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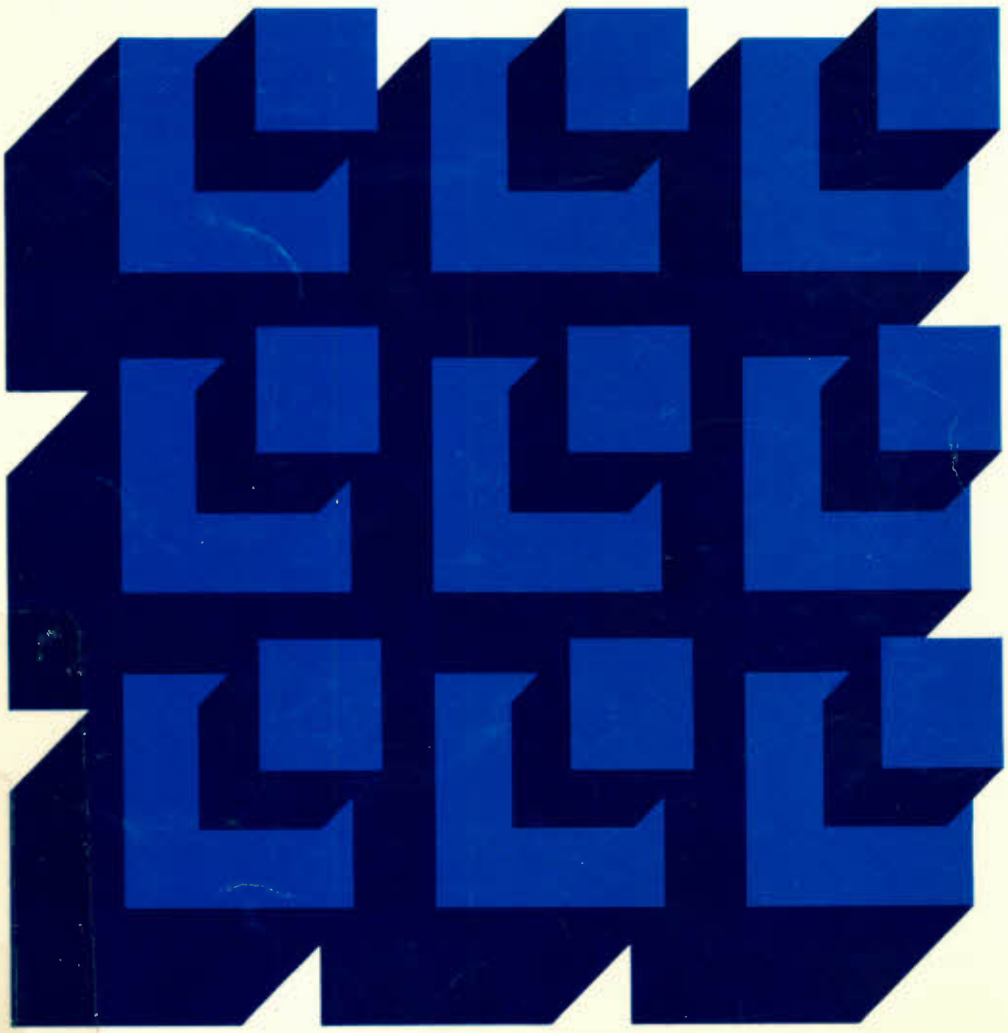

DISCUSSION PAPER NO. 252

Equal-Pay-for-Equal-Work Legislation in Canada

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FOREWORD

Perhaps the most remarkable change affecting Canadian labour markets over the last three decades has been the steady increase in the number of women in the workforce. A larger proportion of women with both preschool and school-age children are now in the labour force, either part-time or full-time. A virtual revolution has taken place in the proportion of those who undertake careers requiring postsecodary education. Particularly notable has been the growth in the number of women in the fields of medicine, law, business, public administration, and computer programming.

Despite these advances, barriers still exist for women in the economy, placing them at a disadvantage in labour markets. It is an open question, too, whether, in a future where there will likely be less economic expansion than in recent decades, women will be able to maintain steady growth in labour force participation and in the development of new career paths outside traditional fields.

Unlike some other disciplines, the Canadian economic profession has paid little attention to the issues raised by the increased participation of women in the economy. In

venturing into this uncharted area, the Economic Council of Canada has set itself objectives that are designed to establish a basis for further research in this field, outside or within the Council. These objectives are:

- to outline the major changes that are occurring in female labour force participation;

- to identify the occupations where women have registered losses or gains;

- to analyse the conditions that have resulted in such advances or losses; and

- to suggest policies and measures, based on its research, that are aimed at fostering conditions that will promote the equal advancement of women in the economy.

It is with these objectives in mind that a modest research program on the role of women in the economy was developed at the Council, of which this essay is part. Needless to say, the Council does not expect to find solutions for all the special problems facing women. Nevertheless, we do hope that studies such as this will provide some small contribution to the understanding of, and knowledge about, the activity of women in labour markets.

In conclusion, it should be stressed that this discussion paper, like the other authored studies in our work program, does not reflect the consensus views of the Members of the Economic Council of Canada, it is published under the authority of the Chairman of the Council as a professionally competent and useful contribution to discussions about an important public policy issue. The content of this monograph is strictly the personal responsibility of the author.

David W. Slater
Chairman

RÉSUMÉ

On a abondamment montré, depuis une vingtaine d'années, qu'il y a des écarts de rémunération entre les hommes et les femmes sur le marché du travail canadien. Il est intéressant de se demander si ces écarts sont attribuables aux apports différents des uns et des autres ou à une inégalité quelconque dans le mode de traitement.

Dans ce document l'auteur analyse les raisons pour lesquelles les salaires moyens des femmes pourraient différer de ceux des hommes. D'abord, les femmes ne sont pas également représentées dans tous les secteurs de la main-d'oeuvre, elles cherchent moins que les hommes à faire carrière sur le marché du travail, leur formation diffère de celle des hommes et elles restent moins longtemps sur le marché du travail.

L'auteur décrit ensuite la législation pertinente actuellement en vigueur au Canada. Il existe aux niveaux fédéral et provincial des lois qui reconnaissent le principe de l'égalité des salaires, à travail égal. En outre, la formulation plus ambiguë "à travail de valeur égale, salaire égal" figure dans la Loi canadienne des droits de la personne.

L'auteur estime que les arguments théoriques contre le principe du salaire égal pour un travail égal sont discutables, mais qu'il continuera de subsister des salaires différents pour le hommes et les femmes sur le marché du travail. On peut attribuer cet écart à la formation différente des femmes et à leurs activités en dehors du marché du travail. Malgré cela, il importe de reconnaître la contribution des femmes à la vie économique, tant au sein de la population active qu'à l'extérieur, et de chercher constamment à abolir les disparités de traitement selon le sexe dans les écoles et en matière de régimes de retraite. La législation actuelle devrait être appliquée de façon à couvrir les cas de discrimination constatés.

ABSTRACT

Differential compensation for men and women in the Canadian labour market has been documented over the last 20 years. It is an interesting question whether this difference can be attributed to differential inputs by men and women or to some form of unequal treatment.

This paper discusses the reasons why the average wages of women might differ from those of men. The reasons include their different representation in different parts of the labour force, their different commitment and training, and the shorter time that women spend in the labour force throughout their lives.

Current legislation in Canada is described. Equal-pay-for-equal-work are now in existence, both federally and provincially; and the more ambiguous "equal pay for work of equal value" is included in the federal Human Rights Act.

It is concluded that the theoretical arguments against equal pay for equal work are unsound but that we shall continue to observe different wages for men and women in the labour force. This differential can be attributed to the different training and extra labour market activities of

women. In spite of this conclusion, it is important to provide recognition of women's contributions to the economy, whether inside or outside the labour market, and to continue work to eradicate differences in the treatment of both sexes in the schools and with respect to pension plans. Current legislation should be enforced to deal with cases of discrimination that are found to exist.

ACKNOWLEDGMENT

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1 STATISTICAL EVIDENCE ON MALE AND FEMALE INCOMES

It has been reasonably well documented that Canadian men and women are compensated differently in the labour market.

Holmes (1974), on the basis of the Labour Force Survey for 1967, concluded that the expected lifetime earnings of full- and part-time female workers in Canada amount to only 41 per cent of those of male workers. If adjustments are made for full-time work, occupation, marital status, and class of worker, this figure rises to 56 per cent. Haessel and Kuch (1979) noted that employment income accounts for about 87 per cent of all income received by individuals; hence any significant distribution effects pertaining to employment income will probably result in differences in the distribution of total income. The purpose of their study was to "explain observed differences in employment incomes of individual Canadians" (p. 15). They used Canadian 1971 Census data and built on Podoluk's (1968) study of 1961 Census data. Haessel and Kuch, like Holmes, used regression analysis. Table 1-1 and Chart 1-1, based on the 1961 and 1971 Census, respectively, are reproduced below.

Table 1-1 and Chart 1-1 indicate again that the expected incomes of women are well below those of men of similar education and age.

Table 1-1

Percentage Distribution of Wage Earners in Current Labour Force by Sex and Size of Wages and Salaries, Year Ending May 31, 1961

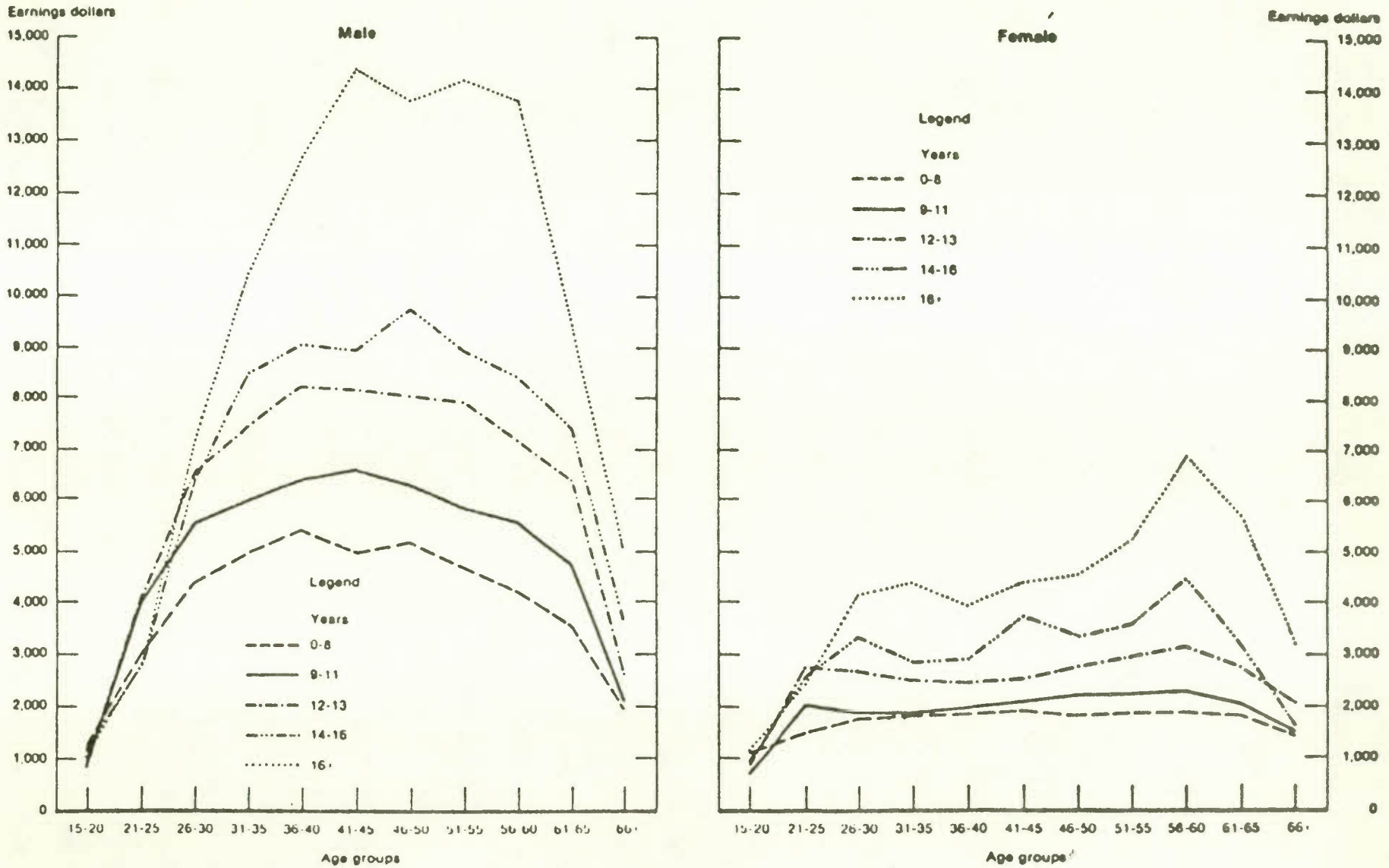
	All wage-earners		Full-year workers[1]	
	Male	Female	Male	Female
	(Per cent)			
Income group:				
Under $1,000	9.6	25.2	0.8	4.6
$1,000 - $1,999	11.0	25.1	3.9	22.5
$2,000 - $2,999	15.6	26.4	13.4	37.5
$3,000 - $3,999	22.1	15.8	26.2	24.3
$4,000 - $4,999	18.7	4.8	24.4	7.3
$5,000 - $5,999	10.6	1.5	14.3	2.2
$6,000 - $6,999	5.2	0.6	7.2	0.9
$7,000 - $9,999	5.0	0.5	6.9	0.7
$10,000 and over	2.1	0.1	2.9	0.1
Total	100.0	100.0	100.0	100.0
Average wages and salaries	3,679	1,995	4,446	2,620
Median wages and salaries	3,624	1,988	4,234	2,610

1 Working 49 to 52 weeks during the previous year and usually working 35 hours or more per week.

Source DBS, 1961 Census of Canada, Vol. III, Part 3, Earnings of Wage-Earners by Marital Status and Age (Cat. No. 94-536), Table 15, for columns 1 and 2; Vol. VII, Part 1, Earnings and Income Distribution (Cat. No. 99-524) for columns 3 and 4. [This table is a reproduction of Table 4-3 in J. Poduluk, Incomes of Canadians (Ottawa: Dominion Bureau of Statistics, 1968).]

Chart 1-1

Geometric Mean Earnings of Population by Sex, Age Group and Years of Education for Canada, 1970



Source 1971 Census of Canada, Public Use Sample Tapes. [This chart is a reproduction of Chart 2-1 from Haessel and Kuch, An Analysis of Earnings in Canada, (Ottawa: Statistics Canada, 1978), p. 23.]

Further evidence is available in Gunderson (1976), Robb (1981), and Labour Canada's publication entitled Women in the Labour Force: Facts and Figures (1977), and also in Gunderson and Jain's contribution to the British book entitled Women and Low Pay; see Sloane (1980).

Gunderson (1976) used 1971 Census data to document the earnings gap between men and women. He showed that, over all occupations, female full-time workers earn 59 per cent as much as their male counterparts; this result is quite consistent with that derived by Holmes.

Gunderson (1975), in another paper that focused on the impact of the 1969 equal-pay-for-equal-work (EPFEW) legislation, examined data on the number of men and women working at the same occupations in the same establishments. His data were restricted to individuals working in Ontario. He regressed the differential between male and female salaries on the union status of the workers, the size of the company, the size of the city in which the company operates, the variability of wages in a particular occupation, and the structure of any incentive pay schemes. Since he was examining cases of men and women in the same occupation, he did not include education, training, or experience in his explanatory variables. Gunderson found that male wages exceeded female wages by an average of 22 per cent in identical jobs. The existence of an incentive pay system

reduced this differential by 8 percentage points, and it was reduced by 10 percentage points in an establishment with a union. The differentials were smaller in larger establishments, but they were larger in smaller towns and cities. Upon examining the impact of the EPFEW legislation, he found that the wage differential in 1968 and 1969 was not significantly different.

Shapiro and Stelcner (1981) addressed themselves to the dual question of the earnings differentials between men and women and between French- and English-speaking Canadians. Again, they used the 1971 Census data. They examined the earnings of Quebec workers based on their mother tongue and their ability to speak English or French. They found that both men and women who spoke only French earned less than those who spoke only English. Furthermore, there was no advantage to being bilingual as opposed to speaking English only. Men who spoke only English earned higher wages than those who spoke only French, but this was not the case with women.

Shapiro and Stelcner observed that the Quebec labour market is characterized by a considerable degree of occupational segregation by sex, and further segregation by linguistic category showed that Francophone and Anglophone women were rarely found in managerial/professional occupations. They concluded that the occupational segregation accounts, in large part, for the lower earnings of women, regardless of

their linguistic attributes. They also concluded that linguistic earnings differences were largely an "issue" for highly educated men.

Robb (1978) also examined the earnings differential between Ontario men and women on the basis of the 1971 Census data. She estimated the earnings functions for men and women separately and then decomposed the earnings into those attributable to education, age, occupation, industry, training, marital status, and weeks and hours worked. The differentials between male and female earnings that remain after all these variables have been accounted for she ascribed to "discrimination." Robb restricted her data to Canadian-born workers in urban Ontario who worked more than 30 hours a week and 40 weeks per year. She found that the logarithm of male earnings is 59 per cent higher than that of female earnings when occupation and industry are taken into account and 75 per cent higher when they are not. These are the findings for individuals under 30 years of age; the figures are considerably lower for individuals over 30.

Recent data from the 1981 Census indicate that, despite some progress over the last few years, a significant earnings gap still persists. Earnings for women, after correction for differences in the number of hours worked, were 72 per cent of men's salaries in 1980, compared with 67 per cent in 1970; see Economic Council of Canada (1983).

If we accept that, in the aggregate, women in Canada receive lower wages than men do, then we need some explanation as to why this is so. Depending on that explanation, legislative or other remedies may be indicated to redress the imbalance.

2 EQUAL PAY LEGISLATION IN CANADA

This section discusses the three types of legislation currently in effect - namely:

1) Equal-pay-for-equal-work legislation;
2) Equal-pay-for-work-of-equal-value legislation; and
3) Affirmative action programs (often not legislated in Canada, but voluntary).

These are ranked in order of their ease of definition, with equal pay for equal work being quite precisely defined. Equal work refers to identical jobs in the same establishment, performed by two different workers. The jobs must be the same in all dimensions and, for all intents and purposes, identical.

Equal-pay-for-equal-work legislation mandates that such jobs should receive equal remuneration. Work of equal value involves two jobs that may differ in their description but that are regarded by the employer as contributing equally to the establishment. Such jobs need not have the same titles or job descriptions nor even be in the same establishment. In economists' terms, such jobs would display equal marginal productivity.

Affirmative action programs do not mandate equal remuneration but do attempt to encourage the placement of certain groups in occupations and industries where they have been underrepresented in the past.

Workers in Canada are covered under the labour code of the province in which they work unless they work in an industry that falls under the jurisdiction of the federal government, in which case they are covered under federal statutes.

Federal jurisdiction arises from the federal government's right to regulate industries of a national, international, or interprovincial nature. These include such enterprises as airlines, grain elevators, feed mills, and uranium mines. The majority (more than 90 per cent) of Canadian workers are covered by provincial legislation. For instance, in 1976 the number of female workers covered by federal legislation (134,000) was slightly higher than that of the female labour force in Nova Scotia (121,000) and slightly lower than that in Saskatchewan (141,000); see CAALL (1977), p. 17. Even though equal pay legislation has existed at the federal level since 1956, it has had an impact on a very small proportion of the labour force, as noted by Gunderson (1975).

In Canada, historically, the issue of equal pay for equal work has revolved mainly around the question of different salaries, depending on the sex of the worker, although the question of discrimination has also arisen with respect to Francophones.

Acceptance of the notion of equal pay for equal work, although appearing to be unexceptionable, has not been without problems. Since the beginning of the century, payment for work done has not been regarded as compensation for a worker's productivity but, instead, has been in recognition of the financial responsibilities of the recipient. To quote from the Department of Labour's 1959 publication Equal Pay for Equal Work:

> Fair and reasonable though such a wage policy (equal pay for equal work) would seem to be, the practice of paying women less than men doing the same work remains widespread. One of the principal arguments advanced in support of lower wages and salaries for women is that in our society the man is traditionally the breadwinner. To him falls the responsibility of providing for the family, and his rate of pay is expected to reflect his responsibilities. It is assumed that women workers do not carry family burdens and therefore will be willing to accept lower pay.1

According to the foregoing document (p. 4), the earliest support for the concept is found among the principles published by the Toronto Trades and Labour Council in 1982. This view of the appropriate wages for women was not confined to Canada, however. Mendelsohn (1979) stated that at the

beginning of the century in Australia, women's wages were set by two principles - namely, "needs" and "class of work" - which resulted in women's wages averaging about half those of men. The "needs" criterion can be illustrated by the 1919 judgment of the New South Wales Board of Trade on a living wage for adult female employees. As Mendelsohn pointed out, "they decided that the female employee should not be considered as having a responsibility beyond supporting herself. They fixed the minimum wage at $3 per week, to cover the cost of living of the adult female of the poorest class who was maintaining herself, but had no responsibility and was living away from home in lodgings. Average male wages at that time were $7.67 per week."[2]

Legislation concerning equal pay for equal work has been passed in many western countries.[3] In Canada, since 1957, eight provinces - Alberta, British Columbia, Manitoba, Nova Scotia, Ontario, Prince Edward Island, Saskatchewan, and New Brunswick - have enacted equal pay laws, and the federal Parliament passed legislation in 1956.

Equal-pay-for-equal-work legislation is designed to cover all workers in the same establishment, to avoid the problem of differing demand and supply conditions in different regions and industries. The provincial statutes are called either labour standards acts or human rights acts and are usually enforced by the provincial Human Rights

Commission or the labour standards branches of the various Departments of Labour. Only in Saskatchewan is enforcement assigned to the Women's Division (a branch of the Department of Labour).[4] The legislation is quite restrictive, but the laws do not deny that differential pay may recognize such factors as seniority, merit, or the quantity and quality of production. The notion of equal pay does not encompass equal fringe benefits in Quebec, Manitoba, and the Northwest Territories.

Domestic workers are excluded from the legislation in Newfoundland, Prince Edward Island, Nova Scotia, and the Northwest Territories, as are employees in nonprofit organizations in Prince Edward Island and the Northwest Territories. Employees in entirely family-run enterprises, as well as farm labourers, are excluded in Saskatchewan. The exclusion of domestic workers and employees in family-run organizations is consistent with a lot of other labour legislation that regards these employment situations as special cases. It is likely, however, that many of these workers are female and hence not protected by the legislation available. Such areas are those in which the employee-employer relationship may be somewhat anomalous, where the legislation would be difficult to implement. Aside from those exemptions, the legislation applies, in the provinces, to all members of the labour force; there are no exceptions under the federal statutes.

The legislation is not uniform in its definition of equal work, since a few jurisdictions allow for some substitutability between different components in a job - for instance, the trade-off of more skill for less effort. In most provinces if any one dimension of the jobs being compared is judged to be unequal, then the jobs themselves are, by definition, unequal. Flexibility is allowed only in the Northwest Territories and in New Brunswick. Clearly, in all these cases the definition of equal work restricts the types of cases that are covered by the legislation. The legislation would have much wider applicability if the definition of equal work could be relaxed to include "similar" work or work of equal value. Although it appears self-evident, for both equity and efficiency reasons, to those trained in neoclassical microeconomics that workers should receive their marginal products as their wage, the proposition has not been overwhelmingly persuasive, or even obvious, to others. Even if the proposition were accepted, it would not be easy (as Buchanan and Tollison have persuasively argued) to determine exactly what is the marginal product in a particular situation.

Saskatchewan's Labour Standards Act was amended in 1977 to cover equal pay for <u>similar</u> work, which is defined as "work which is performed in the same establishment under similar working conditions and the performance of which requires similar skill, effort and responsibility."

Legislation pertaining to equal pay for work of equal value was introduced in Quebec in 1976 and into federal legislation under the Human Rights Act of 1978. Advocates of this approach equate the worth of a job to the level of skill, effort, and responsibility required. There are, of course, severe conceptual problems in determining and comparing the worth of different jobs, and these will be examined later in this Discussion Paper. The notion has received some attention in Canada, and the Ontario Ministry of Labour has produced a study on the implications of equal pay for equal work. The following countries were listed as having legislation: Great Britain (1970), Ireland (1974), Italy (1948), West Germany (1949), Luxembourg (1974), Holland (1975), Belgium (1971), and France (1972). Not all countries distinguish between "equal work" and "work of equal value," and not all provide adequate methods of enforcement.

> There seems to be quite widespread recognition that real progress toward equal pay for work of equal value has been slow and somewhat disappointing. Substantial female/male wage differentials continue to exist for a wide variety of reasons, but the failure to define adequately terms in the legislation itself, and to recognize fully the numerous possibilities for evasion, are almost certainly partially responsible [see Ontario Ministry of Labour (1976), p. 47].

Since 1977, employees covered by federal legislation in Canada have been working under the federal Human Rights Act, which legislates equal pay for work of equal value. Com-

plaints must be presented to the Human Rights Commission. Until 1982 no cases had come before the courts, and only four of the cases brought to arbitration involved the issue of work of equal value.[5]

Affirmative action programs are plans put into effect by employers to hire and train groups who are underrepresented in the work force. For instance, if female executives represent a lower percentage of the total number of executives than the percentage of women working in a particular firm (or the percentage of female executives in the total workforce), then that firm might attempt to hire more female executives or train them from within.

Such affirmative action could consist of extra recruiting efforts, special training or grooming programs, or the imposition of quotas, timetables, or goals to correct the representation. Thus affirmative action is a positive attempt in the present to offset the inequities caused by supposed discriminatory behaviour in the past or the structure of past institutions.

Affirmative action legislation was enacted in Saskatchewan in August 1979 as part of the Saskatchewan Human Rights Code. Section 47 of the Code specifically provides for employers to initiate affirmative action. Saskatchewan,

Ontario, and British Columbia have implemented such programs, and all provinces except Newfoundland now permit them.

In Section 1, on the basis of aggregate statistics, it was asserted that working women in Canada receive lower remuneration than men. Another (admittedly crude) measure of the inequality of incomes is the size of the settlements reached after the introduction of equal pay legislation. These settlements also depend upon the enthusiasm of the enforcing agencies. In Newfoundland and the Northwest Territories, complaints must be initiated by individuals; in all other provinces, routine investigations can be conducted at the behest of the Human Rights Commission. All but the Yukon Territories protect the complainant from reprisals and also provide anonymity if requested. Usually, after a complaint is made to the appropriate body, a decision is made and a monetary settlement determined. There is usually compensation for lost wages. Appeals can be made, and finally recourse can be had to the courts. Jain (1981) investigated the interpretation put on the Canadian legislation. Ontario has ruled that: "the same work" need not imply "identical work"; different job titles do not necessarily indicate different work; and slightly different job assignments do not make work unequal. Similarly, if some men do the same work as women, then the whole occupation should receive the same pay. This last case is consistent with a Saskatchewan decision that at the University of Regina

5 out 46 male caretakers constitutes "some" men doing the same work as women; hence that warrants equal pay for men and women. The Canadian equal work legislation permits unequal pay for "factors other than sex," and at the federal level such factors include differences in the quality of work, as assessed by management.

The average settlements in successful cases ranged from an average of $300 in New Brunswick in 1976 to $1,492.50 in British Columbia in 1975. No settlements were awarded in Quebec, although seven cases were finalized in 1976. Fines have also been exacted from employers. Jain (1981) provided several examples of settlements, ranging from $43,000 for 24 women to $120,000 for 200 women. The existence of such settlements indicates that there were some inequities in income in the past.

As noted in Jain and Sloan (1981), settlement in successful cases ranged over compensation for lost wages, pain, and humiliation; reinstatement; offers of new employment, and letters of apology. The firm might also have been instructed to display the human rights code and to stop its unlawful conduct. The most frequent remedy was compensation for lost wages. The Canadian Association of Administrators of Labour Legislation estimated that average settlements ranged from an average of $300 in New Brunswick in 1976 to $1,492.50 in British Columbia before 1976. No

settlements were made in Quebec, although seven cases were completed in 1976. Jain examined settlements up until 1980 but did not give a breakdown by provinces. He estimated the range of settlements for lost wages to be between $40 and $72,518 for selected provinces and the range for damage payments to be between $100 and $27,200.

3 INTERPRETATION OF THE STATISTICS

The questions raised by the first two sections of this Discussion Paper are: How should we interpret the statistics in Section 1; and do the legislative measures discussed in Section 2 provide remedies for any unequal treatment of men and women with respect to earned incomes?

The obvious (and simplistic) route is to ascribe the whole differential in wages to "sexual discrimination," where discrimination is deemed to occur when: "individuals who are similar with respect to all pertinent variables are treated differently depending on their membership in a particular class"; see Hoffman and Quade (1982), p. 36.

A more conservative approach is to correct for the differing distribution of attributes between men and women (such as age, experience, education, concentration in particular industries, absenteeism, absences from the labour force, and so on) and then ascribe only the residual differential to sexual discrimination. Since, in regression analysis, we must always have a residual and omitted variables, this procedure is fraught with ambiguities. If the fitted residuals indicate that an important variable has been omitted from the equation, we do not know whether it is the attribute variable "sex" or whether it is some other

variable highly correlated with sex. Conversely, we cannot be assured that sexual discrimination does not exist simply because men and women working in the same jobs receive the same salaries; it could well be that women are precluded from the higher-paying jobs for some reason and hence have no access to the higher compensation. Occupational segregation will not show up in the corrected salary statistics in a regression analysis; nevertheless, it may be regarded as another form of discrimination. Even the segmentation of women in certain occupations is not a sound basis for a charge of discrimination, since there may be factors other than sex that determine the distribution. In a U.S. case, a judge noted: "Statistics showing a higher percentage of blacks assigned to lower level jobs do not, in and of themselves, establish disparate impact on blacks. Without evidence of equal interest in various jobs, equal availability and equal qualification, the more reasonable inference would be that substantially more blacks than whites were willing to take the service worker jobs [Hoffman and Quade (1982), p. 2]."

The authors mentioned in Section 1 regressed the wages of men and women on these explanatory variables and examined the differential. When all these effects had been accounted for, some did and some did not attribute the remaining differential to sexual discrimination. Holmes remained neutral; Haessel and Kuch (1979) stated that if the differ-

ential between male and female earnings is to be ascribed as discrimination, then so must the differential between single and married men. They found significant salary differences for both of these groups. They suggested that the marital status of men could have a bearing on their commitment to, and productivity in, the market, and hence the differential in their compensation might be "explained" by their marital status rather than indicate discrimination. It is conceivable that such an explanation could also be made in the case of women. Robb (1978) was prepared to accept the discrimination hypothesis, as was Gunderson, who claimed that "the existence of an earnings gap ... is generally consistent with theories of discrimination and with the impact of greater household responsibility on women [Gunderson (1976), p. 127]." The Fraser Institute did not deal with Canadian data but was firmly of the opinion that their evidence, based on U.S. data, did not support the hypothesis that discrimination exists in the market place; see Block and Walker (1982).

It is, of course, very difficult to draw categorical implications from statistical studies, but we must be prepared to accept the statistician's philosophical stance that evidence can support hypotheses about the world. We must also contend with the assertion in the Fraser Institute study that the basic supposition of affirmative action is that "in the absence of discrimination the various minorities - racial, sexual [sic], ethnic - would have

achieved earnings levels indistinguishable from the majority" (p. xvi). We would certainly expect each of these subgroups to have a distribution of earnings, but in the absence of other differences (age, skills, etc.) we would expect their means to differ only by some sampling disturbance. We must accept the working hypothesis that if all variables are taken into account, two individuals identical in all respects except their sex can, in the absence of discrimination, expect to receive the same remuneration.

Finally, we should perhaps restrict our definition of discrimination - the different treatment of individuals with the same attributes - to economic discrimination. Two individuals may differ in their labour market attributes (experience, skills, absentee rates, and so forth), not because they differ in their basic attributes (whatever they might be) but because of their different socialization and upbringing. It would be unreasonable to expect the market to bear the burden of adjustment for actions that took place outside the market.

That was precisely the point made by Breton (1982), who explained that many of the phenomena observed in the labour market were caused outside the labour market. He commented that words such as "discrimination," "motivation," and "oppression" merely signify our ignorance and that perhaps they beg us to question the reason for differing compensa-

tion, since each of these notions demands a further discussion of its causes. As explanatory variables they have little operational content, and what little they do have may not be particularly tractable. With respect to the labour market behaviour of women, to ascribe differential compensation to the different attitudes of women is simply to raise the question of what produced those attitudes before they entered the labour market; thus preconditioning in the schools and the home must be studied. A start on this approach was made by the Science Council of Canada at their conference and in their publication Who Turns the Wheel? (1981); they suggested some changes in the methods of teaching school children. Of course, individuals (of either sex) are different and are treated differently both inside and outside the labour market. If it is not possible to conclude that the observed differential treatment of men and women is the result of systematic bias (or unfair or discriminatory treatment), then legislative remedies in the form of equal- pay-for-equal-work laws are neither necessary nor desirable. The mere demonstration that market rewards are different for men and women is not sufficient to conclude that they are being treated differently because, and only because, of their sex.

It may be that adult men and women are compensated differently in the labour market because of their different upbringing and childhood conditioning. If that is the case, the need for social and educational policies is indicated,

though only if the wage differentials are considered to be unwarranted and unreasonable. On strict economic grounds, if male and female motivation and commitment to the labour force differ, there is no reason why they should be treated identically.

Finally, the labour market activity of men and women may differ, not because of their socialization and conditioning but because of inherent and genetic differences that have a significant impact upon such activity. Simply put, the productivity of men and women may differ precisely because they are men and women. If such is the case, no remedies are required.

4 ARGUMENTS AGAINST EQUAL PAY LEGISLATION

As stated earlier, it used to be that the concept of need was considered in the determination of wages. Since most women did not have family responsibilities, it was considered unnecessary to pay them the same wages that men were paid. This argument is no longer advanced (indeed, it has lost much of its force, since many women today do support families). The need for legislation to enforce payment to workers that is consistent with their contributions is not recognized by some authors. If one accepts their arguments, then one will not be convinced of the necessity for equal-pay-for-work-of-equal-value legislation or for affirmative action programs. If there is no logical reason for paying the same wages to all workers within the same firm who perform identical tasks, then it is certainly not convincing that workers who perform similar tasks in different firms or occupations should receive the same wages. Finally, if, as has been suggested, affirmative action is merely a remedy for past injustices, then such action is certainly not necessary.

The first argument begs the question of the merits of equal-pay-for-equal-work legislation by asserting that the statistical evidence available does not support the hypothesis that equal work is not compensated with equal pay. The second is an economic argument; it states that in cases

where workers with the same productivity have differing opportunity costs, their opportunity costs should be the appropriate wages. A third and related argument, which will be discussed in the next section, is that the differential between male and female wages can be traced to occupational segregation, which cannot of course be eliminated by equal-pay-for-equal-work laws. Solutions to this problem (if, indeed, it is a problem) must go beyond economic legislation and incorporate social and institutional change.

The Statistical Approach

The statistical approach shows that workers who are purported to be the same and thus would provide the same work are, in fact, different. Block showed that although, on the basis of the gross statistics, a sample of women earned only 37.5 per cent as much as their male counterparts in 1971 in Canada, the ratio increased to 99.2 per cent when the incomes of single women were compared with those of single men [Block and Walker (1982), Chapter 5]. Block used marital status here as a proxy for labour force attachment and claimed more similarity between the incomes of single women and single men than between those of women and men. This, of course, is true: there are fewer single women than married women engaged in part-time work; they tend not to have intermittent work patterns; and they tend to have work and career patterns that are very similar to those of men.

Block, however, did not account for age and experience in his analysis. If single women are, on average, older than single men and if productivity is related to age and experience, then Block's evidence of similar earnings does, in fact, support the hypothesis that earnings for women are lower than those for men when age and experience are taken into account. Furthermore, we are left with the unexplained result that married men earn more than single men, which is opposite to the result for women. In referring to Block's source, we find the following remark: "It is important to recognize, however, that if the analysis is restricted to never-married subgroups the results may not be representative of the general population because of the selection process involved in the marriage market [Haessel and Kuch (1979), p. 112]." Also, on checking the table therein, we find that single women are indeed, on average, older than single men. The figures are grouped by ethnic background, and in no group is the average age of the men greater than that of the women. The difference ranges from three months to four years.

Williams, in the same Fraser Institute publication, used the same methodological approach to the incomes received by blacks and whites in the United States; see Block and Walker (1982). The central theme of his paper is that statistical aggregates can be misleading and obfuscatory and that observed differentials between the average salaries of blacks and whites may be partially explained by differences in their

age and skill distributions. The analytic point is well taken, however. To quote, "some years ago a well known public official in California quit his job and moved to Alabama, thereby - in the words of a local editorial - raising the average IQ in both states. That this should indeed be possible is apparent. By the same token it is possible, by a mere redistribution of the population of the United States, to raise the average IQ in all fifty states [Falk and Bar Hillel (1980), p. 106]." The conclusion to be drawn from this is that questions such as "do women earn less than men?" may not be sufficiently well defined to be answered appropriately.

Williams asserted that by breaking down aggregates into white, nonwhite, male, and female the apparent differentials in remuneration could be ascribed to such objective factors as education, profession, or geographic location. Implicitly, he was prepared to accept unexplained income differentials as evidence of discrimination.

In his breakdown of statistics on the incomes of white and black men, he found discrepancies between the earnings of both, but this was not so in the case of the female breakdown. For Williams, this anomaly with respect to female earnings presented an insurmountable obstacle to accepting the hypothesis that discrimination against blacks exists. He placed as much emphasis on the female results as on the male

results, even though in 1950 women (both black and white) comprised only 28 per cent of the labour force, with black women accounting for only 3.5 per cent. He therefore drew conclusions about discrimination against a group that were based on a sample of 7 out of every 200.

Williams's results were very similar to those of Shapiro and Stelcner (1970), whose work on male-female earnings differentials was cited earlier. They had set out to examine the impact of linguistic background on incomes in Quebec. They found that although linguistic background was a significant determinant of income for men, it was not so for women; and the differential for their incomes was much less than for those of their male counterparts. The authors simply concluded that women earned less than men and that Anglophone men had an advantage over Francophones.

Thus, when confronted with similar evidence, Williams can reach conclusions that are opposite to those reached by Shapiro and Stelcner; this would appear to be because they are testing two noncontradictory hypotheses. The hypothesis that faced Williams is that women are less productive than men, and this hypothesis was supported by evidence that they receive lower incomes. On the other hand, Shapiro and Stelcner felt that such evidence was support for the hypothesis that linguistic origins and language skills are important in determining male earnings.

It is impossible to refute Block's arguments, although I do not find them convincing. They do, however, underscore the importance of careful statistical work in establishing that groups that receive differential wages are indeed similar in all relevant respects.

Marginalist and Institutionalist Approaches to Wage Determination

The second approach is that economic efficiency requires that workers be paid their opportunity costs, not the value of their marginal products. The policy conclusion is that enforcement of equal wages may result in unemployment for the group with the lower wage and in reduced output, or even a crisis of existence, for the firms.

To deal with these arguments it is useful to take an excursion back to the debate (or "war," as Machlup called it) that raged in the 1940s and 1950s between the marginalists and the institutionalists concerning appropriate explanations of the behaviour of firms. Indeed, "it was the marginal productivity principle in the explanation of the demand for labour on the part of the individual firm that was the prime target of the attack of 1946"; see Machlup (1967). If we read some of the current work concerning the determination of wages with the history of the controversy in mind, we may find the territory extraordinarily familiar. Those who deny the marginal productivity explanation for wages are aligning

themselves with the institutionalist camp of Lester (1946) and Hall and Hitch (1939). This observation in itself is not very interesting, but it does help to illuminate some of the debate.

The marginalist theory states that firms in highly competitive environments attempt to maximize profits and, by implication, attempt to set marginal costs equal to marginal revenues. A further direct implication is that firms pay inputs the values of their marginal products. The marginalist approach has been expanded to include a more flexible goal for the firm than simply profit maximization, and most marginalists concede that something more than pure theory is required to produce a useful theory of the firm in an imperfectly competitive environment.

An alternative approach to the marginalist theory is the behavioural and organizational theory of the firm. This approach suggests that selling prices may be set by some rule of thumb, such as average cost plus a percentage markup; that wages may be set by unions at the bargaining table or by market power; and that the goals of the firm may be many and inconsistent.

Much of the theoretical debate over equal pay for equal work involves the criteria for defining equal work and the problem of isolating an individual's marginal contribution to

the firm. These are precisely the problems that plagued the institutionalists in the 1940s and that motivated their alternative explanations of firm behaviour.

We see this confusion in Block's interpretation of equal-pay-for-equal-work legislation.

Courts do not attempt to gauge productivity in equal-pay-for-equal-work cases; they define equal work and similar work through job descriptions or a listing of job characteristics - see Treiman and Hartmann (1982), CAAL (1977), and Jain (1981) - and set wages for equal jobs at the higher prevailing rate in those jobs. Block misunderstood this institutional approach and labelled it "arbitrary" in his objection to the current laws; see Block and Walker (1982), p. 106:

> Productivity must be estimated (or guessed at) by entrepreneurs, who do so every day, and lose money for each mistake they make. They are far more able to make such determinations accurately than are judges and juries who have little experience in this endeavour, and risk no personal funds if they err. Since they assume that productivity measurements are easily ascertainable EPFEW [equal pay for equal work] laws are at variance with the facts [my emphasis]. They are thus incapable of fair and non-arbitrary implementation.

Block's suggestion that court decisions are based on marginalist theory is incorrect. Given the premises of the institutionalist approach, these decisions are entirely

logical; they do not, of course, conform to the economists' notion of marginal product, but then they were not designed to. We note that implicit in this approach is the assumption that there is some relationship between job description and productivity.

The second rebuttal to the opportunity cost argument requires a careful analysis of the distributional impact of such a wage determination. We can show that if workers are paid their opportunity costs rather than their marginal products, then markets must be less than perfect, and this must involve firms receiving rents.

In review, neoclassical wage theory employers do not pay workers more than what they believe to be the workers' marginal contribution to output. Similarly, workers will not supply their labour services for less than their reservation prices, however they are determined. A labour market will exist, and exchange will take place only when the first quantity is larger than the second; furthermore, in a perfectly competitive, frictionless world, both these quantities will be equal to each other at the margin. Suppose that a group of workers is attached to a firm and that all of those workers are equally productive. If the firm pays the same wages to all workers but yet some workers have lower reservation prices, then economic rents (or producer surpluses) accrue to those workers. Alternatively,

if the workers receive their reservation prices as wages, then those rents remain with the firm. If in the long run those workers remain with the firm, then even though in perfect competition the firm receives no excess profits, it does receive economic rent. This surplus may be transferred to the owner of the fixed input.

The assumption that all the workers are equally productive applies to two cases. The first is that all workers are equally productive and that all workers make an equal contribution to output. The second is that the workers are united as a "team" that cannot be broken up; removal of any worker would destroy the team and reduce output to zero. In the latter case, the entrepreneur simply supposes, and acts as if, all workers have the same marginal product, and the average equals the marginal product; in other words, the workers are perfectly complementary goods in production.

The Buchanan and Tollison Model

Buchanan and Tollison (1981) presented an interesting model, using this notion of a team, to try and show that economic efficiency simply requires that workers be paid their opportunity costs and not their marginal products. In their model, they assume that two types of workers (x and y) are hired at wages equal to their differing opportunity costs. Output is produced by a team composed of is fixed

number of the two types of workers. The producer does not increase the quantity of x or y to restore equality between the marginal costs of x and y (and, incidentally, increase output) because the "team" concept imposes limits on the degree of substitutability of x and y in the productive process. The authors concluded that the imposition of an equal wage for x and y (at the higher of W_x and W_y) erodes the rents accruing to the firm, drives some firms out of business, reduces output, and reduces general welfare. Thus they claimed that the payment of differential wages is logically defensible.

There are three questions that need to be asked in this analysis: first, what is the source of the differing opportunity costs; second, what is the level of profits and output in the initial equilibrium; and, third, what is the total wage bill at the initial equilibrium?

It was asserted by Buchanan and Tollison that in their model the firm is perfectly competitive in the output market; thus in long-run equilibrium it is making zero profits and its payments to factors of production exhaust its total product. Equal pay laws will indeed drive some firms out of business. The initial wage bill was the appropriate one but was distributed inappropriately between the workers x and y. The correct wage is the weighted sum of the wages received by x and y; thus if W is the total wage bill and

$$W = W_x x + W_y y,$$

the nondiscriminatory wage is $\frac{W}{x+y}$.

Since $\frac{W}{x+y} < W_y$ (if the y workers have the higher opportunity cost), this new wage would indeed result in the workers moving to other jobs, thus reducing output in that particular industry.

Whether or not this represents a welfare loss or gain is unclear. A simple reduction of output in one particular industry cannot be viewed as an unequivocal loss in welfare. If only some firms were paying differential wages, then those firms were earning rents, and the legislation removes those rents. The assertion that general welfare is reduced must take into account a value judgment about the welfare associated with the initial position.

This notion was discussed by Harberger (1971) in the context of underdevelopment. The principle translates well. He argued against the use of wages as a measure of social opportunity cost in the evaluation of the welfare impacts of investment projects. Instead of counting all wages as a cost of the project, only the reservation prices should be counted. The difference between wages and reservation prices accrues to the workers as a net welfare increase. "This is quite as it should be. If only we knew the voluntary supply prices of the workers to be hired by a project, we would

surely want to use them as our measures of the social opportunity cost of each man's labour" (p. 566).

If we turn his argument on its head and apply it to the Buchanan-Tollison argument, we see that paying workers their opportunity costs instead of their marginal products results in a reduction of their surplus and their welfare. Paying all workers the same wage results in an increase in their welfare and a reduction in output, with a concomitant decrease in welfare elsewhere. It is beyond the scope of positive economics to choose between these positions.

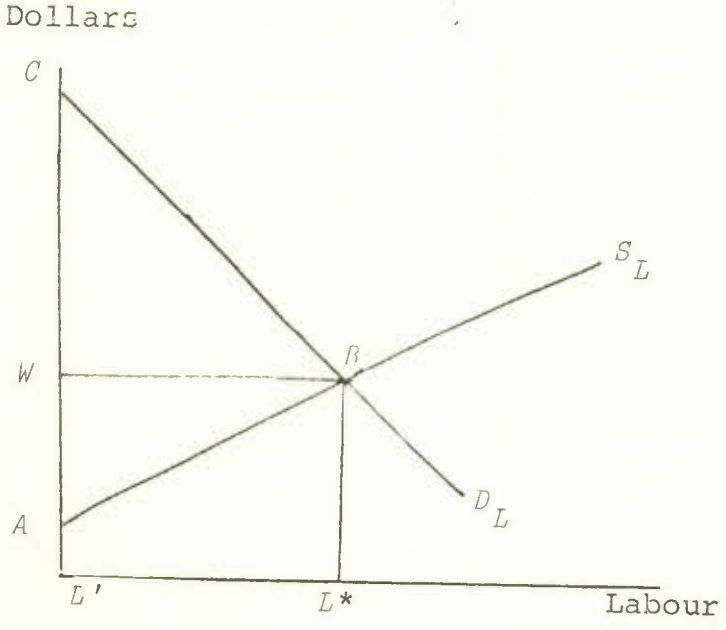
Buchanan and Tollison were aware of this interpretation, since they stated in footnote 6 (p. 35):

> In this setting therefore, the firm is a monopsonist of the traditional variety. Our analysis suggests only that the discriminatory input pricing that the monopsony firm would naturally follow is required for allocative efficiency. The monopsonist need not of course retain the 'rents' that might otherwise be gained by input owners. Competition in the product market may allow the monopsonist to survive only if he is able to discriminate in the purchase of inputs.

This is surely not an example of neoclassical efficiency but a good example of overproduction of the good in question, unless we are prepared to make value assertions about the worth of producing that good.

If Buchanan and Tollison object to wages equal to the value of the marginal product, then they object to the whole marginalist approach to wage determination. They are advocating a simple model of price discrimination where the employer attempts to absorb all the resource surplus. That this is indeed a model where the employer treats workers differently on the basis of irrelevant criteria (their opportunity costs rather than their marginal products) is clear, since a condition that could be called "anonymity" is required in perfect competition. The last worker hired has a well-defined marginal product, but a permutation of the order in which the workers are hired would result in a different last worker having the same marginal product. It is on this basis that all workers are paid the same wage. Consider the following diagram:

Figure 1



There is no theoretical reason why L' should simultaneously have the highest marginal product and the lowest reservation price or why L^* should have a marginal product equal to his or her reservation price, except that he is the last worker.[6] Again, looking at the figure, if we have two inputs - one variable (labour) and the other fixed - then the area *WBC* is available to meet the costs of the fixed input. If the firm is able to extract all producer surplus from labourers, then *ABW* is also available. If in the long run the firm has some surplus that is not bid away, then it is receiving economic rent.

Payment of different wages to apparently homogeneous workers suggests that there are some noncompetitive features in the system (since the employer is able to price-discriminate) or that their homogeneity is not real - or at least not apparent to the employer.

If the workers are equally productive but have different opportunity costs, then the necessary condition for differential payments is that the market be noncompetitive. This is Machlup's distinction between the types of problems that can be appropriately handled by the marginalist model and those which must be handled by the behavioural approach. "Many of the proponents and protagonists of a more realistic theory of the firm are quite aware of the fact that the managerial extension and enrichment of the concept of the firm was not

needed except where firms in the industry were large and few, and not under the pressure of competition. There are very many quotable statements to this effect [Machlup (1967), p. 11]." The Buchanan and Tollison approach does not apply in perfectly competitive industries. Sometimes in noncompetitive industries the judgment may be made that price discrimination is required so that the industry can continue to exist, but these types of industries are not numerous. I can see no reason why such cases would be significant for equal-pay-for-equal-work legislation, and a case would have to be made for such discriminatory wage schemes.

Finally, we must consider the question of differing opportunity costs: it is very hard to conceive of individuals who are alike in all respects and in their worth to a firm not having equal opportunity costs. One such case cited by Buchanan and Tollison is where workers have strict geographic preferences about where they will work, which is, of course, the textbook example used to analyse economic rent. This rent usually remains with the worker, because under perfect competition the employer cannot discriminate amongst employees. Another case is where opportunities may be restricted in other areas because of overcrowding in certain occupations or through the blocking of some occupations through discrimination. Again, the employer could exploit these conditions only if he were in a monopsonistic labour market.

The Robb Model

Since Buchanan and Tollison were discussing complementary workers, we assume that the equal pay laws that they referred to were the equal-pay-for-work-of-equal-value laws. Robb (1982) addressed herself directly to the impact of the 1978 Canadian Human Rights Act that legislates equal pay for work of equal value. She felt that this legislation might be actively pernicious, because it could destroy the jobs of the very people whom it was designed to protect and result in lower output and employment. She was concerned both with how the Human Rights Commission determines that jobs are "equal" and with the employment implications of its decisions. Her arguments were directed towards the impact of the Canadian Human Rights Act that legislates equal pay for work of equal value. Equal work must entail equal value or productivity, but the converse is not true; equal value may involve different work. Robb was concerned that, because of supply conditions, jobs that are described as being of "equal value" by virtue of their job descriptions may indeed have different marginal products. This she felt would render the notion of equal value nonoperational and she also feared that to the extent that the Commission errs in its descriptions of jobs it might err in its judgments of discrimination. As she pointed out, this legislation is directed at occupational segregation, which may result in jobs that are equally

productive receiving different wages because their job descriptions differ.

Robb raised a problem that did not appear in the Buchanan-Tollison case because they were concerned with one firm. Equal pay for work of equal value is not restricted to comparing workers in one firm. As soon as two firms (or industries) are examined, it is possible for equally productive workers to receive different wages simply because of conditions on the other side of the market. Over time and in the absence of any rigidities, these differences would disappear as workers moved from one market to another.

Robb was concerned with the supposed equivalence of marginal value products and job evaluations. Consider her paragraph on supply-side problems where there is occupational crowding in the typist category. The wage for mail clerks is higher than that for typists because of the overcrowding for typists. Also the marginal value product of mail clerks is higher than that for typists precisely because of these supply conditions and in spite of the equal value of the jobs on the basis of their descriptions. In this case Robb would predict that the Commission would make a mistake. This is again the marginalist versus the behavioural approach to the theory of wage determination, and I shall quote the work cited by Robb:

> There are many who argue ... that existing wage structures are influenced more by bargaining power, monopoly control, custom and accident than by competitive market forces. There has been a substantial amount of empirical research on this question, but the answers are inconclusive. An OECD study of Wages and Labour Mobility in ten countries (1965) states that the data are consistent with either hypothesis - that movements of labour are 'preponderantly wage-insensitive' or that the wage mechanism is so sensitive and powerful that only slight and temporary variations are required to effect substantial reallocation of labour.[7]

The intellectual ghosts of 1946 still haunt us!

Finally, Robb's comment that "the equal pay for work of equal value legislation cannot be expected to make substantial inroads on male/female earnings differentials" is certainly true. As noted elsewhere in that paper (p. 4), the number of Canadians affected by the Human Rights Act is less than 10 per cent of the labour force. Its value may be more symbolic than practical though, and it may signal to the provinces the importance of parallel legislation. The argument presented by proponents of equal-pay-for-equal-work legislation is that the discussion concerns equally productive workers or (in the Buchanan and Tollison case) workers whose joint productivity in a team cannot be disentangled. If we accept the team notion, an employer would certainly not consider breaking up a team by firing certain individuals, although he might reduce the number of teams.

Both Buchanan-Tollison and Robb, in their welfare discussions, ignored the welfare implications of the initial positions in their models. Buchanan and Tollison did not discuss thoroughly why supposedly identical workers have different reservation prices, although Robb did discuss the source of overcrowding in some occupations. A plausible explanation for both of these conditions might be the existence of rigidities or noncompetitive features elsewhere in the economy. Women may crowd into the typist occupation because they are prevented from taking up other equally productive occupations, and women's opportunity costs may be lower if they are prevented from moving into the next best available opportunity by institutional rigidities.

Robb reached the same (correct) conclusion as Buchanan-Tollison - namely, that imposition of the law could well result in unemployment. In the latter case, whole teams might become unemployed, while in Robb's case it would be only those workers who originally received the lower wages. It is very difficult, with any social action, to make changes that do not make someone worse off, and in this case the welfare results in the before-and-after situations are ambiguous. Nevertheless, it is clear that the decision to set wages in equal pay cases at the higher of the two wages may be exacerbating the effects noted by Robb and Buchanan-Tollison. Reducing the wage of the higher-paid workers would

certainly not be an acceptable solution from a pragmatic or political standpoint.

The Analogy between Equal Pay Laws and Minimum Wage Laws

Block's argument also focused on the impact of the law. He claimed that legislation would result in women not being hired for jobs that they might otherwise get (at lower wages). But the law does help women who are currently employed (often more numerous than those who are seeking work), and the remedies under the law (always including recovery of past wages) reflect this emphasis on providing justice for those already employed. Furthermore, the problem mentioned by Block would seem to have been dealt with by the section of the Canadian Human Rights Act that states:

> It is a discriminatory practice, directly or indirectly, a) to refuse to employ or continue to employ any individual ... on a prohibited ground of discrimination [CAALL (1977), p. 31].

Block and Walker's approach was similar to that of Buchanan and Tollison, who essentially derived "is" from "ought." For Buchanan and Tollison, the observation of differential wage receipts was interpreted as the existence of different opportunity costs. Block and Walker interpreted differential wages as indicating different marginal products. By analogy to the argument that minimum wage laws induce

unemployment by making it unprofitable for employers to hire workers with low productivity, they claimed that more women become unemployed when equal-pay-for-equal-work laws are legislated (p. 104). The analogy between equal-pay-for-equal-work legislation and minimum wage laws is a false one, since the equal pay laws are built on the assertion that on the basis of job descriptions the jobs for men and women are equal. Of course, to the extent that the wage imposed in equal-pay-for-equal-work cases is "too high" there will be unemployment and a reduction in output.

5 OCCUPATIONAL SEGREGATION

Occupational segregation is a phenomenon that has been observed and commented on in the Canadian earnings statistics. It is difficult to analyse because it is possible simultaneously to explain its existence by theories of discrimination and to invoke its existence to explain wage differentials between men and women. If occupational segregation is seen as a problem, it certainly cannot be confronted by equal-pay-for-equal-work legislation. The relevance of equal-pay-for-work-of-equal-value legislation is also quite murky, although, as we shall see later in this section, it may be the case that some occupations are low-paying precisely because they are performed by one group whose contribution is undervalued by society. Affirmative action programs are the clear prescription if it is judged that the occupational distribution is "unbalanced," although it is rather difficult to see why any particular distribution would be "unreasonable" or "unfair."

This section will discuss the reasons suggested for the current occupational distribution among men and women.

Much of the differential between men's and women's wages can be explained by the differently rewarded occupations of men and women. The human capital approach suggests that if

women expect to spend 30 years in the labour force (compared with 40 for men), then they would have less time over which to recoup any investment in human capital, and it is only rational that they would acquire less education and fewer market-related skills than men; see Becker (1964). This argument can be further elaborated by discussing the depreciation rate of acquired skills and also the timing of the dropout from the labour force, but its basic thrust remains the same. Women acquire fewer skills than men and cluster in low-skilled occupations; as a result, they are paid lower wages than men because their commitment to the labour force is lower. This approach has been elaborated by Polachek (1981), who investigated occupational choice for individuals whose expected lifetime participation rates differ. Individuals who expect to be out of the labour force the most will choose occupations whose skills have the lowest rates of atrophy. Polachek estimated the rates of atrophy for the eight occupational groups that he defined and found that the rates are highest for the professional, managerial, and craft groups - a result that he considered plausible. He used a sample of white women aged 30 to 44 to test the hypothesis that intermittent labour force participation influences occupational choice away from those occupations with high atrophy rates. He concluded, on the basis of his results, that if women had full commitment to the labour force the number of women professionals would increase by 35 per cent; the number of women managers would double; and the number in

sales, service, and (paid) household work would go down by 25 per cent (in the United States).

The second reason suggested as to why women's productivity and career choices are so different from those of men is that they have been socialized and trained differently. The Science Council of Canada believes that because girls do not take scientific subjects in secondary school, young women are prevented from moving into scientific fields in university or on into scientific careers. Thus the explanation for the clustering of women in certain occupations is that they declined to study scientific subjects in school. The Science Council had no explanation for this disinclination, which prompted a conference in 1980, the proceedings of which were subsequently published.[8] The proceedings include contributions on the evidence (in the form of statistics) and summaries of work on supposed sex differentials in intellectual abilities and psychological norms, and in socialization. Chapter 2, by Joan Scott, produced summary statistics that show very low enrolments for girls in high school physics and mathematics, but higher enrolments for girls than boys in biology. In total, though, fewer students study biology than mathematics and physics. In general, the girls who do take science score as highly as the boys, and nowhere in the discussion could I find the implication that girls avoid science because they are unable to succeed in their classes.

The problem of a lack of scientific education on the part of women is diffuse and cannot be addressed by equal pay legislation. Women must be capable of understanding the technology that pervades our daily lives, and they must improve their scientific and technical skills to assure themselves a place in a rapidly changing labour market. This problem was discussed in the Science Council's publication Who Turns the Wheel? The Council was so moved by the current situation that they issued a Statement of Concern: "The absence of girls from today's science classes will lead to a corresponding absence of women from professional science tomorrow. Few women presently hold positions of responsibility in science in universities, government, or industry.... If women are to help mould our society they must be well represented in the professional scientific community."

The policy suggestions that have arisen from the conference are basically of the affirmative action type. The suggestion of providing separate science classes for girls (especially during adolescence) is one that could be implemented very quickly and easily, especially in large schools with multiple sections of classes. It has been shown that girls in single-sex schools take science in larger numbers than in co-educational institutions. Modifying cultural stereotypes in the schools will be difficult; providing role models and female teachers will be even more so.

The suggestion of affirmative-action-type policies in the schools is interesting, however, since many of the prejudices currently held about affirmative action can be side-stepped. Since high school students do not produce an identifiable output, arguments that such programs will lower productivity are untenable. The opportunity cost for a girl taking science is not a boy taking science (except in the very short run and under the most inflexible of systems), and certainly no one believes that more girls in science will lower standards! The available evidence is that girls in science do as well, on the average, as boys. In the last analysis we should be aware of the human loss to a group that does not understand some part of our culture. I can do no better than quote C. P. Snow on the same theme:

> ... those without any scientific understanding miss a whole body of experience: they are rather like the tone deaf, from whom all musical experience is cut off and who have to get on without it. The intellectual invasions of science are, however, penetrating deeper.... If so those who do not understand the method will not understand the depths of their own cultures.[9]

Jane Gaskell challenged the data presented in Who Turns the Wheel?[10] on the basis of a letter from the Saskatchewan School Trustees Association, which showed that the enrolment differences in Saskatchewan were quite small, and also a paper by Scott, which suggests that data are too fragmented to enable the drawing of any reliable conclusions.[11] There

seems little doubt, however, that women are underrepresented in the scientific disciplines at the university level; see Breton (1982), and ECC (1983). Of course, the channeling of girls into nonscientific disciplines is only one contributing factor causing the crowding of women into certain occupations. Nursing provides a good counter example, however, since it is an occupation with a preponderance of women. It certainly requires some scientific training; yet high school girls who wish to be nurses succeed in obtaining it.

These two explanations suggest that the current occupational structure is a result of women's choices, informed or otherwise. The internal and dual labour market theories suggest that the occupational distribution is a result of discriminatory behaviour on the part of employers at the time the hiring decision is made.

Under the internal labour market theory, different criteria are used for hiring individuals into a firm and for subsequently promoting or transferring them within the firm. Individuals who are not initially hired have no chance to compete for other jobs and to progress through the firm. Discrimination may occur at the entry level through credentialism, job stereotyping, and union regulations.

Dual labour market theory suggests that there are two labour market sectors - one characterized by high wages, job tenure and stability, and career development; the other, by intermittent employment, low skill development, and little on-the-job training. There is a high concentration of men in the first sector and women in the second. Jain (1981) found the empirical evidence for this theory uncompelling but suggested that it might provide a useful framework for policy formulation.

Occupational distribution is not entirely an economic phenomenon; thus it cannot be altered by economic legislation. It is not even clear whether it would be desirable to alter it, except in the case of the education given to boys and girls. It is apparently the intent at the moment to provide boys and girls with the same education. This is not being achieved. If it were achieved, the occupational distribution might change; but given women's nonmarket responsibilities, we can always expect considerable skewness in occupations.

6 STATISTICAL DISCRIMINATION BASED ON PRODUCTIVITY DIFFERENCES

Section 4 dealt with arguments claiming that equal work need not be compensated by equal pay. The discussion, however, did not answer the question of whether, in the presence of labour market productivity differences, unequal compensation is in fact nondiscriminatory.

Women's productivity in the market may well be lower than that of men even if, on the basis of job descriptions, they are both the same. Before suggesting two reasons for this, the temporal nature of the labour market should be discussed. Although most economic analysis of productivity is static and atemporal, labour market institutions and hiring decisions are made in a temporal environment. Two individuals may be equally productive at a point in time, but one may have a lower expected productivity because of a higher absentee rate or an earlier quitting time. Thus equal-pay-for-equal-work laws, based on static job descriptions, may result in discrimination in favour of women or in employers not hiring women.

The first reason suggested for the lower labour market productivity of women is their unique capacity to bear children. This attribute brings with it the necessity to

take some time away from the work force to bear and nurture their offspring, and it also results in the goals and expectations of young women differing dramatically from those of young men. This result was discussed at some length in Section 5. The result of the differing productivity that confronts us Jain called "statistical discrimination"; see Jain and Sloane (1981). An employer perceives an individual woman as belonging to a class that takes time off, or quits permanently, in order to bear children. The employer bears some costs for this behaviour and hence is reluctant to hire members of that class, regardless of the intentions or aspirations of the individual member of the class. Current regulations that forbid questions during pre-employment interviews about marital status, age, and expectations concerning children and family formation exacerbate this problem. It is not possible for any particular woman to demonstrate that the probability that she will leave the work force is any lower than the prior probabilities already established in the employer's mind for the group to which she belongs.

Equal-pay-for-equal-work legislation fails to address the problem of statistical discrimination because that concept has built into it a multiperiod horizon. We must distinguish between productivity and expected productivity. The expected productivity of a woman who leaves a firm after a short time is lower than that of a man who is committed to

a lifetime career; yet in that case the equal-pay-for-equal-work legislation would provide equal compensation to two individuals who are not equally productive. Of course, in the absence of the legislation those women who do not conform to the norm would receive lower compensation in spite of providing services equivalent to those provided by men. Again, it appears that this legislation will result in a redistribution of income to female workers and perhaps even a reduction in their level of employment if firms can avoid hiring them.

The second result of differing productivity is that women may be discriminated against under the current pension plan scheme. There are two aspects to the current differential treatment of male and female pensioners. To the extent that women earn less than men they receive correspondingly lower pensions; equal-pay-for-equal-work legislation will certainly remove some of those inequities. Such legislation, however, cannot attack the problem of the "dropout" provision; for that, pension reform is necessary. The linkage between equal treatment before the law in employment and equal treatment by social security in EEC countries was the theme of André Laurent's recent paper in the International Labour Review.[12] He pointed out that equal treatment for men and women is not the rule in statutory social security schemes. This is true in Canada also. This subject is peripheral to my paper, since many pension inequities fall on

women who have little or no attachment to the labour force. In any analysis of the position of women in our society, however, their treatment under the pension plan cannot be ignored.

Paid maternity leave can be seen as just another facet of equal pay, since it provides income support for a woman at a time when she is unable to work. In this respect it is similar to unemployment insurance and workmen's compensation. An employer might reasonably see such benefits as increasing his costs; but if it were funded at the national level, then no employer would need to feel that the employment of women compromised his competitive position. This would result in the state taking over what is now essentially a private cost. Even if the burden of maternity leave payments were to be transferred from the individual firm to the state, there would still be some costs that must be borne by the employer when an employee leaves the firm for a shorter or longer period of time. Someone must substitute for the absent employee, and invariably there are adjustment costs when the employee returns to work.

The position can be taken that the denial of adequate parental leave (for either mothers or fathers) is a form of wage discrimination and hence the concept of equal pay for equal work requires these fringe benefits. This is the view of the Canadian Labour Congress.[13] Of course, if full

parental leave were to be considered, a distinction would have to be made between income maintenance during the time when a mother is physically unable to work and income maintenance for a parent during the time when a parent wishes to rear an infant. Maternity leave, like pension benefits, superficially appears to be unrelated to the equal-pay-for-equal-work controversy; nevertheless, it is part of the problem if pay is construed as including all emoluments.

The structure of the unemployment scheme, both in its funding and its benefits, will affect the way that women fare under the scheme. Statistical discrimination against women will occur if individual firms must finance maternity benefits. If parental or adoption leave is not distinguished from the disabilities associated with childbearing, then pregnant women will be discriminated against, since the time of their physical incapacity will be treated no differently from the time taken off by fathers or adoptive parents. In this case it is the equal treatment of those in different positions that produces the inequity.

These arguments suggest that laws pertaining to equal pay for equal work and to equal pay for work of equal value will not change the pattern that we see in the statistics on lifetime incomes for men and women. Women, because of their family responsibilities, will continue to receive lower lifetime incomes. To the extent that a worker's contribution

to a firm should be assessed over a longer time horizon than one time period, however, the equal-pay-for-equal-work laws may result in overcompensation for women or even in their underemployment if employers are aware that they may not provide as high a total contribution to the firm as men.

The different work patterns of women result in a list of problems that are peripheral to this paper but that are certainly important, including pension, maternity leave, and unemployment insurance.

7 EQUAL PAY FOR WORK OF EQUAL VALUE

This section will discuss equal pay for work of equal value, or the comparable worth issue.

There has been some feeling that equal pay legislation and affirmative action programs may indeed do more harm than good. The author's fears about the federal human rights legislation in Robb (1981) have already been mentioned, as has the Fraser Institute's belief, in Block and Walker (1982), that much of the recent "equal rights" legislation may have a perverse impact on the very groups it was designed to help. They argued that affirmative action has been misunderstood and its policies misapplied, resulting in grievous harm to the very group that were to have benefited from those policies and also in unwarranted government interference in the economy. Finally, they attacked equal pay for equal work by analogy to the argument that minimum wage laws induce unemployment by making it unprofitable for employers to hire workers with low productivity. They claimed that more women become unemployed when equal-pay-for-equal-work laws are legislated because the productivity of women is lower than that of men. The literal response to this, of course, is that if two individuals are performing equal work, then by definition their productivity is the same.

The United States has had considerably more experience with comparable worth than Canada. The Equal Pay Act was passed in 1963; and the Civil Rights Act, Title VII, in 1964. Title VII broadened the Equal Pay Act by making it unlawful for employers to discriminate in any of their employment practices. In spite of some debate concerning whether or not Title VII could be enforced only under the restrictive conditions of equal pay for equal work, the issue of comparable worth still appears to be alive.[14] Davis and Spengelman concluded that in the United States the legal status of comparable worth is ambiguous.

The same conclusion was reached for Canada; see Jain (1981). As stated earlier, however, the courts have been liberal in ruling that "the same work" does not mean "identical work." Both Saskatchewan and Alberta have ruled that jobs are the same if some men perform the same jobs as women; Ontario has also ruled that different job titles do not necessarily imply different work.

On the question of comparable work, both the federal and Quebec Human Rights Acts provide for equal pay for work of equal value ("equivalent" work in Quebec). This has been interpreted in Quebec as applying to dissimilar jobs. Jain reported (p. 15) that up until March 1981 the concept of equal value had not been tested in the courts. The Human Rights Commission has settled cases involving hospital

nursing directors and male and female librarians in the public service.

Of course, the crux of the problem with the concept (and its implementation) of equal pay for work of equal value is the computation of the value of that work. Economic theory certainly gives us little direction here, and the only operational approach is that of job description and job evaluation. In Treiman and Hartmann (1981), pp. 71ff., and Sorensen (1982), the authors firmly believed that job evaluation is possible, and the courts themselves take cognizance of existing evaluations. In the Gunther decision in the United States "the court paid particular attention to the fact that the county had conducted a market survey of the worth of the jobs in question and that while evaluating the matrons' jobs at 95 per cent of the guards' jobs, proceeded to pay the matrons only 70 per cent of their evaluated rate." In Canada, employers' own job evaluation systems have been used as evidence in equal-value cases. Given that existing job evaluation systems will be used, it is worthwhile to examine the potential drawbacks with such systems.

The usual method of evaluation is to assign scores to various aspects of a job. The weightings given to various components of a job are necessarily subjective and are based on the evaluator's beliefs about the worth of various

factors. After all these factors are totalled, jobs with equal scores - although probably very dissimilar - should theoretically receive the same pay. It is possible that job descriptions and factor weightings may simply perpetuate the ingrained biases and assumptions about women's jobs; this point is mentioned in Sorensen (1981), p. 27. Furthermore, such job evaluations may undermine collective bargaining powers, since they will build rigidities into the pay hierarchy.

The claim that increasing women's pay under comparable work judgments will jeopardize the profitability of firms by increasing total labour costs was discussed earlier. The Stanford Research Institute (SRI) estimated that the increase in wages needed to remove the supposed discriminatory gap that existed in the United States in 1980 would be in the order of $90 billion; see Davis and Spengelman (1982), p. 9.

Affirmative action is espoused because the remedies available in the current equal work and work-of-equal-value legislation do not appear to be removing the historical differences between men's and women's compensation and activities in the labour market. Affirmative action is described by the Saskatchewan Department of Labour as positive action taken by employers or unions to remove barriers that discriminate against women or minorities and block their progress.[15] The federal Department of Employment

and Immigration defines it as correcting employment systems that discriminate against minority groups and women.[16]

Both these governments will provide assistance and advice to companies who wish to organize affirmative action programs. There have been various government moves towards affirmative action programs. The Equal Employment Opportunity Program for women has been developed in the federal Public Service, and Manitoba developed a New Careers Program to provide training and employment opportunities for the disadvantaged. Both Alberta and Saskatchewan have undertaken to hire northern Indians on AMOK and SYNCRUDE. The Saskatchewan Human Rights Commission, however, felt that the impact of such voluntary and piecemeal programs would, of necessity, be very scattered. They felt that the only way to provide any sustained impact on the labour market is through some form of contract compliance.[17]

Moore and Laverty, in a rather elegiac review of affirmative action in Canada at the end of International Women's Year, agreed.[18] They were firmly of the opinion that it is the responsibility of government to deal with human rights and social changes, and if voluntary affirmative action programs do not result in observable changes, then regulatory legislation may be required. They pointed out that private corporations should be allowed to treat the substantial costs involved in affirmative action programs as

deductible business expenses. "If governments consider affirmative action as an important social need, it is reasonable to expect taxpayer support on the same basis as other social programs. Allowing corporations to deduct affirmative action costs from tax payable would stimulate corporate response [Moore and Laverty (1977), p. 23]." They also pointed out that objectives are not quotas and that setting objectives requires sensible and thorough analysis of both the needs of the firm and the resources available. A good clarifying example of their point is provided by the objectives set up for affirmative action in the Saskatchewan Public Service. The objective for the proportion of female engineers is considerably lower than that of other fields because a realistic assessment of the market revealed that trained female engineers were simply not available. It was felt that it would take up to 15 years to hire appropriately qualified women in that area. Lazar (1982) also believed that there should be some flexibility in quotas and the time required to reach them, although he appeared to use the word "quota" in the same sense as Moore and Laverty used the word "objective."

Another aspect of Moore and Laverty's assertion that equal pay may be regarded as a social need is that we can expect equal pay legislation to be pursued more or less enthusiastically, depending on the state of the economy. In times of high unemployment, such legislation is regarded as

relatively unimportant. It is also possible to observe changes in the labour force participation of women in response to changes in the economic climate. This was acknowledged during both world wars, when labour shortages produced policies that encouraged women to enter the labour force. During the First World War some firms paid men and women the same rates for performing similar work [see Canada Department of Labour (1959), p. 5]; in fact, the Minister of Labour issued the following statement during the last year of the war: "Women on work ordinarily performed by men should be allowed equal pay for equal work and should not be allotted tasks disproportionate to their strength" (p. 6). The question of equal pay for equal work was not addressed in the interval between the two wars, but it gained prominence again during the Second World War. At the end of the war it was the unions that campaigned for the legislation, and in 1951 the International Labour Organization adopted the Convention of Equal Remuneration for Men and Women Workers for Work of Equal Value.

More recently, Diane Werneke set out to examine the impact of cyclical fluctuations on the labour force participation of women in Belgium, France, Sweden, and the United Kingdom.[19] She traced the increase in the participation of women in the labour force and their continued concentration in industries characterized by low concentration and low wages. She also noted the parallel between the increase in

the number of women in the labour force and the number who are unemployed, as well as the socialization that occurs in the schools: "Although conscious efforts are being made to break down these stereotypes, one still finds that in the universities women are more likely to enter the liberal arts faculties, while in the technical schools they frequently pursue courses preparing them for the traditionally 'feminine occupations' [Werneke (1978), p. 39]." In spite of the level of aggregation, which made it difficult to distinguish between discouraged workers who left the labour force and additional workers who joined it, Werneke concluded that employment conditions in some industries deteriorated more for women than for men in all countries. She drew the general conclusion that as the recession of 1976 spread throughout the economies women in low-skilled jobs were the first to be let go, and they found it harder to find other jobs because of their narrow concentration. She stated (p. 51) that "in a period of economic slowdown the narrowness of their occupational base proved a major obstacle to securing suitable employment and impeded efforts to break away from the type of jobs traditionally regarded as 'feminine'." She also mentioned that institutional rules such as seniority also affect women adversely in a recession, since women move in and out of jobs more frequently than men.

Because women respond to cyclical fluctuations differently than men, they may well experience higher unemployment during cyclical downturns, in spite of legislative remedies.

Lazar also produced an interesting argument that in fact affirmative action programs make the job search market more efficient. He assumed that job seekers are risk-averse and rank firms to be searched for jobs in declining order of expected returns. These returns depend on the expected wage offer, the probability of the offer, and information about the firm. Without affirmative action, women's information about certain job fields is restricted (since they learn of opportunities through friends, and so on), and the probability of job offers is low; thus women are distinctly restricted and disadvantaged in the range of their job searches. Without affirmative action,

> ... the information available on the 'less traditional' occupations for women would contain much more noise ... and many more gaps. Therefore, in the presence of risk aversion, women likely would confine their search activities to the 'traditional' occupations and continue to be overcrowded in them [Lazar (1982), p. 15].

The analysis is entirely consistent with the aim of affirmative action programs to remove barriers that prevent women and others from moving into nontraditional occupations. He suggested that one barrier that has not been sufficiently examined is the lack of information available to women about

job openings and their (probably accurate) lower expectation of finding jobs. Lazar discussed the problem from the point of view of the searcher; hence he did not deal with the inevitable increased cost of affirmative action programs to the employers.

The economic climate in Canada might well affect the enthusiasm of governments in effecting legislative change. The same phenomenon may well have occurred recently in the United States. The contract compliance regulations of the Carter administration (December 1980) have been substantially modified by new proposals, although large federal contractors (i.e., hiring 500 or more employees) will not be affected by these changes; see Silbergeld (1982). Briefly, these modifications will increase the minimum size of an establishment that is required to submit affirmative action programs, will allow those firms to go without review for five years, and will relax the criteria for a firm to meet the guidelines. Under the new guidelines, when women or persons in any minority are employed at a rate of at least 80 per cent of their frequency in the "relative work force," then the firm will be considered to have reasonably used the minorities and women available.

The raising of the threshold from 50 employees and $50,000 in federal contracts in any year to 250 employees and $1 million in contracts must reduce the number of firms

required to file written affirmative action programs. Also, there is now no review of these firms before contracts are awarded. This will tend to leave the United States in the situation that the Saskatchewan Human Rights Commission has decried in Canada: affirmative action programs will become the exception rather than the rule, and without strong government support they will lose much of their impetus. The view of affirmative action programs by some sectors of society is subtly captured in this conclusion: "While some of the burdensome aspects of affirmative action compliance imposed by OFCCP regulation are alleviated by the new rules, major federal contractors will still be required to implement, maintain and update affirmative action programs and submit to compliance reviews. Litigation is almost certain to continue, however, with respect to unresolved issues, such as the constitutional and statutory authority for the executive order and the scope of its coverage [Silbergeld (1982), p. 237]." This view sees only the negative aspects of affirmative action - its costs to the firm and the potential curtailment of the firm's powers.

The very real problem of defining equal work is not nearly as difficult as grappling with the conceptual problem of "work of equal value" or the case for affirmative action. The tools of economics do little to illuminate these notions, although they do help to describe their effects.

Lazar's suggestion that affirmative action may improve opportunities for women by increasing the information available to them (and others) is the only objective argument in support of such a policy.

The use of job evaluation systems for distinguishing work of equal value does not derive from economic theory. Marginal productivity theory depends on the two sides of the market (demand and supply) and not just the supply side, which is the main basis of job descriptions.

8 CONCLUSIONS

The conclusions to be drawn from all of this are as follows:

1. We can expect to see a continuation of the differential between men's and women's wages in the future. The role of women in the family will result in average women exhibiting a lower attachment to the labour force. This differential may be reduced by equal pay legislation and by changing socialization, but it will never be eradicated.

The difference in compensation carries over into other areas as well. For instance, equal pay for equal work will provide equal pensions to men and women who have spent equal time in the labour force; however, it will not redress the inequalities in pensions caused by women having to spend time outside the labour force to raise families or care for husbands. Pension reform is required to provide adequate pensions for all elderly people, regardless of their labour force history.

2. Equal-pay-for-equal-work legislation will certainly correct anomalies in those areas in which it is applicable. Since it applies within firms only to workers performing identical jobs, its impact will not be pervasive. The arguments that equal work need not be compensated by equal

pay are not economically sound, but the imposition of equal pay does have distributional and allocational effects. Such laws may result in increased unemployment of women and in a redistribution of income away from owners of firms to workers.

3. Equal-pay-for-work-of-equal-value legislation at the moment has little application in Canada, but it is embodied in the Human Rights Act. The impact of this law will not be evident for some years. Given the difficulty of both economic and legal interpretation, the effect of the law is uncertain.

4. The educational and social status of girls before they enter the labour market has a bearing on their position in the workplace. Such laws may very slowly affect young girls' expectations, but we can expect such changes to be slow and small. The indisputable difference between men's and women's lives implies that there must always be some differences between the average woman's and the average man's commitment to the labour force; this will be reflected in their lifetime earnings.

5. Affirmative action programs are appropriate at school level for providing guidance and counselling to girls. Lifestyles are certainly changing, and women are becoming

more aware that they must spend at least part of their lives in the labour force.

6. Affirmative action programs have received little support in Canada. They are, in any case, short-run schemes that will eventually die out as the institutional structure of the economy changes. The only viable approach to providing equality for women in the market place over the long run is the provision of equal opportunity for women in their schooling and in their domestic and social lives. Equality of compensation in the market place may be a chimera, but equality of opportunity certainly is not; and this may be gauged by the satisfaction exhibited by women in both their careers and their lives.

NOTES

1 Canada Department of Labour, Equal Pay for Equal Work (Ottawa: 1959), p. 2.

2 R. Mendelsohn, The Condition of the People: Social Welfare in Australia, 1970-1975 (Sydney: Allen and Unwin, 1979), pp. 163-64.

3 For example, legislation in Australia in 1972 and in the United States in 1964 (the Civil Rights Act). The International Labour Organisation prepared a statement on Equality of Opportunity, and Treatment for Women Workers [Informational Labour Conference, 60th Session, 1975, Report No. 8, Geneva (first published in 1974)]. The Australian Equal Pay Act can be found in the "ILO Legislative Series: Chronological Index of Legislation, 1919-78," Geneva, 1980.

4 A useful description of equal pay legislation is contained in "Equal Pay in Canada," a report prepared by the Women's Policy Committee, Canadian Association of Administrators of Labour Legislation (CAALL), July 1977. Since 1976, equal pay for work of equal value has been legislated in Quebec and also at the federal level in the Human Rights Act (1978).

5 Margaret R. Davis and Robert C. Spengelman, The Comparable Worth Controversy, SRI Research Report No. 660 (Palo Alto: SRI, April 1982).

6 Buchanan and Tollison made precisely that point on p. 30, where they noted that their "labour" axis does not denote some homogeneous good, but simply ranks the inputs for the team production by their reservation prices. In fact the homogeneity imposed in the classical analysis is in the anonymity of the inputs and their permutability.

7 Ontario Ministry of Labour, Equal Pay for Work of Equal Value (Toronto: 1978). The work they cited was: Organisation for Economic Co-operation and Development, Wages and Labour Mobility (Paris: OECD, 1965), p. 17.

8 Science Council of Canada, Who Turns the Wheel? Proceedings of a Workshop on the Science Education of Women in Canada (Ottawa: Supply and Services Canada, 1982).

9 C. P. Snow, "The Two Cultures," The New Statesman, 52, no. 1334 (October 1956):413-14.

10 Jane Gaskell, "Education and Career Choice Enrollment Data and Beyond," a paper presented to the SSHRC conference on "Data Requirements to Support Research into Women and the Canadian Economy," December 9-10, 1982, Institute of Social and Economic Research, University of Manitoba, Winnipeg, Manitoba.

11 J. Scott, "Science Subject Choice and Achievement of Females in Canadian High Schools," International Journal of Women's Studies, 4, no. 4 (september-october 1981):348-61.

12 André Laurent, "Equality in Social Security in the EEC," International Labour Review 121, no. 4 (July-August 1982):373-85.

13 As reported in Canadian Labour Congress, Report of the Ad Hoc Working Group on Maternity/Parental Leave (Ottawa: CLC, January 1982).

14 See Davis and Spengelman (1982) for a discussion of Lemons vs. the City of Denver, which supported the "equal work" view, and Gunther vs. the County of Washington, where the court supported the "comparable work" notion.

15 Saskatchewan Department of Labour, An Affirmative Action Handbook, Women's Division (Regina: 1981), p. 1.

16 Employment and Immigration Canada, Affirmative Action, pamphlet (Ottawa: no date).

17 Saskatchewan Human Rights Commission, Affirmative Action News, no. 1, January 1981.

18 Joy Moore and Frank Laverty, "Affirmative Action: A Sadly Passive Event," The Business Quarterly (1977):22.

19 Diane Werneke, "The Economic Slowdown and Women's Employment Opportunities," International Labour Review 117, no. 1 (January-February 1978):37-51.

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