3 but 55-64	-.14	-.16	...	-.09
5. Same as 3 but 2 Children	-.10	-.20	.05	-.11
6. Same as 5 but University ed.	-.09	-.20	...	-.14
7. Same as 5 but Large Firm	-.01	-.08	.08	-.08

Source: Currie (1993). The "baseline" estimates refer to 25 to 34 year old workers with a high school education who work in firms with 20 to 99 employees. Estimates are based on the Benefits Supplement to the May 1988 Current Population Survey. Dots indicate that there is no statistically significant difference between men and women.

**Table 6: Offers vs. Takeup of Benefits by Gender, Marital Status,
and Presence of Children**

	<u>Married, Separated, Widowed</u>				<u>Single, Divorced</u>			
	Children		No Children		Children		No Children	
	Male	Female	Male	Female	Male	Female	Male	Female
Pension Offered	.74	.66	.76	.65	.60	.66	.61	.67
Pension Coverage	.67	.54	.70	.54	.52	.54	.48	.51
Health Offered	.92	.87	.92	.86	.86	.86	.84	.86
Health Coverage	.87	.69	.86	.72	.79	.81	.77	.79

Notes: See Table 3.

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ENDNOTES

1. It is not obvious what effect rules will have any effect of the probability that a pension is offered. Suppose that in the absence of regulation, firms would pay women smaller monthly benefits. The EEOC policy will not necessarily raise costs since the firm can pay a benefit that is the weighted average of what it would have paid to men and women. However, this pension promise will be worth less to men, than one that was based on actuarial considerations.
2. Of course, part-time workers are also more likely to be female. By focusing on full-time workers, the analysis implicitly assumes that women who select part-time work "voluntarily" sacrifice benefits in order to obtain more flexible hours. Full-time, full-year workers are defined here as those who work 35 hours per week or more, at least 50 weeks per year (where weeks per year includes weeks of paid vacation).
3. Although these numbers are based on the 1988 CPS, the most recent evidence available, from the 1993 CPS Employee Benefits Survey, suggests that there has been little change. For example, in 1993 56% of men had pension coverage compared to 57% in 1988, while the comparable figures for women were 47.9% in 1993 and 45.1% in 1988 (Even and Macpherson, 1994). Surveys of employee benefits have been conducted in 1983, 1988, and 1993.
4. The regressions underlying Table 5 included marital status, number of children, a dummy variable for non-white, 4 age categories (25 to 34, 35 to 44, 45 to 54, 55 to 64), 4 educational categories (some high school, high school, some college, and university degree), and 5 firm size categories (20 to 99, 100 to 499, 500 to 999, 1000+, and don't know). The models in rows 2 through 5 included interactions of the female dummy with all these variables. Including dummy variables for union and hourly workers did not affect the results reported here. See Currie (1993) for the full set of regressions.
5. Montgomery, Shaw, and Benedict (1992) do however find a one-for-one tradeoff between the present value of *lifetime* wages and pension coverage.
6. These regressions are shown in Currie (1993) and are based on the May 1988 Current Population Survey. Lazear and Rosen (1987) report similar results for pension coverage using the 1979 CPS.
7. Currie and Chaykowski (1995) report similar results for Canada. They find using contract-level data that bargaining units with a high proportion of female workers are less likely to have pension coverage and more

likely to have leave provisions, even when the wage is controlled for in an instrumental variables framework. They also show that the gender gap in pension coverage exists in individual-level data and persists when wages are controlled for, although it becomes much smaller.

8. These plans have shown tremendous growth over the past 10 years. Whereas in 1983, only 4.4 million employees reported participation in a 401(k), by 1993, 43% of all workers offered pension plan had a 401(k) plan as the primary plan (Even and Macpherson, 1994).

9. This discussion also raises the possibility that some women turn down offered pension coverage because they are covered by their husband's plans. ERISA requires that survivor benefits be offered.

10. Waldfogel also estimates instrumental variables models using whether or not the firm has a maternity leave program as an instrument for whether the woman took such leave.

11. If the labor supply of married women were perfectly elastic, then employers would bear all of the costs. However, most estimates of the labor supply of married women suggest that it is reasonably elastic.

12. For example, Leibowitz (1983) reports that in her data, 5.1% of women employed full-time lost work time due to illness in May 1978 compared to only 3.4% of men. However, men had lengthier absences for each incident. The BLS (1993c) reports that among workers with jobs who were not a work in November 1993, 29% of the men were ill compared to 35% of the women.

13. Other reasons given for the adoption of these plans include educating employees about their benefits, and cost management.

14. The problem is that low wage employees prefer cash to benefits, while high wage employees are likely to prefer benefits for tax reasons.