T.D. 7/98
Decision rendered on July 29, 1998

THE CANADIAN HUMAN RIGHTS ACT
(R.S.C., 1985, c. H-6 (as amended))
HUMAN RIGHTS TRIBUNAL
BETWEEN:
PUBLIC SERVICE ALLIANCE OF CANADA

Complainant

- and -

CANADIAN HUMAN RIGHTS COMMISSION

Commission

- and -

TREASURY BOARD

Respondent

DECISION OF THE TRIBUNAL - PHASE II

Tribunal: Donna Gillis, Chairperson

Norman Fetterly, Member
Joanne Cowan-McGuigan, Member

Appearances: Andrew Raven

Counsel for the Public Service Alliance of Canada — Rosemary Morgan and René Duval
Counsel for the Canadian Human Rights Commission

Duff Friesen, Lubomyr Chabursky and Deborah Smith
Counsel for Treasury Board

Location of Hearing: Ottawa, Ontario

Reference: T.D. 2/96
February 15, 1996

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APPENDIX A - GLOSSARY OF TERMS

I. INTRODUCTION

A. The JUMI Study

1. The Clerical and Regulatory (CR) group of the Federal Public Service filed a complaint with the Canadian Human Rights Commission (the "Commission") on December 19, 1984, alleging discrimination under ss. 7 and 11 of the Canadian Human Rights Act, R.S.C., 1985, c. H-6 (the "Act"). The complaint alleges its members are performing work of equal value to members of the predominantly male Program Administration (PA) group. The complaint, (Exhibit HR-10), reads in part:

> We allege that members of the predominantly female Clerical and Regulatory group of the federal public service who are performing work of a value equal to members of the predominantly male Program Administration group have been, since the creation of the groups, and are being paid lower wages for that work in contravention of Sections 7 and 11 of the Canadian Human Rights Act.

2. In March 1985, the Government initiated a program of proactive measures with respect to the identification and elimination of sex-biased pay in the Federal Public Service. The Government announced those measures on March 8, 1985 indicating "...[t]his government intends to ensure that the principle of equal pay for work of equal value is applied in the Federal Public Service..." The Government's initiative formally commenced three months following the complaint filed on December 19, 1984.

3. The Federal Public Service unions were invited to participate in the Government's initiative which was called the Joint Union-Management Initiative (the "JUMI"). Details of the JUMI have been provided by the Tribunal in two earlier decisions. (see Public Service Alliance of Canada et al. v. Treasury Board, (1992), (the "Voir Dire") and Public Service Alliance of Canada et al. v. Treasury Board, (1996), T.D. 2/96 (the "Phase I decision").

4. The JUMI conducted a study, (the "JUMI Study"), to determine the degree of sex discrimination in pay in the Federal Public Service. The Commission was invited to participate in the JUMI Study by fulfilling the role of observer. The Commission also provided guidance to the JUMI Committee which directed the initiative. As a result of the JUMI the Commission agreed to hold the 1984 s. 11 complaint in abeyance pending the completion of the JUMI Study. The Commission also agreed to postpone all s. 11 complaints against the Treasury Board filed after the announcement of the JUMI Study and to await the results of the study before investigating any outstanding complaints.

5. With the breakdown of the JUMI Study the action plan agreed to by the JUMI Committee was never completed. That plan called for the JUMI Committee to devise methods for system wide correction to eliminate sexually based wage disparities. The plan was never

implemented. Rather, in early 1990, the government took the unilateral measure of providing equalization payments to three occupational groups, the Clerical and Regulatory (CR) group, the Education Support (EU) group and the Secretarial, Stenographic & Typing (ST) group. The government used the evaluation results of the JUMI Study to calculate the equalization payments.

6. After the collapse of the JUMI Study, the Public Service Alliance of Canada (the "Alliance") filed a separate complaint on February 16, 1990, on behalf of six female-dominated occupational groups that were surveyed in the JUMI Study. It alleged discrimination in pay contrary to s. 11 of the Act. The complaint identified employees in the CR occupational group and five other female-dominated occupational groups. That complaint (Exhibit HR-10) reads in part:

> It is alleged that the results obtained through the process of the Joint Union-Management Initiative on Equal Pay for Work of Equal Value have demonstrated the existence of wage rates which are in contravention of Section 11 of the Canadian Human Rights Act. Specifically, the wages received by the employees of female dominated occupational groups of CR, ST, DA, EU, HS and LS are lower than the wages earned by employees of the 53 male dominated occupational groups included in the study who perform work of equal value. It is further alleged that this wage difference is gender based, and that the equalization adjustments to the CR and ST groups announced by Treasury Board on January 26, 1990 are not sufficient to correct this contravention of Section 11.

7. During the JUMI Study the Commission was provided with the results of the job evaluations that were conducted. The Commission and the Alliance rely on the JUMI Study results to allege a contravention of s. 11 of the Act.

B. History of Section 11 Complaints

8. Ms. Elizabeth Millar, Head, Classification and Equal Pay Section, Collective Bargaining Branch for the Alliance, reviewed the history of s. 11 complaints filed by the Alliance with the Commission after s.11 of the Act was proclaimed in force on March 1, 1978. In November 1979, the first complaint was filed on behalf of 3,300 employees in three female-dominated sub-groups of the General Services (GS) group claiming discrimination when compared with the four male dominated sub-groups in the same occupational group (the "GS complaint"). The then 12,100 member GS group had seven sub-groups, each paid at different rates. The three lowest paid sub-groups, food, laundry and miscellaneous personal services, were female-dominated according to the Commission's calculations and the remaining four, messenger, custodial, building and stores services were male-dominated. This complaint was further complicated by the fact there were 22 zones or regions paying rates different from the national rates. A Tribunal was appointed to hear the complaint. Prior to the Tribunal hearing a settlement was reached in March 1982. The settlement equalized each female sub-group regression pay line to the average regression pay line for the four national male sub-groups. (see Section IX). According to Ms. Millar the methodology of settlement of the GS complaint became embodied in the amendments to the 1986 Equal Wages Guidelines, (the "Guidelines"), passed pursuant to the provisions of the Act, for adjusting wages in group complaints.

9. Both Ms. Millar and Mr. Paul Durber, Director of Payment Equity with the Commission, referred to the Library Science (LS) occupational group complaint, also filed in 1979, which dealt with the issue of indirect comparisons. The LS occupational group is an occupational group of the Respondent. That was a case filed by the Alliance on behalf of the entire female-dominated LS occupational group claiming discrimination in comparison with the male-dominated Historical Research (HR) group of the Respondent. During the investigation the Commission evaluated positions drawn from each level in each group. The complaint was settled in 1980. The methodology for adjustment is found in a paper entitled "Equal pay for Work of Equal Value in the Federal Public Service of Canada" prepared in 1983 by John G. Campbell, Head, Equal Pay and Classification Research, Personnel Policy Branch, Treasury Board of Canada Secretariat, (Exhibit PSAC-94). In his paper Mr. Campbell describes the methodology used to adjust the wages of the LS occupational group at p. 47:

> An adjustment was derived for each pay level of the Library Science group from the plotted pay difference between the Historical Research pay line and the mid-range salary of the Library Science level at the average point evaluation for the level. [emphasis added]

10. According to Ms. Millar another complaint grew out of the GS complaint. In 1981 the Alliance filed the Hospital Services (HS) complaint. The Complainant jobs included cooks, dietary aides, orderlies, nursing and dental assistants and other members of a predominately female hospital services occupational group. The comparative jobs were the predominantly male jobs in the GS group which included cooks, messengers, laundry, stores and ground staff. HS jobs were compared to GS jobs using a classification standard (job evaluation plan for the GS jobs). A settlement was reached in July 1987 for adjusting the rates of pay for each level in the HS occupational group to the corresponding level in the GS occupational group. It was agreed that similarly valued points between the two groups were to be paid the same wage. That meant, for example, a 200 point-rated HS job was to be paid the same as a 200 point-rated GS job. The settlement was incorporated into a Human Rights Tribunal's Order. In 1987 that Tribunal ordered the employer to pay 5,000 workers the settlement amount. Both the Alliance and the Respondent agreed before this Tribunal the Order of 1987 does not preclude further adjustments if this Tribunal finds a wage gap still exists as a result of the JUMI Study.

11. Mr. Durber provided examples of other s. 11 complaints the Commission has investigated since 1978. The majority of s.11 complaints were settled with the consent of the Commission. These include both individual and group complaints. The Commission has accepted s. 11 complaints lodged by various public sector unions on behalf of sub-groups of occupational groups. It is noted one complaint compared work from one sub-group to another sub-group within the same occupational group.

12. Mr. James Sadler, a Senior Consultant in the Equal Pay Section of the Commission, testified to the effect that not all complaints lodged with the Commission are against the Treasury Board or the Public Service of Canada. Other employers included a mining company, a national trucking company, a security services company, an airline, a native band council and the Territorial Government. Those employers did not have the same formalized group classification structure which exists in the Federal Public Service. The evidence reveals

settlements were reached using both direct and indirect methods of comparison. (see Section VII, E(i)).

13. Moreover, the evidence demonstrated not all the groups who complained were occupational groups of this Respondent.

C. The Commission's Investigation Process for Complaints Under Section 11 of the Canadian Human Rights Act

14. Mr. Sadler outlined the investigation process followed by the Commission for a s. 11 complaint. He testified it usually originates when a complainant contacts the Commission and alleges discrimination under the terms of s.11 of the Act. At that stage the Commission elicits as many facts as are available from the complainant. Commission staff then review and analyse the intake information to determine whether there is, in fact, a gender problem; whether it is an individual or group problem; whether the complainant and the group complained about are employed by the same employer in the same establishment. The Commission then advises the potential complainants whether or not they should proceed to register a complaint.

15. Following acceptance of the complaint by the Commission an investigator is designated to investigate the complaint. Although not required to do so under the Act or the Guidelines, the Commission then notifies the employer of the nature of the complaint and includes some of the details. The notification includes the investigator's name and requests that the respondent submit any defences available to it. The respondent is also asked to produce relevant materials required for a preliminary investigation such as classification plans, job descriptions, a list of employees and other pertinent information.

16. Upon receiving a response from the employer an analysis of the response is conducted to determine whether the information received from the employer is contrary to that received from the complainant. If, in the opinion of the Commission, a valid defence is raised by the employer it will then determine whether its investigation should proceed or be discontinued at that stage.

17. If the complaint continues beyond this point the investigator begins a job fact gathering exercise. This may include sending job descriptions to all employees or a statistically selected sample of employees with questionnaires relating to the four criteria specified in the Act, i.e., skill, responsibility, knowledge and working conditions. During this stage the Commission expects the supervisory and management individuals within the organization to review and comment on the completed questionnaires. After a review of the questionnaires the Commission interviews specific incumbents and their supervisors and, in certain cases, reviews manuals and documentation. The investigator may observe what machinery or equipment may be required to do the job. Typically the investigator conducts a field audit to observe the employees at work. A desk audit may also be conducted by the investigator. This involves reviewing the documentation, job questionnaires and job descriptions.

18. Once all the job fact information has been gathered the Commission normally establishes a job evaluation committee, usually consisting of three individuals, to perform job evaluations. If the employer has an existing job evaluation system the Commission uses s. 9 of the Guidelines to

analyse that system and to determine its suitability for a pay inequity complaint. Otherwise, the Commission uses the Aiken or Hay job evaluation plan. Section 9 of the Guidelines reads:

> Method of Assessment of Value
>
> 9 Where an employer relies on a system in assessing the value of work performed by employees employed in the same establishment, that system shall be used in the investigation of any complaint alleging a difference in wages, if that system
>
> (a) operates without any sexual bias;
> (b) is capable of measuring the relative value of work of all jobs in the establishment; and
> (c) assesses the skill, effort and responsibility and the work conditions determined in accordance with sections 3 to 8.

19. The next step in the process, according to Mr. Sadler, is the wage gap analysis which involves comparing the value and wages of the female group against the value and wages of the male group to determine any short falls. Mr. Sadler explained this will complete the investigation. Before a formal report is submitted to the Commissioners the investigator discloses the findings of the investigation to the complainant and the respondent employer. At this stage the investigator informs the parties as to the Commission's proposed recommendations and provides "informal advice to the parties."

20. The Commission then prepares a formal investigation report which is disclosed to the Commissioners and delivered to the complainant and the respondent employer for review. The parties are given 30 days in which to make any submissions concerning the report and to raise issues they wish to have considered. The maximum amount of time allotted is 60 days but the Commission will consider requests for more time. If the parties make submissions the investigator who is charged with the complaint is required to consider all the facts raised in the submissions and to determine whether or not there is a basis on which to reopen certain aspects of the investigation. The investigator may also decide whether the material submitted by the parties justifies a response by the Commission. Copies of the submissions are delivered to the opposite party in order to provide it an opportunity to comment. When this stage is complete the submissions are attached to the final report with the investigator's comments.

21. Consequently either the original report or an amended version of the report will be submitted to the Commissioners who, in their regularly scheduled meetings, will consider the complaint. Following some discussion the Commissioners determine whether to dismiss the case, refer it to a Tribunal or suggest an appropriate resolution of the complaint. Subsequently the Secretary to the Commission notifies the parties in writing of the Commission's decision.

22. We note that not all of the steps in the investigation process outlined by Mr. Sadler were followed by the Commission in its investigation of the complaints now before this Tribunal.

23. The Commission's investigation into the two complaints before us began in March 1990 following the collapse of the JUMI Study. Details of the Commission's investigation were provided in the Tribunal's Phase I decision on the issue of reliability. During the investigative

stage the Commission retained Mr. Sunter, a former director of Statistics Canada, to assist in its investigation. His work included an analysis of gender bias in the job evaluation results and a wage gap analysis involving a critique of the Treasury Board's methodology of wage adjustment used by the Respondent in formulating the unilateral wage adjustments in January 1990.

24. Mr. Sunter became involved in the analysis of the JUMI Study data on April 5, 1990. He completed five reports on the subject of gender bias and wage gap analysis. His recommended wage adjustment methodology was eventually adopted by the Commission.

25. We note Mr. Sunter's first report, "Sex-Based Wage Disparity in the Public Service of Canada - I, (Exhibit HR-156), is dated May 1990. The second report prepared for the Commission, "Sex-Based Wage disparity in the Public Service of Canada - II, Analysis for Seven Female-Dominated Groups", (Exhibit HR-199), is not dated but Mr. Sunter testified it was done sometime between April and June of 1990.

26. Mr. Sunter's next report entitled "Sex-Based Wage Disparity in the Public Service of Canada", (Exhibit HR-206), is also undated but was completed somewhere between April and June of 1990. His fourth report on the subject, entitled "Sex-Based Wage Disparity in the Public Service of Canada", (Exhibit HR-146), is dated October 1991. On p. 2 of this report he refers to the previous reports. According to this reference the date beside the fourth report is September 1991. Mr. Sunter's last report, (Exhibit HR-200), dated October 1992 is a supplement to his second report, entitled "Sex-Based Wage Disparity in the Public Service of Canada - Supplement to Report II".

27. Due to the intervention of the JUMI Study, the Commission's investigation of these complaints was modified in a number of key areas. The most notable are as follows:

> (i). The JUMI Committee used the constituted occupational groups under the employer's classification system to select jobs to be evaluated in the JUMI Study. Jobs in the Federal Public Service are classified into occupational groups. The JUMI Committee agreed only male- and female-dominated occupational groups, as defined in s. 13 of the Guidelines, would be included in the JUMI Study. Based on s. 13 of the Guidelines, excepting the Executive Category, the JUMI Committee agreed as of March 1985 there were nine female-dominated occupational groups, fifty-three male-dominated occupational groups and eight gender-neutral occupational groups. Positions from the eight gender-neutral occupational groups were then excluded from the study. The Alliance, the Commission and the Respondent have accepted the occupational groups designated by the JUMI Committee and informed this Tribunal that the sex predominance of the complainant groups and the comparator groups was not and is not in issue. Thus the Commission was relieved of its initial task of determining the sex predominance of complainant and comparator occupational groups pursuant to s. 13 of the Guidelines; and
>
> (ii). The Commission itself did not embark on a process for evaluating work. Rather the evaluation results of the JUMI Study were accepted by the Commission as evidence of the value of work. Because the Commission's

investigation into s. 11 complaints against the Treasury Board were held in abeyance during the JUMI Study the Commission suspended its involvement to await the results of the JUMI Study. These results were tendered before this Tribunal as evidence of the value of work performed by male and female employees whose work is the subject of these complaints.

28. The Commission's wage gap analysis conducted by Mr. Sunter was disclosed to the parties in the Commission's Investigation Report of September 28, 1990 (Exhibit HR-43). This report referred to the revised scores, which included across-the-board adjustments used by the Respondent to calculate the wage equalization payments made in February 1990. It also included Mr. Sunter's critique of the Treasury Board's methodology and his proposed methodology of level-to-segment, which was adopted by the Commission.

29. The Commission's final investigation report went to the Commissioners in late September 1990. On October 16, 1990, the Commission decided to refer the issue of wages to a Tribunal. (Exhibits HR-10 and PSAC-25). This included the 1984 complaint and the 1990 complaint. On January 23, 1991 this three member Tribunal was appointed to conduct a hearing into the two complaints affecting members of the Alliance and other s. 11 complaints filed by the Professional Institute of the Public Service of the Canada (the "Institute"). On May 10, 1991, pursuant to the Act, the Commission requested the scope of the Tribunal be extended to include indirect compensation. (Exhibit T-2).

30. On September 9, 1991, the hearing formally commenced. The Institute's complaints are no longer before us. Those complaints were resolved by a negotiated settlement in 1995. A Consent Order was issued by this Tribunal dated May 31, 1995, giving effect to that settlement.

D. Expert Testimony

31. The evidence concerning calculations of pay differentials was provided, for the most part, by three qualified experts. Two of these experts, produced by the Commission included the statisticians, Mr. Alan Sunter and Dr. Richard Shillington. Mr. Sunter, a former Director at Statistics Canada was hired by the Commission during its investigation into the complaints. Mr. Sunter provided the Commission with an analysis of the wage gap using a wage adjustment methodology described as "level-to-segment". In Mr. Sunter's opinion this methodology demonstrates a wage gap between the complainant employees and the comparator employees.

32. Dr. Shillington testified as to his involvement in the JUMI Study. In the course of that testimony he gave his opinions on Sunter's analysis regarding the statistical technique of regression analysis and on wage adjustment methodology in general.

33. The third expert Dr. Eugene Swimmer, produced by the Alliance, was accepted as an expert in labour economics and statistics. He testified almost exclusively on the Alliance's preferred wage adjustment methodology referred to as the "level-to-composite".

34. Aside from the statistical experts the Tribunal had the benefit of the testimony of Dr. Nan Weiner, a pay equity expert with an international reputation, produced by the Commission in order to "educate" the Tribunal in the varied aspects of pay equity including wage adjustment

methodology. Mr. Norman Willis, a pay equity expert, whose "Willis Plan" formed the basis of the JUMI Study provided consultative services to the JUMI Committee. He provided the Tribunal with his opinions about many aspects of pay equity including appropriate wage adjustment methodologies.

35. Lastly evidence of a statistical nature was provided by Mr. Terry Ranger on behalf of the Alliance. Mr. Ranger has been employed with the Alliance since September 1976 and is currently the Head of the Research Section in the Collective Bargaining Branch. His job requires an understanding of statistical methodology and principles. He provided the Tribunal with a historical perspective of wage adjustment methodology. He explained the Alliance's approach in wage adjustment methodology based on the composite line.

36. Two Commission expert witnesses, Mr. James Sadler and Mr. Paul Durber, testified as to the Commission's understanding of the application of s. 11 of the Act and the companion Guidelines when investigating s. 11 complaints. Mr. Durber provided background information about the work of Mr. Sunter and the Commission's views of Sunter's wage adjustment methodology.

II. ISSUES

37. The fundamental issue before the Tribunal is whether the Complainants have established a prima facie case of discrimination contrary to s. 11 of the Act. It calls into question the interpretation of s. 11 of the Act and the sections of the companion Guidelines pertaining to group complaints. Those sections read:

> The Act:
>
> 11. (1) It is a discriminatory practice for an employer to establish or maintain differences in wages between male and female employees employed in the same establishment who are performing work of equal value.
>
> (2) In assessing the value of work performed by employees employed in the same establishment, the criterion to be applied is the composite of the skill, effort and responsibility required in the performance of the work and the conditions under which the work is performed.
>
> (3) Separate establishments established or maintained by an employer solely or principally for the purpose of establishing or maintaining differences in wages between male and female employees shall be deemed for the purposes of this section to be the same establishment.
>
> (4) Notwithstanding subsection (1), it is not a discriminatory practice to pay to male and female employees different wages if the difference is based on a factor prescribed by guidelines, issued by the Canadian Human Rights Commission pursuant to subsection 27(2), to be a reasonable factor that justifies the difference.
>
> (5) For greater certainty, sex does not constitute a reasonable factor justifying a difference in wages.

(6) An employer shall not reduce wages in order to eliminate a discriminatory practice described in this section.

(7) For the purposes of this section, "wages" means any form of remuneration payable for work performed by an individual and includes

(a) salaries, commissions, vacation pay, dismissal wages and bonuses;
(b) reasonable value for board, rent, housing and lodging;
(c) payments in kind;
(d) employer contributions to pension funds or plans, long-term disability plans and all forms of health insurance plans; and
(e) any other advantage received directly or indirectly from the individual's employer.

1976-77, c. 33, s. 11.

The Guidelines:

Complaints by Groups

12 Where a complaint alleging different wages is filed by or on behalf of an identifiable occupational group, the group must be predominantly of one sex and the group to which the comparison is made must be predominantly of the other sex.

13 For the purpose of section 12, an occupational group is composed predominantly of one sex where the number of members of that sex constituted, for the year immediately preceding the day on which the complaint is filed, at least

(a) 70 per cent of the occupational group, if the group has less than 100 members;
(b) 60 per cent of the occupational group, if the group has from 100 to 500 members; and
(c) 55 per cent of the occupational group, if the group has more than 500 members.

14 Where a comparison is made between the occupational group that filed a complaint alleging a difference in wages and other occupational groups, those other groups are deemed to be one group.

15 (1) Where a complaint alleging a difference in wages between an occupational group and any other occupational group is filed and a direct comparison of the value of the work performed and the wages received by employees of the occupational groups cannot be made, for the purposes of section 11 of the Act, the work performed and the wages received by the employees of each occupational group may be compared indirectly.

(2) For the purposes of comparing wages received by employees of the occupational groups referred to in subsection (1), the wage curve of the other occupational group referred to in that subsection shall be used to establish the difference in wages, if any, between the employees of the occupational group on behalf of which the complaint is made and the other occupational group.

38. The Tribunal will address the most appropriate wage adjustment methodology for estimating the existence and extent of the pay equity wage gap as it pertains to the complaints before us.

39. Also, at issue is the method of comparison and the application of the law in the case of a group complaint.

III. SUBMISSIONS OF THE PARTIES

A. The Respondent

40. All parties are in agreement that in determining the extent of a wage gap under s. 11 of the Act it is necessary to employ a wage adjustment methodology. The Respondent contends the wage adjustment methodologies of the Commission and the Alliance pose two problems for the Tribunal. They are:

> (i). The wage adjustment methodologies proposed by the Commission and the Alliance assume s. 14 of the Guidelines to be valid. It is the position of the Respondent that s. 14 of the Guidelines is invalid because it is inconsistent with s. 11 of the Act.
>
> (ii). If, however, the Tribunal finds s. 14 to be valid, it is the Respondent's position, that the Commission's and the Alliance's wage adjustment methodologies must be rejected for other reasons. The Respondent contends the methodology proposed by the Canadian Human Rights Commission does not comply with s. 14 of the Guidelines because it selects individual male comparators from a combination of male-dominated occupational groups, and the resulting segmented comparator is not an "occupational group". In addition, the Respondent submits the Commission's methodology does not comply with s. 15 of the Guidelines because it uses only parts of male-dominated occupational groups, the values in the "low" or "high" range of the male-dominated occupational groups, (referred by the Respondent as "heads" and "tails") as comparators. The Respondent contends the language of s. 15 of the Guidelines specifically requires whole male-dominated occupational group comparators, not heads or tails.

The Respondent believes the Alliance's methodology, although consistent with the wording of s. 14 of the Guidelines, is contrary to the principle of equal value found in s. 11 of the Act because it combines male-dominated occupational groups performing work of unequal value.

41. The Respondent advocates that its wage adjustment methodology is the only methodology consistent with both s. 14 of the Guidelines and s. 11 of the Act. Pivotal to the Respondent's argument is the concept of causation. The Respondent seeks support for this argument from the Phase I decision, supra, which this Tribunal rendered on February 15, 1996. The Respondent contends the wage gap within s. 11 of the Act must be caused by gender-based discrimination. In its earlier decision the issue before the Tribunal was whether the job evaluation scores generated from the JUMI Study were reliable for purposes of the s. 11 complaints. The Respondent now submits because the Tribunal held s. 11 of the Act was

designed to redress systemic discrimination caused by "sex" it is incumbent on the Complainants and on the Commission to prove any pay differences between male and female employees must be caused by gender-based discrimination and not for any other reason.

42. Together with the causation factor the Respondent submits two other principles of law are expressed or implied in s. 11 of the Act. These principles are:

> (i) it is necessary to compare the wages of female employees only with the wages of male employees performing work of equal value; and
>
> (ii). the word "employees" must be given the same meaning in relation to both males and females, so that comparisons will be made on the basis of either individuals to individuals, or groups to groups.

43. In accordance with the principles found in s. 11 of the Act, the Respondent submits its wage adjustment methodology, based on the concept of "central tendency" (see Section IV, C(i)), is a sound approach in determining whether or not two occupational groups of different genders are performing work of equal value. Respondent counsel further contends ss. 12 to 15 of the Guidelines are clear and mandatory and that occupational groups must form the basis of comparison in group complaints.

44. Respondent counsel contends the purpose of the Guidelines is to implement the broad general principle of equal pay for work of equal value found in s. 11 o f the Act. According to the Respondent s. 14 of the Guidelines is invalid because it provides for the combination of comparator male-dominated occupational groups into a "deemed" group. This, they contend, is inconsistent with the concepts of causation and equal value required by s. 11 of the Act. The Respondent submits that to eliminate discrimination under s. 11 of the Act the female complainant occupational group can only be compared to the lowest paid male-dominated occupational group of equal value. According to the Respondent any differences in wages resulting from this comparison will be the result of gender-based discrimination and will thus satisfy the "causation" requirement of s. 11 of the Act.

45. The Respondent argues s. 14 of the Guidelines is inconsistent with the concept of causation because the difference in wages between the lowest paid "male" occupational group comparator and higher paid "male" occupational group comparator of equal value cannot be attributed to gender-based discrimination since s.11 of the Act only applies to occupational groups of different genders. For this reason the Respondent submits the Tribunal is precluded from making an inference that a difference in wages between a female-dominated occupational group and a "deemed" male group pursuant to s. 14 of the Guidelines is attributable to gender-based discrimination. The Respondent interprets the "deemed"group as the inclusion of all male-dominated occupational groups in combination to become the comparator group. (see Section IV, C(i)). This is because the deemed group comprises not only the lowest paid "male" occupational group but other higher paid "male" occupational groups as well.

46. The Respondent contends, therefore, the effect of s. 14 of the Guidelines allows for an adjustment of differences in wages which may be attributed to other factors such as market values or bargaining unit strength and further allows for the inclusion of male-dominated occupational groups of unequal value, as in the case of the Alliance's composite line.

47. The Respondent states causation is "operationalized" by s. 11 of the Act in two ways. The Tribunal is not acquainted with the meaning of the word "operationalized" and interprets it to mean activated. The first concerns the concept of equal value found in s. 11 of the Act. The Respondent contends equal value is mirrored in the Respondent's whole occupational group to whole occupational group wage adjustment methodology using the measurement standard of "central tendency". The second way causation is "operationalized" is that the Respondent's lowest paid male-dominated occupational group clearly establishes the pay difference with the female-dominated occupational group are caused by gender-based discrimination. The Respondent argues to include higher paid male-dominated occupational groups in the comparator will bring into consideration the "zone of non-discrimination" (a phrase coined by the Respondent in argument) contrary to s. 11 of the Act. It graphically described all male-dominated occupational groups of equal value to the lowest paid male-dominated occupational group.

48. The Respondent submits, if the Tribunal discards the concept of causation under s. 11 of the Act and finds s. 14 of the Guidelines valid, any adjustment in wages based on either the Alliance's composite line or the Respondent's whole deemed occupational group methodology will set into motion an opportunity for future complaints under s. 11 of the Act by any male-dominated occupational group which has been included in the "deemed" group under s. 14 of the Guidelines. The Respondent argues if a male-dominated occupational group finds itself below the average wage of the "deemed" group it can then complain to the Commission, pursuant to s. 11 of the Act, that it is entitled to have its wages adjusted to the average wage of the comparator group. The resulting phenomenon is described by the Respondent as "ratcheting." Should the complaint succeed an adjustment to the wages of the lower paid male-dominated occupational group would cause the average of the deemed group to rise creating a new pay equity gap between male and female employees thus starting the process of adjustment all over again. If the process of adjustments and counter-adjustments continues, the Respondent contends the wages of all groups used in the analysis would reach the wage level of the highest paid male-dominated occupational group comparator.

B. The Commission

49. The Commission contends the purpose and goal of the Act and s. 11 of the Act is "equality". It submits s. 11 of the Act is one of the primary provisions for identification and resolution of systemic discrimination in the Respondent's pay practices. The Commission argues the concept of "equality" enshrined in s. 11 of the Act is paramount and consistent with the nature and purpose of the Act as expressed in s. 2. According to the Commission the goal of the Act is to achieve equality of opportunity, the protection of rights and privileges in employment and the provision of services to all individuals. Within that framework it argues s. 11 also has as its purpose the achievement of equality of remuneration in employment regardless of sex.

50. The Commission contends the concept of "equality" embodies a standard of reasonableness which must not be restricted by a technical or narrow interpretation of the Act and the Guidelines. According to the Commission fairness implies reasonableness and s. 11 should be interpreted as requiring "reasonable" or "fair" treatment. Thus, the Commission contends, s. 11

seeks "on-average fairness," not necessarily the best solution nor the least possible solution but one that is the most reasonable.

51. The Commission contends the words "equal value" found in s. 11 of the Act gives rise to the principle of "averaging" applicable to group complaints. The Commission submits, within the context of compensation policies and practices, the Tribunal is entitled to rely on compensation experts, pay equity experts and statistical experts to determine the means by which pay equity can be achieved.

52. In order to achieve equality the Commission contends it is necessary to test for patterns of treatment of male work to obtain equality of result which will result in "on-average fairness". The identification of patterns is best demonstrated, according to the Commission, by its methodology of level-to-segment.

53. The Commission relies on the liberal approach adopted by the Supreme Court of Canada in interpreting the provisions of the Act to give effect and meaning to the rights enshrined in the legislation relying on Canadian National Railway Co. v. Canada (Human Rights Commission), [1987] 1 S.C.R. 1114 and Ontario Human Rights Commission and O'Malley v. Simpsons-Sears Ltd., [1985] 2 S.C.R. 536. It advocates a purposive approach to the interpretation of s. 11, one that is compatible with the scheme of the Act.

54. The Commission contends it is not the "classification" of the work that s. 11 of the Act is seeking to remedy. It argues the essential element in considering s. 11(1) of the Act is the meaning of "work" in the phrase "employees performing work of equal value". It submits the identification of occupational groups of equal value, which forms the basis of the Respondent's methodology, derogates from the focus of s. 11 which is the identification of "work" of equal value not "groups" performing work of equal value. The Commission submits in order to assist in the identification of work of equal value it promulgated the Guidelines pursuant to s. 27 (2) of the Act. It submits the applicable guidelines for group complaints includes ss. 12 through 15 of the Guidelines.

55. The Commission seeks a broad meaning for "work" and contends it is not groups which define work, rather, that work defines the group. It argues an overly restrictive approach to the interpretation of s. 11 of the Act and to the meaning of "work" could lead to absurd results. As an example the Commission argues not every employer's establishment has a classification system comprised of occupational groups. An employer may have individual male jobs unrelated by task or salary structure. An interpretation of "work" restricted to "groups" would render s. 11 inoperative which, the Commission contends, is inconsistent with the purpose and goals of the legislation. The Commission submits the intent of s. 11 of the Act must be to provide for comparison of "work" performed by male and female employees regardless of the occupational group designation of either the Complainant or the comparator.

56. According to the Commission, based on the testimony of Mr. Durber, one of the initial steps in investigating a group complaint under s. 11 of the Act is to identify the gender predominance of the complainant and the comparator group. The Commission submits ss. 12 and 13 of the Guidelines set out the means of identifying whether or not the "work" is male or

female. Identification of occupational groups is made at this stage by the Commission. The percentage criteria for assessing gender predominance is found in s. 13 of the Guidelines. In its view groups are used to identify gender predominance but are not included in the Commission's assessment of a wage gap which is provided for in ss. 14 and 15 of the Guidelines.

57. The Commission contends that with large group complaints, as in the complaint before the Tribunal, s. 14 of the Guidelines enables the amalgamation of the identified male work and the combination of male work becomes the "deemed group" for purposes of s. 14 of the Guidelines. Accordingly a comparison of work of equal value between the female work and the male work can then be conducted to determine whether the (female) Complainant groups are receiving equal pay to the equally valued work of the opposite gender (male) comparators. The Commission contends its methodology achieves this objective. According to the Commission, its methodology looks for patterns of male wages and selects male data from the "deemed" group that is "on average" to the point values of the female Complainant level, achieving "on-average fairness" in pay pursuant to the intention of s. 11 of the Act. It submits the level-to-segment methodology uses the most relevant data for comparisons.

58. The Commission submits the process for determining work of equal value under s. 11 of the Act, includes a four-step process. These steps are set out below:

> (i) Determine whether the comparator group and the Complainant group are of opposite genders, by applying s. 13 of the Guidelines.
>
> (ii) Evaluate the work employing a gender neutral job evaluation plan. This step ignores occupational groups and gender.
>
> (iii) Separate the genders between "male" dominant and "female" dominant "work", and compare the "work" to determine if it is of equal value.
>
> (iv) Choose a methodology to identify if there is a wage gap.

59. The Commission argues there is no requirement in s. 11 of the Act for a finding of fact that "sex" is the cause of the difference in pay between male and female employees. Moreover, the Commission argues, the differences in pay arising from their methodology are based on the compensable factors of skill, knowledge, responsibility and working conditions, all of which were evaluated in the JUMI Study. These compensable factors are enunciated in s. 11(2) of the Act and further clarified in ss. 3 through 8 of the Guidelines. The reliable job evaluation results produced in the JUMI Study are used by the Commission for estimating the wage gap. The Commission submits the resulting wage gap demonstrated by the level-to-segment wage adjustment methodology must then result from sexually based wage disparities.

60. The Commission further contends if causation is a factor it need only prove that "sex" is only one of several possibilities for the discrimination under s. 11 of the Act relying on Holden v. Canadian National Railway (1990), 112 N.R. 395 (F.C.A.) and Uzoaba v. Correctional Services of Canada, T.D. 7/94 at 91 (C.H.R.T.); affirmed (April 21, 1995), 94 F.T.R. 192 (F.C.T.D.)). The Commission submits the wage gap found to exist in the JUMI evaluations establishes discrimination on the ground of sex.

61. Lastly the Commission rejects the phenomenon of ratcheting both from a legal and an operational perspective. Testimony provided by Mr. Durber was to the effect the Commission adjusts both the female and the male values in the same manner in order to obtain a comparison by using averaging techniques. According to Mr. Durber the process of adjusting female evaluation results to an average male regression line does not discriminate against the male evaluation results. Therefore the males are not subjected to reverse discrimination because, as with the female results, some are above and some are below the average male regression line.

C. The Alliance

62. The Alliance, the bargaining agent representing the Complainants, supports the Commission's interpretation of s. 11 of the Act and the validity of s. 14 of the Guidelines. The Alliance stresses that s. 11 of the Act was intended to address one type of systemic discrimination, that is, the payment of different or unequal wages between groups of predominantly male and predominantly female employees performing work of equal value. The Alliance submits s. 11 of the Act is not aimed at the general wage gap between males and females but is directed at a systemic problem rooted in history and in attitudes about female work which tended to undervalue work traditionally performed by females.

63. The Alliance contends this Tribunal's Phase I decision, supra, is not to be interpreted as requiring the Commission and the Alliance to establish the cause of the wage gap arising from their respective methodologies. The Alliance argues the Tribunal's decisions must be read in the context of the issue then before the Tribunal which dealt with the meaning of gender bias and whether it was present in the job evaluation results.

64. The Alliance further submits there is no reason to prove "cause" under s. 11 of the Act because that section addresses a systemic problem which by its nature is hard to pinpoint. The Alliance believes, the inclusion by the legislature of subsection 11(4) of the Act read together with s. 16 of the Guidelines which lists reasonable factors enabling employers to justify the wage gap in certain circumstances, rebuts the Respondent's assumption that "cause" is a necessary element in systemic discrimination. The Alliance supports the Commission's position on the notion of "cause" as not being a requirement of s. 11 of the Act. Further, the Alliance submits, the Complainant is not required to establish that gender-based discrimination is the main or major cause of the discrimination in order to find a breach of s. 11 of the Act. Moreover any question about causation, according to the Alliance, should be directed at determining whether the wage gap is the result of the application of the employer's pay practices and pay systems, including the Respondent's distinctive classification systems, which existed at the time of the JUMI Study and still exist.

65. The Alliance submits in order to implement s. 11 of the Act a prima facie case will be proven once a difference in wages is demonstrated based on the four criteria identified in s. 11(2) of the Act and defined in greater detail in ss. 3 through 8 of the Guidelines.

66. The Alliance contends in order to achieve the spirit and intent of s. 11 of the Act the reference to "occupational group" under the heading "Complaints by Groups" in the Guidelines should not be given a restrictive interpretation. Based on evidence it led about the function of

work performed by the female-dominated CR occupational group and the wide range of job functions in that occupational group the Alliance submits the Respondent's whole occupational group wage adjustment methodology must assume significant common features, such as similarity of work, within each of the occupational groups in the Employer's classification system.

67. In her testimony Ms. Millar illustrated the magnitude of the variation in work within the largest female-dominated group, namely the CR occupational group. Four separate job questionnaires from the CR occupational group demonstrate the variation of work performed by employees in that group. According to Ms. Millar the CR occupational group is over 80% female-dominated. The group consists of some 50,000 employees and is relatively large when compared to the male-dominated occupational groups that participated in the JUMI Study. The four job questionnaires which were evaluated during the JUMI Study related to positions of Detachment Clerk with the RCMP, a Chief of Administrative Services, an OAS Security Analyst and an Applicant Services Unit Assistant. These four positions selected by Ms. Millar are illustrative of the two-sided functional distribution of work in the CR occupational group, i.e., the clerical functions and those functions that provide advice and guidance to the public with respect to federal laws and regulations.

68. The Alliance submits no evidence was led by the Respondent to establish a commonality within the occupational groups to support reliance upon or the use of the Respondent's classification system.

69. The Alliance further advocates a broad liberal interpretation of "occupational group" due to the fact the occupational group classification system was established arbitrarily by the Respondent through its unfettered authority in the area of classification structure. The Alliance submits the segregation of work in the Employer's classification system has contributed to the systemic discrimination addressed in the s. 11 complaints which was to be remedied by the JUMI Study. It contends arbitrarily established groupings which had contributed to the problem should not now form the basis for comparison under s. 11 of the Act and ss. 14 and 15 of the Guidelines.

70. The Alliance submits there is no validity to the Respondent's "ratcheting" argument. It contends the Tribunal is entitled to rely on the testimony of the pay equity experts and the Commission witnesses who found no basis for "ratcheting" and whose testimony is that the remedies afforded by s. 11 o f the Act are intended to provide redress for female-dominated occupations because of discrimination arising from the historic undervaluation of "women's work".

71. The Alliance advocates the composite male line as the most appropriate adjustment methodology to implement pay equity. It points out the JUMI Study selected positions to be evaluated from 9 female-dominated occupational groups and 53 male-dominated occupational groups. It submits the selection and sample reflected the parties' intention and agreement at the time that the wage adjustment methodology would be a composite line for the male comparator group. It claims the legislated standard existing in 1987 with the newly revised Guidelines was the composite line and that it was the standard adopted by the parties to the JUMI Study. The

Alliance rejects the Respondent's contention that the parties to the JUMI Study did not comply with the legislated standard.

72. The Alliance submits the "weighted quadratic" male composite line constitutes equal value which meet the requirement of s. 11 of the Act. It submits equal value is achieved through the mechanism of equating equal points between the female-dominated occupational group scores (by sub-group or level) with the same point value on the weighted quadratic male composite line. The composite line reflects the Respondent's wage/value relationship for male-dominated occupational groups. (see Section IV, B).

73. The Alliance further submits a number of policy considerations are relevant to the issue of the most appropriate wage adjustment methodology. The Alliance lists the following policy considerations in paragraph 158 of its written submissions to support its methodology:

(1) Consistency with the governing legislative scheme;

(2) Fairness to those affected;

(3) Consistency in wage adjustments as between complainant groups;

(4) Reliability;

(5) The methodology to which the parties agreed;

(6) Methodology most consistent with the views of pay equity experts;

(7) The methodology which is acceptable from a statistical perspective;

(8) The methodology which utilizes the most available data;

(9) The methodology which is capable of being explained to, and understood by, the people affected;

(10) The methodology with the least anomalies;

(11) The methodology which is simplest to implement with the least decision rules;

(12) The methodology which the parties have utilized successfully in other cases;

(13) The methodology which may be utilized by the same employer in a variety of establishments.

IV. WAGE ADJUSTMENT METHODOLOGY

74. A wage adjustment methodology is a statistical method used to implement pay equity. Each of the methods advanced by the parties used the statistical procedure of regression analysis to calculate wage regression lines. The regression line used in each method estimates the relationship between point values of the sample of jobs evaluated in the JUMI Study and hourly wages paid for each job. The Commission and the Alliance calculate regression lines for the male comparator only. The Respondent calculates regression lines for both the male comparator group and the female complainant group. Regression lines are a form of averaging and are used by the parties in the respective wage adjustment methodologies to calculate whether a difference

exists between the average wage paid to a female complainant group and a male comparator group.

75. The point values in this case are the numerical scores assigned by the JUMI Evaluation Committees to the jobs evaluated during the JUMI Study. The fifteen Job Evaluation Committees evaluated approximately 1,700 jobs from female-dominated occupational groups and 1,407 jobs from male-dominated occupational groups that were randomly selected for evaluation.
76. The system of evaluation used by the evaluation committees was the Willis Plan, a point factor plan, which has a rating scale constituted for the four job factors listed in s. 11(2) of the Act. These comprise skill, effort, responsibility and working conditions.

77. The hourly wages used in calculating the regression lines reflect the wage rates for the different jobs evaluated in the study recorded in the relevant collective agreements between the Respondent and the Alliance for the fiscal year 1987/88. The wage rates cover the period April 1, 1987 to March 31, 1988. (Exhibit HR-256).

A. The Commissions's Methodology - Level-To-Segment

78. Mr. Sunter initially considered all male-dominated occupational groups that were surveyed in the JUMI Study as one group for purposes of comparison. After receiving a complete set of the committee evaluations he began his analysis by drawing a regression line for the data set of the 1,700 female evaluations. He testified the resulting regression line showed a linear relationship between wages and value for the female scores. He noted that as the value of points increased the wages increased thus creating a linear relationship. He followed the same procedure for the male data set with the same linear result.

79. Mr. Sunter used the female and male linear regression lines as a way of exploring the data to decide which kind of regression line would be appropriate under the circumstances. He indicated the distance between the lines can be used to calculate wage adjustments. He referred to this method as the line-to-line approach. However, Mr. Sunter did not use the overall regressions as an actual basis for adjustment. He is of the view a regression line of the overall male evaluation scores is too "rough" an instrument to be useful for calculating a wage gap. (Volume 108, p. 12995). He used them only to demonstrate that a difference in rates of pay existed between female-dominated occupational groups and male-dominated occupational groups.

80. Mr. Sunter addressed the question of how much variation was produced by the overall male and female regressions by constructing a type of sensitivity analysis to determine the stability of the regression analysis. For this analysis he invented a large population using the JUMI Study results. This population was used to select repeated examples similar to the sizes of data used in the actual JUMI Study. He calculated regressions to see what variations existed and found that he had a very stable estimate of regression differences from each of the simulations. Mr. Sunter concluded from this analysis his regressions of the male and female data were demonstrative of the overall difference between the male line and female line.

81. Mr. Sunter then narrowed his scope and, using a male regression line for male values in the same range of values for the whole female-dominated occupational group, he compared the mean (average) distance for each value from the female-dominated occupational group, sub-group or level under consideration to the male regression line. He referred to this methodology as the level-to-line.

82. Mr. Sunter further narrowed the scope of his comparison by using the level-to-segment methodology. He calculated the mean (average) distance for each job evaluation score from the female-dominated occupational level or sub-group to the regression line for the male values in the same range as the female-dominated occupational level or sub-group being evaluated. All available male scores between the point parameters of the female group level or sub-group under consideration were included in drawing each male regression line. For example, the CR occupational group is comprised of seven separate levels and has no sub-groups. Mr. Sunter calculated seven separate segmented male regression lines one for each level in the CR occupational group.

83. Mr. Sunter used "weighted" regression lines throughout. The weighting accounts for the differences in the sampling probability. Not all male groups had the same probability for sampling and therefore the evaluation scores were weighted to reflect the sampling ratios.

84. Mr. Sunter's calculations using the level-to-segment methodology are found in Exhibit HR-219. This exhibit demonstrates a wage gap exists between the female complainant occupational groups and the comparator groups.

85. Mr. Sunter considered the level-to-segment methodology to be the best method for calculating a wage gap using the female level or sub-group and the male values in the same range of points in the female level. The Commission accepted Mr. Sunter's level-to-segment method as the best estimate of the wage gap and one which provides a measure of fairness to the Complainants.

86. Using this methodology the differences found for each level or sub-group to segment within a female occupational group are combined to produce a total payout (the "pot") for each female-dominated occupational group. According to Mr. Sunter this methodology requires further delineation. It does not address how the pot should be distributed within a complainant occupational group. That is to be determined by the Alliance and the Respondent. Mr. Sunter explored a variety of methods for the distribution of the pot. (Exhibit HR-219).

87. Mr. Sunter testified as to the purpose for aggregating the adjustments into a pot from each of the level-to-segment comparisons for each female complainant occupational group. That, he explained, concerns elimination of statistical errors. He says in Volume 118 at p. 14283, line 6 to p. 14285, line 11:

> Q. Under what circumstances, from a statistical point of view, might there be problems, though, with using each individual level? You have been quite careful throughout to say it's each individual added up all together that is best for the group.

A. Yes.

Q. From a statistical point of view, can you tell us what problems might be associated with using each individual level as a measure of the wage gap?

A. The standard errors associated with each of these numbers may be large enough that there is no real justification between -- even though these are the best point estimates, so to speak, for each level, nevertheless examination of the associated errors may indicate there is no statistically significant difference between one level, let us say, and its successor. So, a statistician might say, "No, you have to combine those two levels for the purposes of calculating an adjustment."

Also, when you look down the figure -- and I think you could classify this as a statistical reason -- it can happen that the standard errors themselves are subject to errors in their estimates. They are not written in stone. This is an estimated error.

...

Q. If you have problems when you are at the individual level -- and you have told us that the best estimate of the wage gap is by totting up all of the individuals -- can you tell me why the problems aren't there by the time you get to the total payout?

A. That's because of the way in which errors add. By the time you have added these things up to the level of the whole group or even of the whole subgroup, the estimates both of the adjustment itself and the estimates of the standard error that you associate with that adjustment have both become very reliable. So, that's simply a result of adding up the sample to the point at which you have a sufficiently large sample.

88. In his view, the level-to-segment calculation is the most favourable method to calculate the total pay out for the female-dominated occupational groups because the simple linear regression used for the male data is a very convenient way of summarizing the male data over short ranges. He summarizes and expresses his preference for this method in Volume 112 at p. 13490, line 5 to p. 13491, line 13:

Q. Can you summarize for us why that is your preference statistically?

A. Because the simple linear regression is a very convenient way of summarizing the general appearance of the data. But if you look at that in some fine detail, you will see that the regression does not fit particularly well in particular segments of the overall range. So it makes sense to say: Let us, for each level, take the most appropriate range for that level.

In this case, we are not depending in any way on some overall assumption that a straight line fits over a broad range. We are saying: No, no, it is good enough to summarize the data over a short range, which is what the level to segment does. And any errors of a sampling or a process error type in the calculation of course tend to get absorbed when you add up the values for different segments.

We see this in the data that is presented that at a particular level the standard error of the distance may be relatively large. But when I add them all up and

weight them, in virtually all cases that standard error becomes of negligible size. It simply disappears. So I have a high degree of confidence in the overall adjustment indicated by the level to segment.

All the other methods, line to line and level to line, involve the assumption that the regression on the male side and, in some cases, on the female side fits well over the whole range. Well, it doesn't fit well over the whole range. At least, we get much better fits if we take in a series of segments.

89. Mr. Sunter believes that the level-to-segment method provides a more viable, robust and defensible method than any method which depends on assumptions about the nature of wage progression across-the-board which is required in the method preferred by the Alliance. In this sense Mr. Sunter distinguishes very carefully between what he refers to as analytical studies in which statisticians attempt to fit models to things and descriptive studies in which statisticians are simply trying to make estimates, (Volume 120, p. 14515). It was this latter approach Mr. Sunter preferred and pursued in his analysis.

90. Although Dr. Shillington did not perform any analysis himself, he preferred a series of individual shorter regressions to a larger regression covering a wider range of values for a group. Dr. Shillington preferred the series of level-to-segment regressions because that method avoids capturing the shape of the wage-to-salary curve, which is a regression through the group as a whole. He remarks in Volume 135 at p. 16531, lines 16 - 23:

It's not the same situation with a very narrow range because you are not trying to capture the shape of the wage-to-salary curve. You are simply averaging data. I would rather see the summary of a series of segments because each of those is less sensitive to questions around the shape of the wage-to-salary curve than at the group as a whole level.

91. Mr. Sunter testified the level-to-segment methodology provides the best available estimate of the wage gap. He testified with the available data generated by the JUMI Study he was unable to do a "point-to-point" comparison between the female scores and the male scores. He described that kind of process as a "descriptive application of statistics." He testified in Volume 108 at p. 13012, line 8 to p. 13014, line 7 as follows:

THE WITNESS: Let me step back a little. What I would like to do, if I had the data and if the data were available, would be to have a set of male wages for each of these female points and corresponding to each female point I would have a set of male wages. Let's say, for this point here I would have a set of male observations at the same value, and then I would take the average of their wages.

That is not possible because we don't have such a set of points. But, if that were the case, then I would have a very simple estimate of the wage gap. All I would do would be to take for each point the distance from the female wage to the average of the corresponding male wages and then I would average those distances. That would be a simple estimate within the descriptive class of applications, and there would be no argument about it. No model would be involved --

THE CHAIRPERSON: You wouldn't need a regression line.

THE WITNESS: You wouldn't need a regression line.

CHAIRPERSON: You would just be going point to point.

THE WITNESS: Just point to point. It would be a straightforward descriptive application.

Then I would say that is clearly within the class of descriptive application of statistics, and it is what it is: it is the best available estimate of the wage gap.

Unfortunately, I don't have such data. Although I can get very close to it, I cannot get all the way to it. The best I can do is to draw this little segment regression that you see here on HR-204 and calculate average distances to that regression. That is as close as I can get to the purely descriptive application.

THE CHAIRPERSON: So what you were saying earlier, when you were saying that from a statistical perspective that is the best model, if you don't have male points for each one of those female points, the next best thing is to draw a regression line between the two segments. Is that what you are saying?

THE WITNESS: Yes. I have brought it down to as local a level as the data will allow me to do.

92. Dr. Shillington supports Mr. Sunter's approach of using regressions in the descriptive sense rather than the approach that depicts the nature of the relationship between male values and salary. Dr. Shillington expressed this opinion in Volume 135 at p. 16533, line 5 to p. 16536, line 9:

Q. When you talked earlier in your answer about a reasonable regression, what did you mean by that? Just what -- well, I won't ask you any more than that. You used the words you want to make sure you have a "reasonable regression".

A. The reason for preferring a series of individual shorter regressions, if I can say that, to a larger regression over a wider range for the group is that the wider regression analysis is going to be more sensitive -- the answer you get will be more sensitive to whether or not you do a logarithm transformation of the regression that we have talked about, put in other curvature terms. That larger regression is going to depend on how you specify your regression model. The individual shorter ones won't so much.

Q. Is it fair to say that that deals with the form of the regression?

A. Yes.

Q. In terms of the answer that you have just given, when we are looking at the composite line based on the total male universe of jobs, what you call the male composite line, what impact, if any, does the statement which you have just made have on the use of a male composite line?

A. It's the same discussion, but it's more on a broader range. Would I prefer a series of regressions over a short range and summarize that information to a regression line through all the male values? I would prefer the shorter regressions, again subject to sample size. The reason is that if you do a single regression through all the lines ---

Q. Through all the lines?

A. Excuse me. If you do a single regression through all the male questionnaire points, then you better be very, very certain that you have that line specified correctly.

In this situation [level-to-segment] there is no true line. We are summarizing data again. Nobody is suggesting that there is linear or a logarithmic or real relationship between Willis scores and salaries that is from nature. It's not like doing a regression of the relationship between the height of a building that you drop a ball from and the speed of the ball when it hits the ground.

There, if you are doing a series of experiments, on one axis you have the height of the building and on the other axis you have the speed of the ball when it hits the ground. You do a regression through those points. Your physicist will tell you that it's quadratic, that there's a squared term in the equation, and that's not ---

Q. So, in the real world there is a proper form for an equation for dropping a ball out of the window of a building.

A. Because that's the way the physics works, within limits. But in this situation nobody is coming to you and saying that because of the classification system, because of the physics, there is a linear relationship or a log relationship. We are just trying to find a curve that fits the data. If you are going to use one overall curve, then you better be quite certain you got it right.

In the current circumstance, with the number of questionnaires you have and the sample size you have, you don't need to do that composite analysis because you have enough observations, enough questionnaires in the individual ranges that you can say at the value two hundred (200), let's say, or two hundred (200) to two fifty (250), if we want to know what males in that range are paid, we can simply use the males in that range and not have to deal with formulating a regression equation that fits the overall shape of all the data correctly. [emphasis added]

93. In 1990 the Respondent adjusted the job evaluation results (scores) for gender bias which it claimed entered into the job evaluation process. Mr. Sunter testified that the effect of the adjustments by the Respondent to the JUMI Study evaluation results, presented by the Respondent in its methodology paper, (Exhibit HR-185), shifted the female regression line and the male regression line. The shift narrowed the wage gap and resulted in a smaller dollar payout in the equalization payments made by the Respondent following the breakdown of the JUMI Study. The Respondent also removed or trimmed the data by removing the top 10% of the scores and the bottom 10% of the scores as part of its methodology in 1990.

94. Mr. Sunter criticized the Respondent's methodology of 1990 for removing all evaluation scores below a certain level and above a certain level. He testified in Volume 110 at p. 13254, line 15 to p. 13255, line 21:

Q. How does this trimming compare to the removal of outliers which you did in your analyses that you testified to earlier?

A. What I have called outliers are observations which are so extreme, so far away from the mean for the particular variable that I am looking at -- let us say point scores or perhaps relation of wage to point score. They are so far away from the mean from the rest of the observations that I have reason to suspect that they do not belong to the same population or were created by the same process. In other words, there has been a blunder of some kind. That is a possible explanation. I have some reason to throw them away on those grounds or to discard them for the purpose of the present analysis. Typically, the number is very small because I am going to be throwing things away, let us say, at the first and the 99th percentile.

I am only going to do it after I have looked at the data. I may not throw away anything.

That is quite different from a trimming procedure or a censoring procedure, as it is sometimes called, in which I decide beforehand that I am going to only look at observations between the 10th and the 90th percentile.

The first has a justification in statistical procedure. The second, if it has any justification at all, would have to be a justification with respect to the procedure that is going to follow that.

95. Mr. Sunter rejected the composite line as a method of comparison. He testified a statistical problem of "local inadequacies" arises with a composite line. According to Mr. Sunter "local inadequacies" arise when the data departs quite significantly from the overall regression and is measured by the distance of the male data from the regression line. If this occurs the male data is being misrepresented by the regression line relative to the actual location of the data. Mr. Sunter did not examine the data in detail to assess the question of local inadequacies instead he dismissed the composite line as a matter of principle.

96. According to Dr. Shillington the benefit of using segmented lines is that this methodology avoids local inadequacies or situations where the regression line is being forced through data that really does not fit the regression line very well. The level-to-segment analysis can account for small variations in the relationship between Willis points and wages that may not be captured with a composite line.

97. According to Mr. Sunter he utilized regression analysis as a computational device to summarize the data for the purpose of calculating an average distance from the female points to the male points in the level-to-segment methodology. In that context he testified statistical factors such as "goodness of fit" (a regression line is a good fit to a set of points if the average distance of those points from the line is very small), "distribution of points" (the distribution of values between the male and female groups), and "local inadequacies" are insignificant. Mr. Sunter testified if regression analysis is used in the context of model building to describe a process in the real world which is intended as a basis for action, as in for example the composite line, then the validity of the regression line becomes significant and "goodness of fit" is quite meaningful.

98. There is evidence of different distribution of values between the female groups and the male groups against which they are compared. Mr. Sunter testified the difference in distribution of the

values in the ranges under consideration from the distribution of values in the female-dominated occupational group did not pose a problem. He testified as follows in Volume 126 at p. 15351, line 20 to p. 15354, line 3:

> THE WITNESS: There is no difference in principle between the comparison of a line-to-line between the two regressions over the whole range for an occupation, and comparison of regressions over the range for a particular level within the occupation. In principle it's the same problem and in both cases one would prefer that the two data sets have a similar distribution and that distribution be squarely well over the range of the observations.
>
> Having said that, we simply have to work with the data we have and we may not have that kind of equal distribution or well-distributed data in either case. That does not in itself invalidate the regression. If they are particularly different, the distributions, you may want to have a look at that problem in case it affects the regression. And indeed you may introduce some weighting to make sure the distributions are officially the same.
>
> The difference between the line-to-line and the level-to-segment in this context is not to do with that particular problem. It is when you move down to the level-to-segment approach you are typically taking much shorter ranges for the regressions and so the distribution, or the differences in the distribution across that range become that much less important. That's all.
>
> That's not the main reason, of course, that I went to level-to-segment, that was mainly for the purposes of dealing with what I have referred to as local inadequacies in the overall regression. But since this point has been raised that is one of the considerations for going down to the level-to-segment, not the main one.
>
> THE CHAIRPERSON: I would like to follow-up, Ms. Morgan.
>
> Why do the differences in distribution become less important than the level-to-segment?
>
> THE WITNESS: Because you are working over a much smaller range and because, you will recall, that the actual level-to-segment calculation for a particular level -- I have said always that you should be fairly cautious about how you interpret that particular number. It is only when you add the numbers up over a whole set of levels that you can be confident that the errors at any particular level are beginning to cancel out.
>
> So if you do it over a series of short ranges rather than over one long range, if I am making myself clear here, then you are dealing both with the local inadequacy problem to some extent and you are also dealing with this problem of differences in distribution of the two data sets, those two things are occurring simultaneously.

99. Mr. Sunter's methodology produced approximately fifty male regressions for the Alliance's complainant groups. A question of sample inadequacy arose in a few cases. In some instances Mr. Sunter found the number of "observations", (job evaluation results or scores), in the female level restricted the breadth of the range thereby limiting a sufficient number of male observations (data) for inclusion in the comparator segment. He addressed this problem by expanding the

female range to include more male observations to ensure the regression had statistical validity. He referred to this expansion of the female range as a "decision rule". This problem did not arise in the calculations for the Alliance's groups. It concerned the complainant groups represented by the Professional Institute of the Public Service of Canada. This Tribunal is no longer seized of the complaints by the groups represented by the Institute.

100. Mr. Sunter found a composite line approach to calculate a wage gap unsatisfactory. In his view the local regressions which correspond to a segment of the female values were more accurate and therefore more reliable, whereas the composite line is more precise but arguably less accurate. He did however use a composite line in his initial analysis for purposes of the overall regression to demonstrate the difference between male and female salaries, (the line-to-line approach).

101. Mr. Sunter concluded the level-to-segment methodology as the most accurate calculation of the wage gap. He testified in Volume 112 at p. 13492, line 21 to p. 13499, line 5 as follows:

> THE CHAIRPERSON: Before you do that, Ms. Morgan, I just have one more question.
>
> Mr. Sunter, in your evidence when you were describing method 3, the level to segment, you were using words like "precise"and "accurate", and one may be more accurate but not precise or maybe precise but not accurate.
>
> THE WITNESS: Yes.
>
> THE CHAIRPERSON: We have some definitions in your glossary that briefly describe the difference between what is precise and what is accurate. Could you review that? What is the difference between something that could be precise but not accurate, or accurate but not precise, and how that fits into these different methodologies and the interpretation that was given in your glossary.
>
> If you need time to think about that -- I don't mind if we go on with what Ms. Morgan wants to do. But that area is a little hazy with me as to the meaning of those terms.
>
> THE WITNESS: I think I can do it off the cuff.
>
> Precision is a term generally used to denote replicability. If I measured the length of this pen, for example, ten times with some instrument and those ten measurements all come out to be very close to each other, I would say that the set of measurements is very precise.
>
> However, it is not necessarily accurate. If the instrument I used to measure it is biased in some way, then I would say that the result I get is inaccurate. So it can be both inaccurate and precise, as those terms are used in statistics.
>
> It could be accurate but imprecise. I could say: Here is an instrument for measuring the length of pens, a pen measuring instrument, which is very rough. But on the average it gives exactly the right value. You may have to measure the length of the pen 100 times to get the right value, or close enough to the right value, but that measurement will be very accurate. But the measurement instrument itself and the series of measurements are imprecise.

So, if an instrument or a procedure on the average gives the right result, you say that it is accurate. If it gives you the right result with very few measurements, you say that it is precise because every individual measurement comes close to the average.

In talking about those regressions, I seem to recall saying that as we go from line to line to level to segment, we are trading off precision for accuracy.

MEMBER FETTERLY: Could you say that again?

THE WITNESS: We are trading off precision for accuracy for a particular level. What I meant to say by that was that if you simply take the line-to-line distance and use that for calculating the adjustment for a particular level within an occupational group, you are using an instrument which may be very precise, but it is rather inaccurate because the regressions themselves don't fit very well. But the individual distances calculated may come very close together. On the average, they happen to give the wrong answer, but they are very precise.

When we go to level to segment, we have traded off some precision because we are not moving down to very small sample sizes, but we are much more accurate.

In adding up those level-to-segment distances across the thing, I recover, so to speak, my precision by increasing the number of observations so that I have the best compromise of accuracy and precision by doing it that way for the total adjustment.

MEMBER FETTERLY: Thank you.

THE CHAIRPERSON: What is the definition of "accurate"and what's the definition of "precision"?

THE WITNESS: I am not sure I can give you a precise definition. An instrument is precise if its standard error is small. I was trying to give you an English language description of what that term means, but once you asked me for a definition...An instrument is accurate if the expected of the value of the result agrees with the true value.

THE CHAIRPERSON: What you have just talked about, this precision and accuracy, if you look at the line-to-line regression that has been done using the Treasury Board methodology, does this apply to that type of methodology? Are you saying that it's very precise, but it's not very accurate?

THE WITNESS: Yes, line-to-line on that scale of trade-off, if you like, on that spectrum from high accuracy to high precision. Obviously you would like to have both, but very often there is a trade-off. On that trade-off the inaccurate end of the spectrum.

This is essentially -- you see, the argument for using it is revolved in Treasury Board's discussion around questions of sample size and sample design. In effect, what they are saying is: No, you have to do it that way because the sample design and the sample size only give you sufficient precision when you do it at that level, I may [be] placing words in their mouth. They didn't actually say that, but that's the gist of the argument.

My reaction to that is, yes, it's very precise, but it's also inaccurate. A well known statistician once said that it's better to have rough answers to the right questions then very precise answers to the wrong ones and I don't have much trouble with that statement.

THE CHAIRPERSON: Just on that, I don't want to explore it too much, but what is a statistician striving for here when you are applying methodologies? Does one have more significance over the other, precision over accuracy or accuracy over precision? Is there a standard within your profession that says this is something that precision is the key or accuracy is the key, what is important?

THE WITNESS: No, there is not standard. We do invent measures that combine those things. Something called the mean squared error combines, if you like, accuracy and precision. So, the object in sampling exercises, for example, is to minimize the sum. It's not a simple sum, but the kind of geometric sum of bias and sampling variance. This is called the mean squared error.

So, in that sense, there is a standard. We are trying to get the best of both worlds. But very often there is a fairly clear trade-off that you have to make. You have to go for one or the other.

THE CHAIRPERSON: In the exercise here that was undergone, in trying to determine if there was a wage gap, et cetera, et cetera, what, in your opinion, is what you should be striving for?

THE WITNESS: I think it's fairly clear -- it's clear at least in my mind -- that here what you should be going for is accuracy. After all, the differences in -- if you simply look at the magnitude of the differences that we are talking about here between male rates of pay and female rates of pay, precision in that calculation down to the last cent is not of great importance. On the average, we ought to be getting the right results. So, accuracy is the point and not precision, in my view, here.

B. The Alliance's Methodology - Level-to-Composite

102. The wage adjustment methodology proposed by the Alliance is to adjust female wages using values calculated by occupational group and level and where applicable, sub-group and level for the complainant groups to a male composite line. The male composite line in the Alliance's methodology is a regression line using all jobs sampled from the male-dominated groups in the JUMI Study. This methodology is referred to as the level-to-composite methodology.

103. Dr. Eugene Swimmer, an expert in labour economics and statistics, did the statistical analysis on behalf of the Alliance that produced the composite line. He testified as to the validity of the composite male line. Based on his analysis, Dr. Swimmer was of the opinion that a quadratic equation best reflected the male data generated in the JUMI Study. In contrast to Mr. Sunter's use of regression lines Dr. Swimmer utilizes the regression line as a model to predict the wages for all employees in male-dominated occupational groups in the Federal Public Service.

104. Using a scattergram (a graph showing the different evaluation point-scores) Dr. Swimmer observed the male data traced an upward sloping curve which tended to flatten out at high values of the job evaluation points. Because of this flattening out at the higher end values Dr. Swimmer preferred a quadratic equation to a linear equation to predict the male wages. He testified the more complex quadratic equation produces a curvilinear male regression line.

105. Dr. Swimmer noted the sampling procedure employed in the study was not equally representative of all occupational groups. In some cases the male data tended to be over represented in some occupational groups and under represented in others. Dr. Swimmer felt it appropriate to adjust for this difference. Therefore he weighted individual observations to reflect their sampling probability. In this process he allowed for each of the male evaluation points to contribute equally to the formula for drawing the regression line.

106. According to Dr. Swimmer, since the regression line produced is used to predict the relationship between wages and points for a population of approximately 100,000 employees working in the Federal Public Service, the "goodness of fit" of the line becomes a statistical issue. According to Dr. Swimmer an index number has been developed by statisticians, referred to as r2, which gives an indication of the goodness of fit of the line. In statistical terms the r2 is the standard error of the regression line as a whole. In every regression line the r2 statistic will be between 0 and 1. The closer the r2 is to 1 the more reliable the line is as a predictor of wages. In graphic terms a regression line with much of the data on the line with a little above and a little below is a better fit than if the data is scattered all over.

107. Dr. Swimmer testified the r2 for the simple linear regression for the male data from the Study was 0.72. When the regression is weighted it produces an r2 of 0.71. Dr. Swimmer compared the r2 between the quadratic equation for weighted and unweighted forms with the respective linear equations and this comparison suggested to him that the quadratic model may be superior to the linear model on statistical grounds.

108. Dr. Swimmer then formally tested whether the quadratic (curved) model was significantly better than the linear model using a statistical test called the Wald F Test. Based on these results, Dr. Swimmer concluded the quadratic equation was a superior way of summarizing the data of the approximately 1,408 males in the sample.

109. Dr. Swimmer testified there are two attributes about regression estimates that concern statisticians; one is "unbiasedness" and the other is "efficiency". Dr. Swimmer described an "unbiased" estimate as one which, if the process is replicated many times, results in the average of the estimates being virtually identical to the slope of the regression line for the true population. He testified regression estimates are said to be "efficient" when there is no other process which is unbiased and where they will generate values close to the entire population values as is the case with the ordinary least square method (the regression line).

110. Dr. Swimmer assured the Tribunal both of these attributes were present in the Alliance's composite line methodology. This was accomplished by assessing yet another statistical consideration called the "error term". He identified the "error term" as the difference between the actual value of wages and the predicted value of wages from the regression equation at a

given number of job evaluation points. Dr. Swimmer employed algebraic techniques to correct for a problem he referred to as "heteroscedasticity" which results in increasingly greater errors when predicting wages which fall at higher job point values. As a result, he produced the following weighted quadratic equation for the 1987 data: Pay 87 = 4.029 + .060 Point - .000014 Point2. (Exhibit PSAC-164).

111. The results of Dr. Swimmer's analysis are found on p. 22 of his report, (Exhibit PSAC-164), and are as follows:

> For the reasons addressed earlier, based on my analysis of the data and the application of accepted statistical tests, I believe that:
>
> a. a single composite regression provides an excellent fit for these data
>
> b. the weighted quadratic equations, corrected for heteroscedasticity generate unbiased and efficient estimates of the population characteristics and are therefore the best specification of the overall model for the relationship between hourly wage rates and job evaluation points for employees in male dominated occupational groups
>
> c. the predicted male hourly wage rates from these weighted and 'corrected' quadratic regressions would serve well as the bench mark for adjusting hourly wages of female dominated groups.

112. Dr. Swimmer provided no opinions on either the level-to-segment methodology or on the whole group methodology, the latter being the Respondent's methodology. Mr. Ranger of the Alliance provided calculations of the wage gap using the level-to-composite methodology in Exhibit PSAC-187. The actual method of calculation is similar to Mr. Sunter's level-to-segment methodology except the Alliance uses the weighted quadratic composite line in calculating the differences between the female and male groups rather than individual segmented lines. Using the weighted quadratic equation the Alliance has demonstrated a wage gap exists between the female complainant occupational groups and the comparator groups.

113. The Alliance submits the parties had agreed in the JUMI Study to utilize the composite line to calculate the size of the wage gap during the phase to follow the job evaluation phase of the JUMI Study. The essence of the Alliance's submission on this point is found in paragraphs 173 and 174 of its written submission. They read as follows:

> 173. In the respectful submission of the Alliance, the evidence, both viva voce and documentary, confirms, in clear terms, the fact of the parties' agreement that the composite male line would be utilized as the male comparator to calculate the size of the wage gap following the job evaluation phase of the Study. While the Alliance recognizes that no final agreement was reached at the outset of the Study or in the course of it respecting the manner in which female complainant groups would be utilized, it seems clear that the only issue on this aspect was whether the female groups would be compared by entire female group or by level within each female group or sub-group as the case may be.
>
> 174. In the submission of the Alliance, the agreement on the approach to male comparators has been confirmed by Ms Manseau, Ms Jaekl, Ms Millar, Mr.

> Sadler, Mr. Ranger, Ms Brookfield and, notably, Norman Willis. This agreement is also confirmed in the Gower Exhibit respecting the sample size given that the manner in which males would be compared was fundamental to determining the size of the male sample. No party, including the Commission, subsequently objected to the use of the male composite line during the Study. [emphasis added]

114. The appropriateness of the sample design used in the JUMI Study is not an issue in these proceedings. Initially the Respondent wanted a smaller sample than the Alliance to conduct job evaluations. The sample size was finally agreed upon by the parties and approved by Statistics Canada. The original sample was reduced with the approval of Statistics Canada. The female complainant group sample was larger than the male comparator group sample. The female complainant group sample was represented by group, sub-group and level for the female-dominated occupational groups and by group for the male-dominated comparator occupational groups.

115. The Alliance refers to a paper written by Allen R. Gower, Social Survey Methods Division, Statistics Canada, dated February 12, 1987, entitled "Observations Regarding Sample Size 'Equal Pay for Work of Equal Value.'" In that paper Mr. Gower described the method of sample selection in the JUMI Study as an equal probability sample (Exhibit PIPSC-12). Mr. Gower provided comments about proposed sample sizes for the JUMI Study and methods of adjusting salaries. We note Mr. Gower's comments were based on an assumption that the salaries of employees of female-dominated group would be adjusted using the female level to the composite line. He addresses two preliminary sample size proposals, one comprising 5,200 positions suggested by Mr. Willis and the other comprising 2,550 positions proposed by Mr. Jean Bourdeau of the Treasury Board. According to Mr. Gower's report, the reliability of a male composite line using different samples depends on the size of the sample. He writes on p. 5 of his report:

> The sample sizes for female-dominated groups are 2,422 and 1,950 in the Willis proposal and the Bourdeau memorandum respectively. However, the respective sample sizes for the male-dominated groups are 2,436 and 600. For male-dominated groups the difference lies in the assumptions made about the adjustment method. A sample size of 2,436 would very likely provide good reliability for a male composite line (and for separate male lines for many of the groups). A sample size of 600 would provide less reliable data (assuming that the same sample selection method). Although the data would be sufficiently reliable (± $500) for a male composite line (based on previous data relating to CHRC complaints), there would not be sufficient reliability for separate male lines for most male-dominated groups.

116. The excerpts from JUMI Committee meetings used by the Alliance in support of its contention that the parties agreed to utilize a male composite line as the male comparator to adjust wages are reproduced as follows:

(i) October 9, 1986:

> Statistical Methodology

Since the staff side had not had an opportunity to discuss this matter thoroughly, a committee agreement was not possible. The management side indicated its preference that the wage of each female dominated group be adjusted on a percentage basis to the composite male line. Christine Manseau agreed to make the staff side position known at the next meeting, October 29.

(ii) October 29, 1986

Statistical Methodology

The staff side indicated its preference for the male composite line to female level approach at a $300 reliability with 3,100 to 5,300 positions. The staff side also indicated that the input of Willis would be useful at this point.

(iii) January 30, 1987

The Male Composite Line

The salary range for the male composite line should be from about $15,000 to $75,000. Given that we are only interested in a good salary-point relationship for the male composite line, a sample of 600 positions would be [reliable]. We could add the constraint that there should be at least 3 to 5 positions sampled in each male-dominated occupational groups.

(iv) March 2-6, 1987

Statistical or Adjustment Methodology

Ted Ulch, CHRC representative, stated that 1986 Equal Wages Guidelines required the use of level ratings.

The Committee agreed to defer decision on the adjustment methodology until the evaluation of sampled positions had been completed.

(v) October 14, 1988

Letter from the Canadian Human Rights Commission

Mr. Willis stated that Mr. Ulch's recommendation could be carried out on male-dominated groups given that the male wage line was to be treated as a universe; this might not be possible with female-dominated positions, for which the occupational group and level would be used to determine any wage curve. JUMI had agreed to go to a male composite line but no decision had been made on female-dominated groups.

117. The Alliance also refers to the testimony of Mr. Willis concerning the sample design and size to support its contention of an agreement by the JUMI participants to use the male composite line. Mr. Willis testified it was his understanding that the sample of positions selected for evaluations was made on the basis of male-dominated positions being treated as "one universe" and the female-dominated positions being separated by group and level for wage adjustment.

C. The Respondent's Methodology

(i). The Whole Group Methodology

118. The Respondent's methodology is based on the use of whole occupational groups as a basis for comparison. The whole occupational groups are those identified by the Employer's classification system and used in the JUMI Study.

119. The Respondent's methodology consists of two separate approaches. The preferred methodology is to adjust the pay of a female-dominated occupational group where a wage gap exists between that female-dominated occupational group and a single, lowest-paid, whole male-dominated occupational group performing work of equal value to the value of work of the female-dominated occupational group. Since s. 14 of the Guidelines provides for a comparator group composed of all male-dominated occupational groups, the Respondent's second approach is to compare the wages of the complainant group to the "deemed" group. The deemed group is composed of all the male-dominated occupational groups identified to be of equal value to the complainant group.

120. The choice of male comparator, either the single male-dominated occupational group or the deemed group depends on the validity of s. 14 of the Guidelines. According to Respondent counsel, if s. 14 of the Guidelines is found to be invalid, the deemed group is eliminated and the Tribunal is driven to the lowest paid male-dominated occupational group as the comparator group. Respondent counsel provided the Tribunal with the option, absent any conflict between s. 11 of the Act and s. 14 of the Guidelines, that it could accept the deemed group approach instead. The deemed group approach, which the Respondent says must be adhered to if s. 14 is applied, permits only the whole group methodology to the exclusion of either the level-to-segment or the level-to-composite line approach.

121. The Respondent bases its methodology on the concept of "central tendency". Dr. Shillington described the term "central tendency"in Volume 140 at p. 17281, lines 1-10 as follows:

> "Central tendency"is a term used in statistics to encapsulate various ways of trying to capture the middle of the data. It would include the average or the mean as one way of measuring the middle. The median is another. You could come up with other ways as well. All of those together are trying to encapsulate something about typical, average, middle. So, central tendency refers to all of those measurements.

The Respondent's methodology addresses whether the female-dominated occupational group and the lowest paid male-dominated occupational group have the same "central tendency". The Respondent contends the central tendencies of two groups can be compared by using the "mean" or the "median" to see if they are equal.

122. Dr. Shillington testified the average of a set of data is the arithmetic mean, the sum of the numbers divided by sample size. The limitation of the mean is that it can be influenced markedly by a few extreme values. On the other hand, he described the median as the middle number when the values in a set of data are arranged in ascending or descending order. It is synonymous with the 50th percentile. A significant advantage of the median is that it is not

strongly influenced by individual extreme values. According to Dr. Shillington the median is affected by the distribution of the values and the order of the values (lowest to highest).

123. According to Dr. Shillington the term central tendency can be used to present single or summary conclusions about the value of work of a sample for members of a group.

124. The Respondent applied its whole occupational group after the demise of the JUMI Study. In early 1990 the Respondent used the JUMI Study results to make unilateral pay adjustments to three of the female-dominated occupational groups that were surveyed in the JUMI Study. Documentary evidence of these adjustments is contained in a methodology paper received by the Commission from the Respondent in March of 1990, (Exhibit HR-185). Mr. Sunter did an analysis of the Respondent's methodology as part of his work for the Commission. Both Mr. Sunter and Dr. Shillington were critical of the Respondent's 1990 methodology. The Respondent led no evidence to explain the basis of the methodology it used in 1990. Some aspects of the methodology found in Exhibit HR-185 were retained by the Respondent in the methodology it advocated before the Tribunal in argument.

125. In 1990 the Respondent used a statistical test as part of its methodology for adjusting wages. The test, applied in 1990 and based on whole group comparisons, used a standard statistical test referred to as the Wilcoxon Rank Sum Test. This test was used as a significance test to determine the difference between two groups, the complainant group and the comparator group. More specifically the test compared a set of numbers from each group to determine if the median value, i.e., the 50th percentile of the two groups, was different. If the medians of the complainant female group and the composite male group were significantly different the Respondent rejected the male comparator group. The appropriateness of the Wilcoxon Rank Sum Test for wage adjustment was criticized by Dr. Shillington and he dismissed the notion of using any or all significance tests for making comparisons. Dr. Shillington's concern with the Wilcoxon Rank Sum Test is that as the sample size becomes larger the test will demonstrate that all these groups are different. Dr. Shillington testified the Wilcoxon Rank Sum test asked the wrong question which is directed at the exact identification of values.

126. The Respondent now argues the concept of "central-tendency" should be applied in assessing "equality", rather than the statistical test it used in 1990 to determine the size of the wage gap.

127. Dr. Shillington also disagreed with the Respondent's approach requiring whole male-dominated occupational group comparators. He testified in the strongest terms that if he had to use the "mean" or "median" for making group comparisons, the approach should be one that would retain data rather than exclude it. Dr. Shillington stated the data must inform the analysis in a group complaint. We refer to his testimony in Volume 140 at p. 17306, line 4 to p. 17307, line 20:

> Q. Let me understand a bit better. Is your contention that one should not use a test of central tendencies to determine comparators? Is that your basic contention?

A. No. I think I said it as clear as I could in response to one question from the Chair about setting criteria.

I would approach the question in the following fashion. If you must use males via the group process, a group is in or out, you would say that we want to include the male groups that have enough overlap in value whose values are in some collective way similar enough to the females that we would be comfortable saying yes, they are "comparable", that they inform the analysis.

It is not whether or not the medians or the means are identical.

Q. Dr. Shillington, I suggest that when you just made that statement you are entering into the field of deciding what comparability means. You have told us before that you are going to leave that to the lawyers to argue.

A. No, no, no. The interpretation of the statute and whether or not that means that the groups have to be identical the lawyers are -- I wish you well.

The issue about whether or not in choosing comparators -- in identifying the male groups who are comparable, the issue about whether or not that is a significance test or a technique which includes groups not using significance tests but based on some kind of rule of thumb, the average for one group must be within the two standard deviations, or the median for one group should be within the quartile range, or -- and I said I don't know what the right answer is. But I am sure that if you use a significance test, you will get into the logical inconsistency of developing a technique which, if you had a large enough sample size, there would be no comparators. [emphasis added]

128. The Respondent's methodology now proposed arose from an "off the cuff" suggestion made by Dr. Shillington in response to Commission counsel questioning his examination in-chief. Commission counsel asked for Dr. Shillington's opinion about devising a methodology that requires only whole male dominated groups as comparators for female-dominated groups. Dr. Shillington's response is found in Volume 132 at p. 16176, line 18 to p. 16185, line 3:

What if the Tribunal in these proceedings determines that the legislation, the Canadian Human Rights Act, requires that the analysis of discrimination in pay requires that only whole male-dominated groups could be used as comparators for female complainant groups? Have you given any thought to this question and what sort of things you would look at for devising a possible methodology?

A. Yes, I have given some thought to approaches you might explore.

Stepping back again to the fundamental research question, you want to identify male groups which would be included in the analysis for comparison purposes. So they would be groups where there is a goodly number of observations that have job values comparable to the female job values.

Again, without having pursued this at all with data or tried to operationalize it, you could try various techniques that at least half or at least three-quarters of the male values would have to be within the female range. You could ask that the median of the male values be between the twenty-fifth and seventy-fifth percentile of the female range. There are various ways of creating an operational

definition that would try to ensure that the male comparator groups had observations that are roughly comparable in job value to the job values of the female group.

Q. Before you go into any further suggestions or we get clarification of those few suggestions you threw out, what about the use of the Wilcoxon Rank-Sum Test as a significance test to determine comparable male-dominated groups?

A. Using it as a significance test, as I have said, I think is addressing the wrong question. The question is not whether or not the groups have the same median. You don't sit there and assess the evidence that these groups have different medians. If you have enough data, you will have evidence that they have different medians.

The question is, are they similar enough that they can be used for comparison purposes, not whether or not we have enough evidence that they are different.

So, no, I would not advise using a significance test in this at all, actually.

Q. You have given, I heard, two possible suggestions. To what degree have you explored these ideas?

A. These are strictly off-the-cuff or off-the-top-of-my-head ideas about the way you might approach it. I don't want anybody to think that I would defend those to any strong degree. You would have to get in and look at the data and get some sense of what the impact of those decision rules might be before you would feel confident that you had one that was operationally doing what you wanted it to do, which is identify male groups which are, in some sense, comparable.

Q. On what basis can you wholly discard the use of the Wilcoxon Rank-Sum Test as an alternative methodology for identifying comparable male-dominated whole groups, whereas you are not completely rejecting these other methodologies?

A. I think it is a matter of identifying whether or not the test that you use or propose addresses the question, the appropriate question.

I think the question, assuming that we are going to take a group approach, is: Does this group have enough male questionnaires with job values in the range of the female group that we want to include it?

That is the non-statistical question, I think. I think the types of decision rules I suggested as possibilities are ones that could be used to answer that question: Does the male group have enough values in common with the female groups to include it?

The Wilcoxon isn't answering that question. The Wilcoxon significance test is: Do we have evidence that the medians are different, non identical?

With very large sample sizes, it would not be difficult to create a set of male questionnaires which are very, very close to the set of female questionnaires in terms of job values but which would have significantly different medians. It would not be difficult at all.

The reason I am confident in saying I would not use the Wilcoxon is because I am confident it is answering an inappropriate question.

THE CHAIRPERSON: Could I ask a question, Ms. Morgan?

MS. MORGAN: Please do.

THE CHAIRPERSON: If you are analysing data and you are trying to come up with criteria to say that these are similar enough or they have values that are very close, that they are similar or comparable, what kind of criteria when you are analysing data statistically do you look at to say yes, they meet what is required?

THE WITNESS: I don't think this is a deep statistical question. I think that this is a question that everybody here could address.

If you look at the CR group, as an example, and the various male occupational groups, you could look at the males in terms of the median of the male values for each group, their maximum, minimums, the twenty-fifth or seventy-fifth percentile. What you want to do is identify the male groups which, if you included them, would meet whatever your criteria of comparability is.

That might sound like I am ducking the question.

THE CHAIRPERSON: That is the question I asked you, what would your criteria be, and you are saying it should meet the criteria. I am saying can you define the criteria.

THE WITNESS: Again, I don't think there is a pre-defined statistical technique. I have problems with using significance level because, as your sample sizes get large, you are going to definitely have no comparators. I think that should tell you that there is a philosophical flaw in the reasoning.

I would start and say -- you might start and say: What would happen if we were to include the male groups where the median is within ten per cent of the female's median? You could just see whether or not that seemed to work reasonably.

I don't know what the criteria ---

THE CHAIRPERSON: Is your objective in this exercise to get a reasonable number of male comparators? Is that one of the -- maybe if you approach it from what is your objective here, if you are going to answer your question. What are you trying to achieve?

THE WITNESS: I have a small amount of difficulty answering because I would start with -- I wouldn't use the groups as a conduit at all; I would just say the males, as long as your job value is in the range.

But if you had to go through a group approach, you certainly -- if you came up with the technique that you thought met certain predefined criteria but then had no sample, I think you probably haven't achieved anything very useful.

So having a goodly number of male observations that pass the criteria would have to be practically one of your criteria. I say "practically" because you may start off by saying you want observations which meet some criteria of

comparability and then you may design a technique that gives you that, and then you have no sample size because when you utilize that criteria ---

THE CHAIRPERSON: So one of your criteria has to be, would it not, that you have to have a sample size? Wouldn't that be one of your criteria?

THE WITNESS: I am trying to differentiate between a criteria that speaks to comparability, which is -- maybe I will call it more of a philosophical or theoretical criteria, and then a criteria of practicality, which is that if you use a technique which you are totally satisfied with theoretically or philosophically but leads you to inadequate sample sizes, you are probably going to end up going back and revisiting the question and saying maybe we have to loosen up.

If you started off and said "We want to have the male group to have the same distribution"-- which you can characterize the Wilcoxon approach. You could say philosophically, if we have the same distribution, that you are unassailable, in a sense, but you get no sample size and it is not a very practical recommendation.

But I don't even think the same distribution is necessary if you go back and say, "We need, for the comparison, males who come from groups where there is at least enough overlap in the job values that there is a reasonable comparison, that there are enough males at 250 and 260 so that we are not extrapolating or interpolating, we are making a reasonable assessment."

If that is our criteria, then you could assign inclusion criteria that would follow that type of rule and hopefully give you also a practical application because you wouldn't have small sample sizes.

So there is a bit, in my mind, a little bit of a two-stage analysis here: Design a criteria for inclusion that meets some kind of philosophical definition of what you mean by comparability, and make sure that you haven't defined that so narrowly that you end up with no observations. [emphasis added]

129. The Respondent contends Dr. Shillington's philosophical definition of comparability, referred to above, should be rephrased to mean the legal requirements of the legislation. According to Respondent counsel there are two legal requirements for a methodology to be consistent with s. 11 of the Act. Firstly, the requirement for comparisons by occupational groups and secondly, the comparison of wages of only occupational groups performing work of equal value. Respondent counsel argues the legislation affords the Tribunal some discretion in applying the second requirement by striking a balance and thus avoiding an overly technical or restrictive interpretation of s. 11 of the Act.

130. The Respondent's preferred choice in selecting a comparator group is further explained by its written submissions in paragraph 126, referred to as banding:

126. Another way to assess the proximity of the means or medians of two groups is to prescribe a band of values around the mean or median of the complainant group, and to identify all male groups having a mean or median value within the value band of the complainant group. The band might be based on a specified number of evaluation points, a specified percentage of the value of the complainant group, or a specified number of percentiles. This method does not rely on any statistical test.

131. The Respondent summarizes the benefits of the banding method when choosing comparators in paragraphs 367 and 368 of its written submissions as follows:

> 367. The Whole Group Comparator methodology, using the banding method to identify the lowest paid male occupational group as the comparator:
>
> (a) complies with section 11 of the Act in that:
>
> (i) it is designed to identify a group of male employees performing work of equal value; and
>
> (ii) it provides a means to distinguish between the portion of the wage gap caused by discrimination based on sex and the portion of the wage gap caused by other factors;
>
> (b) complies with sections 12, 13 and 15 of the Guidelines because it provides for comparison between a complainant which is an "occupational group" and a comparator which is an "occupational group";
>
> (c) is easy to understand;
>
> (d) is neither technical nor restrictive;
>
> (e) does not rely on statistical significance tests;
>
> (f) is not seriously affected by measurement error; and
>
> (g) is versatile in terms of application to groups of different sample size.
>
> 368. For these reasons, the Respondent submits that the Tribunal ought to select the whole group comparator methodology using the banding method to identify the lowest paid male occupational group as the comparator for estimating the pay equity wage gap in this case.

132. We note there is only a slight reference in the evidence for the banding method technique in pay equity adjustments. Dr. Weiner made brief mention during her testimony to the concept of banding in compensation practices. According to Dr. Weiner bands of points are established in some compensation systems to respond to situations where jobs have slightly different point values but are considered as having comparative value. She explained this process in Volume 7 at p. 1004, line 13 to p. 1005, line 16:

> Q. Now, I know that you didn't want to get into the business of comparable comparator, but in a nutshell what is it?
>
> A. A comparator?
>
> Q. A comparable comparator?
>
> A. Okay.
>
> In reality, using -- we've talked about point systems, we've talked about the fact that they are based on subjective judgments. And while committees make the best subjective judgements they can, it's pretty hard to say that a job at 100 points is really that much lower than a job at 101 points. So we might say well those two are really comparable.

> Now, we probably could say that a job at 100 points is different than a job at 200 points; but is a job at 100 points different than one at 110? Now we are getting into a grey area.
>
> The analogy I use is that in grading in a classroom situation, you can give students a 70 or 71 or 72 and they all get the same letter grade. So we do some grouping.
>
> So it is quite common in compensation to say that the jobs from 100, let's say to 150 points, are the same. In some systems it's 100 to 120, sometimes it's 100 to 200. So there is some, if you will, banding of points that are then deemed to be of comparable value. So that's allowed under the legislation.

133. The Respondent at first suggested the median be used as the central tendency for comparison, (Respondent's written submissions, paragraph 89). Comparator groups were to be identified by selecting male groups having the median of the observations of work value within a +/- 10% band of the median of the observations of work value for the female-dominated occupational group. The Respondent abandoned that proposal in its oral argument in favour of the mean. Referring to Exhibit R-176, a compilation of male comparator groups for each female complainant occupational group using firstly the Wilcoxon test, then a banding mean and lastly a banding median, Respondent counsel submits in Volume 240 at p. 32023, lines 9-18 as follows:

> I can tell the Tribunal right now that the proposal that the employer is making is column number (2) [banding mean] and the reason is that we have evidence on that in the record, whereas for the methodology that the employer talked about in its written submissions, which was plus or minus 10 per cent of the median, there is no evidence on the record for that. So, the employer is proposing to the Tribunal column number (2), for which we have evidence.

134. In applying the Respondent's last proposed methodology, the lowest paid whole male-dominated occupational group comparator is identified by selecting a male-dominated occupational group having the mean of their job evaluation scores (or observations) of work value within a band of +/- 10% of the mean of the job evaluation scores (or observations) of work value of the female-dominated occupational group.

135. The Respondent contends the wage gap is then calculated by estimating the differences between occupational groups with central tendencies which are equal. In applying this methodology we note there would be no adjustments to the complainant groups with the lowest paid male comparator group. Using the deemed group approach we note two of the female-dominated occupational groups would receive adjustments, these are the LS and HS groups. The Respondent's calculations for the wage gap are provided in Exhibit R-179. According to Respondent counsel differences between female and male occupational groups were made by drawing a vertical line from the mean of the regression line of the female occupational group to the male regression line. The estimated wage rate of the male group is calculated at the point the vertical line intersects the male regression line. The female wage rate and the male wage rate are then compared to determine if a difference exists. (Volume 245, p. 32658 ff.).

136. Respondent counsel further submits a selection of comparators based on the mean rather than the median will yield more comparators and in that sense will, or should, satisfy Dr. Shillington's concerns about including more observations in making the comparison. However the Respondent provided no evidence to support its submission.

137. Respondent counsel also submits the Tribunal need not accept the band of +/= 10% because it has the discretion to define the criteria of comparability and to decide how wide the band should be if two groups are equal. Other parameters of comparability suggested by Respondent counsel are found in Volume 240 at p. 32028, lines 2-14 as follows:

> It is basically as simple as this. You as a tribunal or parties in another case will say: We will consider two groups to be equal if their means are within a certain distance of each other. They could be within a certain percentage distance of each other, they could be within a certain percentile of each other, within a certain corridor, they could be within a certain number of fixed points. Let's say if they are within 40 Willis points of each other we would consider them to be equal.
>
> This is what we are referring to as defining how equal is equal.

138. No witness was produced by the Respondent to testify to the merits of a wage adjustment methodology based on the concept of central tendencies or the suggested methodologies raised by Respondent counsel in the foregoing paragraph. The Respondent contends, since the sample from each group in the JUMI Study was to be representative of the work of the occupational group from which it was drawn, the Tribunal should therefore be able to rely on the measure of "central tendency" as an estimate of the average of the value of work of all jobs in the occupational group.

139. Respondent counsel argues the Tribunal is entitled to rely on the sample sizes used in its "banding mean methodology." According to Respondent counsel these numbers compare to the sample sizes used by Mr. Sunter in his level-to-segment methodology. That raises a question as to whether the sample size of the Respondent's deemed group is representative of the whole population of the deemed group. We note the sample sizes used by Mr. Sunter in the level-to-segment methodology were not intended to represent whole occupational groups.

140. No witness came forward to verify the sufficiency of the sample sizes for the Respondent's wage adjustment methodology. Respondent counsel acknowledged this presents a weakness in their case.

141. During argument Respondent counsel acknowledged a weakness in its methodology respecting sample size when making submissions about Mr. Gower's report. (see Section IV, C(i), Paragraph 115). This is found in Volume 241 at p. 32054, line 23 to p. 32055, line 8:

> So, it is clear that in our case there is a sample of 1,400 jobs. It's not 600, its not 2,400, its somewhere in the middle. So, according to Mr. Gower, it is probably not -- 1,400 is not strong enough to make a group-to-group comparison and that is a weakness. This is a weakness that we are not trying to cover over, it is a weakness of the whole group methodology in this case. The question is whether there are any male groups in this case that do have an adequate sample size in each of those cases.

(ii). Adverse Inference

142. The Alliance claims the Tribunal ought to draw an adverse inference against the Respondent because the Respondent led no evidence to support its whole group wage adjustment methodology. The Respondent argues the circumstances of the case and the questions raised by s. 11 of the Act and s. 14 of the Guidelines do not relate to situations appropriate for drawing an adverse inference as, for example, where a party is asserting or denying a controversial fact and fails to call a witness to present its version of the facts in dispute. The Respondent contends there is no dispute of any fact in issue which would require witnesses from the Respondent or that would justify drawing an adverse inference against the Respondent.

143. Moreover the Respondent contends the dispute lies in the correct interpretation of the law, this being an issue which is wholly within the purview of this Tribunal. The Respondent argues the Tribunal is not entitled to rely on the opinions of pay equity and statistical experts to assist it in the interpretation of the law. The Respondent submits the Tribunal may, nonetheless, draw upon their expertise to find the most appropriate methodology on which to apply the principle of equal pay for work of equal value enacted by Parliament in s. 11 of the Act and s. 14 of the Guidelines.

144. We find there exists a major difficulty with the employer's wage adjustment methodology arising from the lack of reliable evidence before us that the data generated by the JUMI Study supports a methodology of whole group comparators.

145. The Respondent argues that the wage line for each male-dominated occupational group used in its wage adjustment methodology is a reliable measurement for calculating the wage gap. But the Respondent has presented little or no evidentiary basis to support its contention that its wage adjustment methodology is a reliable measurement for calculating the wage gap. Mr. Sunter's use of relatively small sample sizes for his segmented regression does not, in our opinion, validate the Respondent's methodology. The evidence demonstrates the sample sizes used by Mr. Sunter in the level-to-segment wage adjustment methodology were not intended to represent the range of values of an occupational group but only to summarize the male data within the range of the female values of the female level being evaluated.

146. The evidentiary problem became apparent during the Respondent's oral submissions. They were addressed in Volume 245 at p. 32704, line 10 to p. 32709, line 22:

> MR. FRIESEN: All right. I'll refer the Tribunal to the evidence, and then I'll come back to it. The evidence is referred to in Volume 241 of the transcript, and that was where Mr. Chabursky was making submissions in May and he was asked a question by the Tribunal about representativity of the evidence. And he gave references to, in answer to that question, he provided the references to the evidence and quoted at some length from the relevant references. I'll refer the Tribunal to that.
>
> The sources are given in this transcript at page 32045, beginning at line 4. Mr. Chabursky says:
>
> The Chair will recall, and I will take you to the evidence in a moment that indicates that if positions are chosen on a random basis -- probability sampling is what they call it -- then they are representative of the population from which they

are taken, but the question is, were they chosen on a random basis? We have evidence for that in volumes 201 and 203 from Dr. Swimmer.

Before I take you to that, though, it is true that the Joint Initiative did not design the sample for purposes of comparing groups to groups, and that is the evidence of Mr. Ranger. He gave that evidence in Volume 204 at page 26343.

Now, before I read on, I should point out that this whole discussion takes up about 12 pages. It proceeds up to about -- up to page 32056. I wasn't proposing to read it this morning, but to refer the Tribunal to it.

So we're being consistent. We're saying there is some evidence of representativity, there's some evidence on which the Tribunal could rely. We acknowledge that the parties in designing the Joint Initiative did not intend that the evidence be used for this purpose. We acknowledge that the evidence of representativity and of sample size is weak, and that if it's controversial, there would be a basis for challenge. If the other side say, You can't use it for that, then the Tribunal may be precluded from using it for that purpose.

MEMBER COWAN-McGUIGAN: Have you just summarized the 12 pages?

MR. FRIESEN: No, I haven't summarized it. I'm giving -- having referred to the evidence -- if the Tribunal wants, we can read through all that. But there it is -- I'm offering the reference to the evidence --

THE CHAIRPERSON: If you could give us just some points, Mr. Friesen, about where it is in the evidence that, for example, the 26 ships crews would be an adequate and reliable sample.

MR. FRIESEN: W ell, there's no evidence to that effect, Madam Chair. There is no evidence to that effect.

THE CHAIRPERSON: So what are you saying then about your samples for the occupational groups that you want us to use for the deemed group?

MR. FRIESEN: I'm saying that there is some general evidence about randomness of the sample, and that a random sample can be used to draw conclusions and make inferences and generalizations about the population from which it was chosen. There is evidence to that effect. But that is general evidence. There is no specific evidence that says you can use these samples to draw -- to make inferences and generalizations about the SC group. There is no evidence to that effect, I acknowledge that.

THE CHAIRPERSON: Can you use, more specifically, 26 to make a regression that you can rely on for purposes of --

MR. FRIESEN: There's no evidence that we can do that.

THE CHAIRPERSON: -- the wage gap.

MR. FRIESEN: There's no evidence that we can do that. We do submit, however, that the sample size is reliable enough for the deemed group.

THE CHAIRPERSON: On what basis?

MR. FRIESEN: The basis is the one that I gave earlier, that we really apply the principles that Mr. Sunter gave us and the evidence that he gave us about what he did when he used a regression to draw a wage curve for the purpose of making calculations.

THE CHAIRPERSON: Yes, but does it follow that if the 26 isn't reliable for the ship's crew or the 112 isn't reliable for the GS, if you put all those groups together, you make them a deemed group, that the 345 would be reliable for all the occupations in that deemed group? Does that follow? If it's not reliable individually, how can it be reliable as a composite of all of them?

MR. FRIESEN: Because simply put, now we have 345 observations that we have selected, and we're using them in the same way, exactly the same way as Mr. Sunter used his observations, his 76, his 47, that didn't represent anything. They didn't represent anything, and yet he used them to draw regression and calculate a wage gap.

We're saying the Tribunal can take that evidence and say, Therefore we will do it for the deemed group and the Respondent is precluded from challenging that decision.

THE CHAIRPERSON: See, I don't think Mr. Sunter was taking that as representative of a group. He was just taking some values and saying, These are representative of values that fall within the average of the female level. That's all he was doing. He wasn't saying they were representative of anything.

MR. FRIESEN: All right.

THE CHAIRPERSON: So but what you want us to do is say they are -- I think your sample is that they're representative of those occupations in the deemed group.

MR. FRIESEN: Well --

THE CHAIRPERSON: And I think that's a little different.

MR. FRIESEN: Well, Madam Chair, what we've done is to meet the requirements of the Act which says, Identify occupational groups, choose the ones that are performing work of equal value, and if Guideline 14 is valid, combine them. Section 15 tells us, Use a wage curve. We're meeting the requirements of the law.

Now, the Respondent is accepting that the evidentiary basis for doing that is very weak.

MR. RAVEN: I'm sorry to keep making this request, but I think because this is the Respondent's methodology that we, as parties that have to reply, are entitled to a simple "yes" or "no" to the question whether it is the position of the Respondent that the sample supports a reliable basis for drawing regressions for each of these groups. It's not enough just to say that it's weak. Either the position of the Respondent is it's reliable or it's not. And if it's not, then we'll have things to say in reply. And if it is, we'll have things to say in reply.

MR. FRIESEN: The Respondent's submission is made on the assumption that the Tribunal will rule that the sample is not sufficiently reliable. [emphasis added]

147. We believe the Respondent is entitled to answer the complaints and to choose to make its case by relying on the evidence led by the experts who testified before us. On the whole, we believe this is not a situation where the Respondent is attempting to withhold factual evidence in dispute. Therefore, the Tribunal finds no reason to draw an adverse inference in these circumstances and we reject the Alliance's submission in this regard. However the Respondent's decision not to lead evidence about its wage adjustment methodology leaves the Tribunal in a quandary. The Tribunal is placed in an untenable position concerning the reliability of the Respondent's methodology if we are to accept the Respondent's interpretation of s. 11 of the Act and s. 14 of the Guidelines.

148. Our decision not to draw an adverse inference does not imply an acceptance by the Tribunal of the Respondent's contention that the opinions of the pay equity and statistical experts as to the issue before us in this phase of the hearing ("Phase II") should be disregarded or minimized. The nature and scope of wage adjustment methodology in the context of pay equity, particularly with large groups of employees, is complex. The experts provided the Tribunal with analysis and opinions of wage adjustment methodologies for both "direct"and "indirect" comparisons on an individual to individual basis and also in comparisons involving large groups of employees. The Tribunal was introduced to the concept of regression analysis, a statistical formulation, applied in doing indirect comparisons in large group complaints.

149. The Tribunal believes the evidence of the pay equity and statistical experts should be respected and given careful consideration due to the highly complex nature of the subject matter. The Tribunal is not prepared to circumscribe the expert testimony which was presented in regard to wage adjustment methodology applicable in indirect comparisons for large groups of employees. We believe the interpretation of the principles found in the legislation must be made with due regard for the statistical, technical and scientific disciplines which the application of these principles entail. The Tribunal is entitled to the benefit of that evidence when considering the issues before us in Phase II.

150. The Tribunal is of the view that the selection of a wage adjustment methodology requires, for the size and complexity of the complaints before us, the assistance of experts trained in pay equity, compensation and statistics. At the same time we recognize the methodology chosen by the Tribunal must meet the requirements of s.11 of the Act.

V. THE EMPLOYER'S CLASSIFICATION SYSTEM

151. The Respondent is advocating an interpretation of the Act and Guidelines that occupational groups form the basis of comparison in group complaints. Occupational groups are groups of employees within the Respondent's classification system. Mr. Sadler testified about the development of the Respondent's classification system. He testified that in 1962 the Public Service was known as the Civil Service which operated in a totally non-union environment. The classification structure that existed at the time was very complex with three classes of public servants. According to Mr. Sadler, there was the "continuing indeterminate" public servant who fell under the Civil Service Regulations and the Civil Service Act; the "prevailing rate" employee

covered under separate legislation from the Civil Service Act; and the Ships Officers and Ships Crews also covered by separate legislation.

152. Mr. Sadler testified there were approximately 700 classes of indeterminate public servants and these classes were subdivided into grades with each class having its own pay scale. The "prevailing rate" employees were mostly in traditionally blue-collar employment. They were not salaried employees but wage rated, that is, paid an hourly rate rather than an annual or monthly rate. Mr. Sadler testified the "prevailing rate" employees were wage rated in accordance to the wages being paid for other individuals doing the same job in the same location so that, for example, government carpenters were paid in accordance with local carpenter rates. (see Section IX).

153. According to Mr. Durber prior to the introduction of the current classification system there were over 2,000 different job classifications in the Public Service. He testified a simplification of the classification structure took place between 1966 and 1971.

154. Mr. Durber testified that in July 1965 a report was submitted to Prime Minister Pearson from the Chairperson of the Preparatory Committee on Collective Bargaining in the Public Service. The Preparatory Committee was appointed in August 1963 to make preparations for the introduction into the Public Service of an appropriate form of collective bargaining and arbitration. The Committee's mandate also included the duty to examine the need for reforms in the system of classification and pay structure applicable to all civil servants (Exhibit HR-21). The Committee proposed a classification system comprised of occupational categories and groups. The resulting system is essentially the system that exists today.

155. The Report proposed two levels of groupings for employees. The first level of grouping would encompass six major occupational categories. The Committee conceived this categorization to be a broad horizontal division of the Federal Public Service useful for planning and development of personnel policy. It was to consist of occupational groups linked together in a general way by educational requirements and a common approach to classification and pay administration.

156. The second level of grouping would be the occupational group forming a subdivision within an occupational category. It was intended that each occupational group be composed of employees with similar skills, performing similar kinds of work and bearing a relationship to an identifiable outside labour market wherever possible. Each occupational group would have its own pay plan so that its rates of pay could be adjusted independently in response to changes outside the Public Service.

157. The report of the Committee identified six occupational categories and 67 occupational groups. The Committee concluded this system of classification and pay would be able to respond with flexibility, without loss of integrity, to a number of pressures and requirements. Two of the pressures identified were the outside labour market and considerations of equity flowing from evaluations of the relative worth of jobs within an organization.

158. According to Mr. Sadler the rationale behind the proposed structure was to group into six occupational categories areas of employment that were similar in a broad context. Mr. Sadler testified the categories were fine-tuned and as a result approximately 66 smaller occupational groups were formed. We note that occupational groupings from five of the six occupational categories participated in the JUMI Study conducted by the JUMI Committee. The sixth category, not included, was the Executive (EX) category.

159. It is noted the current classification structure has two further levels of grouping that were not identified by the Report of the Preparatory Committee. Some of the occupational groups were further designated into sub-groups and/or levels where applicable. The male-dominated occupational groups tended to comprise a smaller number of employees than the female-dominated occupational groups. The system included more sub groups in the male-dominated occupational groups than in the female-dominated occupational groups.

160. Most of the occupational groupings have both sub-groups and levels, a level being a smaller subdivision than a sub-group. However not all of the occupational groups have sub-groups. The Tribunal was not provided with any rationale for the existence of sub-groups and levels or how they were formulated. We note, for instance, the largest occupational group, the CR occupational group, has no sub-groups but is subdivided into seven separate levels. The CR occupational group is a female-dominated group composed of approximately 50,000 employees and is one of the complainant groups before the Tribunal.

161. Following the passing of the Public Service Staff Relations Act, 1966-67, c.72, s.1 and the implementation of collective bargaining, pay rates were established through collective bargaining for the positions within an occupational group. Pay rates were negotiated between the bargaining agents and the Treasury Board for each of the bargaining units established pursuant to that Act. Pay rates are associated with the levels in an occupational group, if there is one, or with the sub-group if there are no levels.

162. For the most part the bargaining units have continued to mirror the Respondent's classification structure of occupational groups. Each of the occupational groups had its own classification standard or job evaluation plan. There is no uniform job evaluation plan within the Federal Public Service. That is part of the reason for the necessity of using the Willis Plan in the JUMI Study. According to Mr. Durber job classification has been delegated to management personnel within a particular government unit or department. Mr. Sadler testified most departments of government have personnel branches staffed by a group of classification specialists whose duty it is to evaluate jobs. A classification standard is used to determine which group a particular job belongs.

163. Mr. Durber testified the classification standards are established on the authority of the employer who may choose to consult with the bargaining agents. But the ultimate authority rests with the employer who decides under which occupational group and level a job should fall.

164. There are two sub-groups of one occupational group which the Commission has requested the Tribunal treat as distinct and separate occupations for purposes of wage adjustment. This arises within the Data Analysis (DA) occupational group which has two sub-groups, the Data-

Conversion (DA-CON) sub-group and the Data-Production (DA-PRO) sub-group. Overall the gender predominance of the DA group is female. Mr. Sunter's calculations using the level-to-segment methodology produced a positive adjustment for the DA-CON sub-group and a negative adjustment to the DA-PRO sub-group. For purposes of calculation Mr. Sunter split the DA occupational group into two separate groups. His calculations demonstrated one sub-group was clearly male-dominated and the other was clearly female-dominated.

165. Mr. Durber testified Mr. Sunter's calculations demonstrate the distinctiveness of the wage structure between these two sub-groups which arises because of the distinct work of each sub-group. According to Mr. Durber, the DA-CON sub-group is female-dominated and their work involves keyboarding which is not dissimilar in nature to the work of a typist. In contrast the DA-PRO sub-group is male-dominated and their work is quite distinct from keyboarding. Because of the distinctiveness of the work the Commission advocates the DA-CON sub-group and the DA-PRO sub-group be treated as separate occupations for purposes of wage adjustment. Mr. Durber testified this treatment falls within the Commission's view of the objective of s. 11 of the Act, that is to say, particular attention ought to be given to traditionally female work.

166. Mr. Sunter's calculations also demonstrated a small "pocket of maleness"within level 2 of the Court Reporter (COR) sub-group, a sub-group in the Secretarial, Stenographic & Typing (ST) group. Mr. Sunter's calculations triggers a small adjustment for the first level of the COR sub-group and a negative adjustment for the second level. The Commission is not proposing to split the two levels into separate groups but requests that level 2 not receive any adjustment. Applying Statistics Canada characteristics of occupational groups Mr. Durber's view is that the ST-COR sub-group should be treated as a separate occupation for wage adjustment. The ST-COR sub-group comprises employees hired as court reporters. Mr. Durber sees this work as distinct from other secretarial work.

167. We note the Government of Canada is in the process of simplifying the job classification system in the Federal Public Service through an initiative entitled PS2000. A task force has been mandated to examine the design and administration of the existing classification system within the context of values and objectives for a renewed public service. Some details of the initiative are documented in the Executive Summary of a report entitled "Public Service 2000: Report of the Task Force on Classification and Occupational Group Structures", (Exhibit PSAC-60). The report is dated July 20, 1990 and refers to the conclusion of the Task Force made in an earlier preliminary report dated January 31, 1990, of the need to reform the existing classification system by a pragmatic and reasonable approach. There is, according to the Task Force, also a need for significant reduction in the number of occupational groups and levels. Within the context of that conclusion, the report reads at p. 1:

> The new system must enhance career/work development and job enrichment.
>
> It must be free of any systemic discrimination and sexual bias.
> [emphasis added]

168. Further along, the Task Force Report reads as follows at p. 2:
The system must be consistent with the requirements of human rights legislation that introduced the concept of "equal pay for work of equal value". This concept requires that predominantly

male groups and female groups working in the same establishment receive equal pay for work of equal value although the work may be different in nature. This obviously places great emphasis on internal relativity as the underlying principle of compensation. The Task Force feels that its recommendation to combine groups and reduce levels will greatly help the pay equity question. However, the existing classification system does not respond to pay equity issues. Because of the number of classification standards and plans, cross-group comparisons required to deal with pay equity matters cannot be made unless a common classification plan is used.

> The answer lies in a new rating plan which would support the concept of equal pay for work of equal value and rely on internal relatively as the underlying principle of compensation in the Public Service.
>
> For each new occupational group four factors will be present in the rating plan and which will be consistent with the requirements of the Canadian Human Rights Act. Within a new occupational group, under each factor the rating scale and its contents will be structured to measure the significant differences that are applicable to the group. The rating scales and their description can therefore vary from group to group. [emphasis added]

169. A report and a reference guide has been prepared for public sector employees by the PS2000 Classification Simplification Task Force. These were tendered into evidence during the cross-examination of Mr. Durber. They describe the concept of gender neutrality in the preparation of work descriptions. Also tendered into evidence is a third document entitled "Work Description Substantiating Data - A Writer's Check List", published October 5, 1992, to be used by all employees under the new system. Mr. Durber agreed with counsel for the Alliance that this later documentation confirms the PS2000 initiative and the proposed changes to the classification plan are, in part, a recognition and admission that the existing classification system fails to comply with the provisions of the Act. Respondent counsel sought clarification of his response and in particular to the above noted passages from the Report. Mr. Durber testified as follows in Volume 155 at p. 19324, line 1 to p. 19325, line 8:

THE WITNESS: Mr. Friesen, I would read all of this passage in the light of what is highlighted and that is at the beginning where it says the system must be consistent and I would assume that one has to read that it is not now consistent. I hope you will agree with me that it isn't consistent.

> MR. FRIESEN:
>
> Q. I am going to suggest to you that ---
>
> A. Why else would they say it in this passage would be my question.
>
> Q. They are addressing the question. But I am going to suggest to you -- and I don't think we need to debate this to death.
>
> A. Indeed not.
>
> Q. -- but I am going to suggest to you that all that this passage means is that you can't use the existing standards to determine whether it's consistent with the Act. It doesn't say it's inconsistent or violates the Act.
>
> A. And clearly the Commission isn't proposing the UJEP [Universal Job Evaluation Plan] as a remedy at this point at all.

Q. That wasn't my question. My question was whether you are able to point to anything in any of these passages that amount to an admission that the existing classification standards violate section 11.

A. I would say the lead in to that paragraph is pretty close to doing that.

Q. We will leave that for argument, then.

The Tribunal received no further evidence concerning PS2000 or submissions concerning the testimony of Mr. Durber.

170. The organization of work into groupings of traditionally male and female work and the creation and implementation of different classification plans (job evaluation plans) for the various occupational groups in the Federal Public Service resulted in concerns even before the government's proactive initiative in 1985. Prior to the JUMI Study the Alliance took issue with representatives of the Treasury Board concerning the lack of compliance of some of the classification standards with the requirements of s. 11 of the Act. (see Section X, A).

VI. SECTION 11 OF THE CANADIAN HUMAN RIGHTS ACT

A. Systemic Discrimination

171. Since the Tribunal's Phase I decision it has had the benefit of the decision of the Federal Court of Appeal in Public Service Alliance of Canada v. Staff of the Non-Public Funds, Canadian Forces et al. (1996), 199 N.R. 81 (F.C.A.).

172. In an appeal from the decision of a Human Rights Tribunal on the question of retroactive wage adjustment, the Federal Court of Appeal, in Non-Public Funds, supra, ventured to elaborate on the nature of systemic discrimination under s. 11 of the Act. This is the first time since the decision of the Supreme Court of Canada in Canadian National Railway, supra, that a Superior Court expanded and elaborated on the comments of Chief Justice Dickson with respect to systemic discrimination.

173. In Non-Public Funds, supra, a complaint was filed with the Commission on February 12, 1987 alleging the employer was not paying female employees wages equal to those paid to certain male employees performing work of equal value contrary to ss. 7 and 11 of the Act. Prior to the complaint being heard by the Tribunal the parties agreed to resolve the s. 11 complaint by adjusting pay rates in the complainant group in accordance with a proposal made by Dr. Weiner, the same expert who testified before this Tribunal. The issue before that Tribunal was whether there should be a retroactive wage adjustment for a specified time period which was to commence one year prior to the filing of the original complaint. The Tribunal had concluded that no pay adjustment should be made for any part of the period in question and this decision was upheld by the Federal Court Trial Division. That decision was then appealed to the Federal Court of Appeal.

174. Hugessen J.A., writing for the majority, embarked on a discussion of the nature of systemic discrimination in circumstances wherein the employer admitted having engaged in a discriminatory practice that was systemic in nature. In view of those admissions Mr. Justice Hugessen reasoned that an understanding of the phenomenon of systemic discrimination was

critical to an appreciation of the issue of retroactivity. He noted that the employer's job classification system, which lay at the root of the pay equity problem, had existed since 1986 and the discrimination resulted from a system which had undervalued women's work.

175. Hugessen J.A. reviewed the decision of Dickson C.J. in Canadian National Railway, supra. That case dealt with the subject of systemic discrimination in the context of employment equity. Referring to Dickson C.J.'s remarks concerning the Abella report, a study of systemic discrimination in Canada on equality in employment, Hugessen J.A. quoted from the following passage by the Chief Justice at p. 87:

> Later in the same judgment, the Chief Justice returned to the subject and stressed the historical, attitudinal and continuing nature of systemic discrimination:
>
> I have already stressed that systemic discrimination is often unintentional. It results from the application of established practices and policies that, in effect, have a negative impact upon the hiring and advancement prospects of a particular group. It is compounded by the attitudes of managers and co-workers who accept stereotyped visions of the skills and "proper role" of the affected group, visions which lead to the firmly held conviction that members of that group are incapable of doing a particular job, even when that conclusion is objectively false. An employment equity program, such as the one ordered by the Tribunal in the present case, is designed to break a continuing cycle of systemic discrimination.

176. Hugessen J.A. then quoted at length from the 1991 Human Rights Tribunal decision, in regard to the HS complaint filed by the Alliance in 1981. That Tribunal had dealt with the subject matter of systemic discrimination. (see Public Service Alliance of Canada v. Treasury Board (1991), T.D. 4/91 (C.H.R.T.)). That Tribunal's comments are found at p. 88 of Justice Hugessen's decision:

> The concept of systemic discrimination is perhaps as hard to define as such discrimination is to identify. It is not identical in concept to indirect or adverse impact discrimination. Adverse impact discrimination involves requirements which do not, on their face, discriminate on a prohibited ground, but which affect a group identifiable on a prohibited ground in such a way as to have a discriminatory effect on that group.
>
> While adverse impact discrimination may be quite subtle in its operation, often the effect is fairly obvious. Most people today, for example, recognize that minimum height and weight requirements discriminate against women. Similarly, it takes only a fairly rudimentary knowledge of religious diversity to realize that a hard hat requirement will adversely affect one particular religious group.
>
> The concept of systemic discrimination, on the other hand, emphasizes the most subtle forms of discrimination, as indicated by the judgment of Dickson, C.J. in CN v. Canada (Human Rights Commission), [1987] 1 S.C.R. 1114, at 1138-9. It recognizes that long-standing social and cultural mores carry within them value assumptions that contribute to discrimination in ways that are substantially or entirely hidden and unconscious. Thus, the historical experience which has tended to undervalue the work of women may be perpetuated through

> assumptions that certain types of work historically performed by women are inherently less valuable than certain types of work historically performed by men.

177. Following the reference to both Canadian National Railway, supra and the Tribunal's Phase I decision, supra, Hugessen J.A. comments as follows at p. 88:

It is arguable, indeed, that the type of discrimination which pay equity is designed to counteract is always systemic. Thus, Weiner and Gunderson say:

> Regardless of what it is called, pay equity is designed to address a kind of systemic discrimination. Systemic discrimination is found in employment systems. It is the unintended byproduct of seemingly neutral policies and practices. However, these policies and practices may well result in an adverse or disparate impact on one group vis-à-vis another (e.g., on women versus men). This differs from interpersonal discrimination where one individual discriminates against another. Pay equity requires changes to pay systems to ensure that women's jobs are not undervalued.
>
> [emphasis added]

178. He concludes his coverage of this topic at p. 88 with the following comments:

Systemic discrimination is a continuing phenomenon which has its roots deep in history and in societal attitudes. It cannot be isolated to a single action or statement. By its very nature, it extends over time. [emphasis added]

(i). Concept of Causality

179. The Respondent refers to the Tribunal's Phase I decision, supra, to support its submissions that the concept of causation is a requirement of, or is to be read into, the provisions of s. 11 of the Act. Section 11 itself is not predicated upon nor does it invoke the idea of causation. We now find it necessary to review briefly the earlier decision of this Tribunal on which the Respondent relies.

180. The issues arising from the complaints before this Tribunal were separated into three segments or phases. The Respondent's position in this phase, in respect to causation, has shifted from its earlier position which it held in Phase I. In Phase I the Respondent submitted the job evaluation results generated by the JUMI Study were unreliable for purposes of this adjudication. The Respondent alleged the job evaluation results were biased in that the individuals who performed the evaluations were treating the male-dominated employee questionnaires and the female-dominated employee questionnaires differently from the Willis consultants, who were involved in the study and who had evaluated a sampling of the same questionnaires as the committees. (see Phase I decision, supra).

181. The issue before the Tribunal at that time was whether the job evaluation results obtained from the questionnaires in the JUMI Study were reliable for purposes of the s. 11 complaints. The Commission had used these job evaluation results to conclude the wage gap had not been closed as a result of the Respondent's unilateral adjustments of 1990.

182. The Commission and the Alliance requested the Tribunal accept the evaluation scores as evidence of the "value" of work. They contended the evaluation results were sufficiently reliable to establish the equality of work between male and female employees in the s. 11

complaints. Anecdotal and statistical evidence was led by the parties to explain these differences between Willis consultants and the job evaluation committees who had evaluated the same questionnaires. The position of the Commission and the Alliance was that the differences in evaluation scores arose from factors other than gender.

183. The Respondent sought a broad interpretation of the phrase "sexual bias" referred to in s. 9(a) of the Guidelines which it alleged affected the treatment of questionnaires by the evaluation committees. (see Section I, C, Paragraph 18 for s. 9(a)). The Respondent's position then was that the proper interpretation of "sexual bias" did not flow from or include the concept of causality.

184. Each of the parties composed separate questions for the Tribunal to address concerning the meaning of "sexual bias". The Respondent posed its question as follows: Is there a pattern of different treatment of male and female questionnaires? The Commission and the Alliance were dissatisfied that a pattern of differential treatment was all that was necessary to show "sexual bias" in the evaluation results and formulated their question with a causality provision, as follows: "Is there a pattern, a systematic variance of different treatment of male and female questionnaires (in the evaluation process) that was caused by or is attributed to gender-bias or gender-related bias." [emphasis added]

185. At that time the Respondent sought a meaning of "sexual bias" which eliminated the necessity for cause. The Respondent's position is summarized by the Tribunal in its Phase I decision, supra, at p. 32, paragraph 111:

> 111. In formulating the question for the Tribunal to address, Respondent Counsel argues that their formulation does not require a causative factor for the different treatment of male and female questionnaires. The disagreement between the parties lies not in assigning a broad meaning to the words "sexual bias" but instead arises as to whether s. 11 requires the existence of a cause when different treatment of male and female questionnaires is found or whether, on the other hand, it is simply a matter of differential treatment of male and female jobs without the necessity of assigning cause. In support of the Employer's submission, they rely on a meaning of bias which in their view does not require a causal link or relationship under s. 11 of the Act. [emphasis added]

186. In ascertaining whether a causal relationship existed within the meaning of "bias", the Tribunal canvassed the meaning of a "wage gap" which s. 11 of the Act is intended to correct. The Tribunal referred to the expert testimony of Dr. Armstrong, an expert in job evaluation and pay equity. Dr. Armstrong had made significant comments on the overall wage gap prevalent in rates of pay earned by females as compared to males. The Tribunal proceeded to differentiate Dr. Armstrong's description of the overall wage gap to that arising under s. 11 of the Act.

187. The Tribunal then stated at p. 23:

> 85. A wage gap is not something clearly delineated. The Tribunal recognizes that salary differentials between male and female jobs can be a function of job

> requirements making some jobs intrinsically more valuable to the employer than other jobs. Such differentials are in contrast to differentials which are based entirely on gender differences and it is the latter resulting wage gap which the Tribunal believes s. 11 is intended to eliminate.

188. Now, in Phase II, the Respondent relies on paragraph 85 at p. 23 of the Tribunal's earlier decision to support its submission that causation is a factor required under s. 11 of the Act. The Respondent seeks further support from paragraph 99 of the Tribunal's decision at p. 28:

> 99. We must be assured the complaints seek to redress a wage gap based on wage differentials that are gender based and not resulting from other factors. It seems apparent that the existence of a wage gap per se is not proof of discrimination. To hold otherwise would negate the entire evaluation process which has, as its purpose, the comparison of jobs according to a plan or system for rating work according to the criteria prescribed in s. 11(1) of the Act. [emphasis added]

> 100. We also find s. 11 is designed to eliminate economic inequality created by gender based wage discrimination. The discrimination is unintentional as the decision of Dickson C.J. in the CN case, supra, makes clear. It is nevertheless a subtle form of discrimination built into employment practices as they have existed over the years since females have become contributors to the work force. We recognize from the expert testimony of Weiner, Armstrong and Willis that systemic discrimination operates in systems and becomes incorporated into the wage setting practices of organization and that classification of jobs may be the by-product of systemic discrimination. Since systemic discrimination is part of a system never designed to discriminate, Weiner says that it cannot be corrected instantly nor can pay equity be achieved quickly.

189. In addressing the interpretation of s. 11 of the Act, the Respondent refers to paragraph 131 of the decision found at p. 37 in support of the notion of causation under s. 11 of the Act:

> 131. The wage gap to be redressed by s. 11 must be caused by gender based discrimination. Section 9(a) of the Guidelines is subordinate to the enabling legislation, the Act, and is authorized by s. 27(2) of that Act. There is a presumption in favour of the validity of regulations in the light of their enabling statute. In the Interpretation of Legislation in Canada, 2nd Edition, Pierre Andre-Côté at p. 310 the learned author comments as follows:

> Finally it must be pointed out that the regulations are not only deemed to remain intra vires, but also to be formally coherent with the enabling statute.

190. In the final analysis the Tribunal found, in its Phase I decision, supra, the question posed by the Respondent was restrictive when taken in the context of the reliability of the JUMI Study results. Because of the opinions expressed by the pay equity expert, Mr. Willis, and the gender-based nature of the discrimination intended by s. 11 of the Act, the Tribunal held the difference in treatment of the male and female questionnaires had to be gender-based. Therefore, the Tribunal held the differential treatment of the questionnaires by the evaluation committees had to be gender-related or gender-based within the intent of s. 11 of the Act to render the evaluations unreliable. The Tribunal formulated the question to be addressed as follows: Is there a different treatment of male and female questionnaires in the evaluation process that was caused by or attributed to gender-bias or gender-related bias? [emphasis added]

191. The Tribunal acknowledges the notion of causation, which arose during the debate on the issue of gender bias as it relates to the concept of systemic discrimination and to the problem posed by the differential treatment by the committees and by the consultants of the job questionnaires, has now provided the Respondent the opportunity of introducing causation as a factor to be included in the interpretation of s. 11 of the Act. This argument has been advanced despite the Respondent's earlier submission that the notion of causation was not a factor to be considered in the treatment of male and female questionnaires. Also, the Respondent then argued it was not necessary to establish a causal link or relationship when addressing the meaning of "bias" within the context of the legislation.

192. The Respondent relies on the causation argument to support its preferred method of wage adjustment methodology, that is, to use the lowest paid "male" occupational group as a comparator. The Respondent claims this methodology is aimed at redressing only gender-based discrimination. The Respondent cautions the Tribunal against including in the male comparator group other higher paid "male" occupational groups performing work of equal value to the "female" complainant occupational group. The Respondent contends the effect of including other male-dominated occupational groups will widen the wage gap because the wage gap will then be caused by factors other than gender-based discrimination, contrary to s. 11 of the Act.

193. The Tribunal's earlier decision rendered in Phase I must be read in the context of the issue then before the Tribunal. There were differences in evaluation scores between the Willis consultants and the job evaluation committees. The Tribunal was asked to decide if it was necessary to account for these differences within the meaning of "bias" intended by s. 11 of the Act and the Guidelines. This Tribunal needed to examine closely the intent of s. 11 of the Act and what it aims to remedy.

194. The reference to the wage gap was used in a descriptive sense to distinguish the problems s.11 was addressing from other issues raised by Dr. Armstrong and about how the educational, scientific, economic and historical spectrum of the work place in which females continue to play increasingly important roles has affected their pay.

195. The Tribunal is of the opinion the notion of causality may be appropriate in other situations. It is not, in our opinion, appropriate when the discrimination complained of is systemic in nature. The use of the phrases "caused by gender bias" and "caused by gender-related bias" needs to be read in the context of the issues then before the Tribunal. Without endangering the Tribunal's meaning and taken in context, it is apparent that s. 11 of the Act is premised on gender difference.

196. This would avoid any misunderstanding arising from the Tribunal's use of those phrases in its previous ruling. It would also put to rest the sophistry of the Respondent's submissions on this issue.

197. It is noteworthy that the Tribunal, in its Phase I decision, supra, did not elaborate on the evidentiary basis necessary to establish a wage gap under s. 11 of the Act. Accordingly the Tribunal will now examine the problem from the perspective of what constitutes the essential

elements which must be proven to support a prima facie case of discrimination under s. 11 of the Act.

(ii). History of Section 11 of the Canadian Human Rights Act

198. Mr. Durber, an acknowledged expert in pay equity and job evaluation generally, provided the Tribunal with information relating to the historical background, motivation and eventual implementation of the Act. More specifically he testified to the meaning and effect given to s. 11 of the Act in the Commission's approach to the application of that section. According to Mr. Durber the historical context begins with the International Labour Organization (ILO), an organ of the United Nations. The ILO passed a Convention dated June 29, 1951 entitled "Equal Remuneration Convention" (Volume 145, p. 17933). Article II of the Convention, at p. 104, provides for international recognition of the principle of equal remuneration for male and female workers for work of equal value. The Convention encouraged "measures" be taken in order to achieve that principle in practice.

199. The next significant event towards the implementation of s. 11 of the Act, according to Mr. Durber, concerned the report of the Royal Commission on the Status of Women in Canada published on September 28, 1970. That report identified occupational segregation as one of the reasons for women's lower earnings. Furthermore it found that predominantly female professions tended to be paid less than those which were predominantly male.

200. The introduction of a human rights bill was referred to in the Speech from the Throne on October 12, 1976 (Exhibit PIPSC-82). The bill was undertaken on behalf of the Government of Canada to prohibit discrimination on specified grounds. In particular a portion of the bill was intended to establish the principle of equal compensation for work of equal value. An extract from the Speech reads as follows:

> ...In a similar effort to remove obstacles to information and to equal opportunity, the government will introduce a Human Rights Bill. The major effect of the bill will be to prohibit discrimination on the grounds of race, colour, national or ethnic origin, religion, age, sex, marital status, or physical handicap. In particular, the Bill will establish the principle of equal compensation for work of equal value performed of persons of either sex... [emphasis added]

201. The Tribunal was provided with a copy of the minutes of proceedings and evidence of the Standing Committee on Justice and Legal Affairs convened in 1977 while Parliament was considering Bill C-25, the Canadian Human Rights Act. (Exhibit HR-236). The then Minister of Justice and Attorney General of Canada, the Honourable S.R. Basford, appeared before the Committee and spoke as follows:

...[W]e should legislate the principle and through the Commission and through its efforts at setting out guidelines, solve those problems, presumably of definition and application. To this end, the Commission convened a task force in 1977 known as "equal wages task force" to study and report on how value ought to be defined. The task force reported in 1978. It concluded, that on a broad basis, job evaluation practices were sufficiently widespread to afford some guidance and definition for the Commission, and that it ought to be possible to measure, albeit

subjectively, the value of work as required under s. 11 of the Canadian Human Rights Act. [emphasis added]

202. According to Mr. Durber's testimony it was the ILO Convention and the Royal Commission on the Status of Women's Report that lead directly to the enactment of the Act.

203. The Act was assented to on July 14, 1977. However, s. 11 was only proclaimed in force on March 1, 1978. In December 1979 the General Assembly of the United Nations adopted the earlier UN Convention on the elimination of all forms of discrimination against women, which included wage inequality. (Exhibit HR-237).

204. Mr. Durber further testified the terms of s. 11 found in the Act are consistent with the terms of article 11 of the ILO Convention, (Exhibit HR-237). Article 11 of the convention reads:

> Article 11
>
> 1. States Parties shall take all appropriate measures to eliminate discrimination against women in the field of employment in order to ensure, on a basis of equality of men and women, the same rights, in particular:
>
> (d) The right to equal remuneration, including benefits, and to equal treatment in respect of work of equal value, as well as equality of treatment in the evaluation of the quality of work;
>
> [emphasis added]

B. Prima Facie Case of Discrimination

205. In Phase I the Tribunal identified four elements required to satisfy the legal burden on the Commission and the Alliance in order to prove a prima facie case of discrimination under s. 11 of the Act. Based on the provisions of s. 11 of the Act, the companion Guidelines and the state of the pleadings, the four elements were listed by us in Phase I decision, supra, at p. 46, paragraph 165 as follows:

> (i) The complainant groups are female-dominated within the meaning of the Equal Wages Guidelines;
>
> (ii) The comparator groups are male-dominated within the meaning of the Equal Wages Guidelines;
>
> (iii) The value of work assessed is reliable; and
>
> (iv) A comparison of the wages paid for work of equal value produces a wage gap.

206. There is no outstanding issue with respect to elements (i) and (ii). The parties agreed before this Tribunal the groups that were included in the JUMI Study are female-dominated occupational groups and male-dominated occupational groups within the requirement of s. 13 of the Guidelines. That section prescribes the criteria which defines sex predominance (by gender). The Tribunal addressed the third element in Phase I and found the job evaluations were reliable for purposes of wage gap calculations.

207. Therefore wage differences, which arise from a comparison of the wages paid for work of equal value which produces a wage gap listed as item (iv) above, are the focus of this decision because it is the only remaining issue required to establish a prima facie case of discrimination.

208. It is common ground in complaints under the Act that the Complainant bears the initial onus of establishing a prima facie case of discrimination following which, if proven, the burden lies with the Respondent to establish justification for the discriminatory treatment. (see Ontario Human Rights Commission et al. v. Borough of Etobicoke, [1982] 1 S.C.R. 202 and Simpsons-Sears, supra).

209. In Simpsons-Sears, supra, a prima facie case was defined by McIntyre J. at p. 558 as "one which covers the allegations made and which, if they are believed, is complete and sufficient to justify a verdict in the complainant's favour in the absence of an answer from the respondent-employer". In general, according to Phipson on Evidence, 14th ed. (London: Sweet & Maxwell, 1990), paragraph 4-10(b) et seq. the rule which applies is "he who invokes the aid of the law should be the first to prove his case." This rule is founded on considerations of good sense and as well, the general observation that, in the nature of things, a negative is more difficult to establish than an affirmative. (see Robins v. National Trust Company [1927] A.C. 515 (PC)). Referring again to Simpsons-Sears, supra, it is helpful to refer to the following passage as per McIntyre J. at p. 558:

> To begin with, experience has shown that in the resolution of disputes by the employment of the judicial process, the assignment of a burden of proof to one party or the other is an essential element. The burden need not in all cases be heavy -- it will vary with particular cases -- and it may not apply to one party on all issues in the case; it may shift from one to the other. But as a practical expedient it has been found necessary, in order to insure a clear result in any judicial proceeding, to have available as a 'tie-breaker' the concept of the onus of proof...Where adverse effect discrimination on the basis of creed is shown and the offending rule is rationally connected to the performance of the job, as in the case at bar, the employer is not required to justify it but rather to show that he has taken such reasonable steps toward accommodation of the employee's position as are open to him without undue hardship. It seems evident to me that in this kind of case the onus should again rest on the employer, for it is the employer who will be in possession of the necessary information to show undue hardship, and the employee will rarely, if ever, to show its absence.

210. The burden of proof in respect to element (iv), that is a comparison of wages paid for work of equal value which produces a wage gap, rests on the Alliance and the Commission. To satisfy that burden the Alliance and the Commission are required to prove, on a balance of probabilities, that the complainant has been discriminated against pursuant to the provisions of the Act and in particular by its treatment of the female employees who are employed in the same establishment, contrary to the provisions of s. 11 of the said Act.

211. L'Heureux-Dubé J., in her dissenting opinion, in the Supreme Court of Canada decision, Syndicat des employés de production du Québec et de l'Acadie v. Canada (Canadian Human Rights Commission), [1989] 2 S.C.R. 879, canvassed dual concepts of "value" and "equality"

under s. 11 of the Act. Madam Justice L'Heureux-Dubé remarked that the application of the principle of "equal pay for work of equal value" in s. 11 of the Act gives rise to considerable difficulty and that difficulty lies in the dual concept of "equality" and "value". She stressed the concept of "equality" ought not receive a technical or restrictive interpretation. Her Ladyship, however, did not elaborate on the meaning of equality in terms of quantitative comparisons forming a basis for wage adjustment methodology. Neither were quantitative comparisons elaborated on by Sopinka J. who delivered the majority opinion.

212. In S.E.P.Q.A., supra, the Commission had received a s. 11 complaint alleging the employees in the Section fabrication et Manipulation des décor of the CBC, who were predominantly male, were paid more for work of equal value than employees in the Section fabrication et Manipulation des costumes, who were predominantly female. After the Commission conducted its investigation it dismissed the complaint under s. 36(3) of the Act. The Supreme Court was asked to determine whether the decision of the Commission was one that was required to be made on a judicial or quasi-judicial basis within the meaning of s. 28 of the Federal Court Act and, if so, whether the Commission committed a reviewable error.

213. The majority of the Court held the Commission's decision was not one that was required to be made on a judicial or quasi-judicial basis. In dismissing the appeal, Sopinka J. also held that the Commission correctly applied s. 11 of the Act to the facts of the case.

214. Within the context of the Commission's investigation Mr. Justice Sopinka described the application of generally accepted job evaluation techniques to assess the relative value of the jobs in issue. He outlined a three-step process used by the Commission. Without further elaboration he listed as one of the steps, a quantitative comparison of the relative value of jobs. He writes at p. 887:

> The investigation of an equal pay complaint requires the application of generally accepted job evaluation techniques to measure the relative value of the jobs in issue. This process is a three-step procedure:
>
> 1. The investigator must gain a thorough understanding of the job content of each job. This information is obtained from up-to-date job descriptions or position specifications obtained from the employer, and when there is doubt, from the incumbents of the job who are asked to complete the questionnaires. These are known as job fact sheets.
>
> 2. The jobs are then evaluated using a job evaluation plan. The plan will contain techniques used to measure job content according to factors and criteria specified in the plan. This permits a quantitative comparison of the relative value of the jobs. [no details provided]
>
> 3. The quantitative measures of job value are then co-related to appropriate levels of compensation.
>
> [emphasis added]

215. We note Madam Justice L'Heureux-Dubé devoted a section in her dissent to "prima facie discrimination" under s. 11 of the Act. The argument raised by the Appellant before her Ladyship was that the job segregation at the CBC established of itself a prima facie case of

discrimination. The bargaining unit was composed of a minority of female employees who occupied certain "female jobs" and claimed to be paid less than employees occupying other "male jobs" in the unit despite similar working conditions and objectives. The Appellant argued proof of job segregation established prima facie that the wage disparity was discrimination based on gender.

216. During the course of her analysis on the legal definition of wage discrimination under s. 11 of the Act, L'Heureux-Dubé J. recognized the direction of the Supreme Court of Canada in establishing that intent is not a prerequisite element in finding adverse discrimination. (see Robichaud v. Canada (Treasury Board), [1987] 2 S.C.R. 84 and Canadian National Railway, supra). In noting at p. 924 that statistical evidence of professional segregation "is the most precious tool in uncovering adverse discrimination" under ss. 7 and 10 of the Act, her Ladyship stated that the scope of protection provided under s. 11, differs from ss. 7 and 10 by the concept of "equal value". At p. 925, her Ladyship writes:

> That provision does not prevent the employer from remunerating differently jobs which are not "equal" in value. Wage discrimination, in the context of that specific provision, is premised on the equal worth of the work performed by men and women in the establishment. Accordingly, to be successful, a claim brought under s. 11 must establish the equality of the work for which the discriminatory wage differential is alleged. [emphasis added]

217. L'Heureux-Dubé J. ultimately found the evidence of professional segregation does not, in itself, constitute a prima facie case under s. 11, unless such evidence "independently establishes the equal worth of the work under consideration" which was not the case in the evidence before her Ladyship.

218. Within the context of L'Heureux-Dubé J.'s discussion of prima facie discrimination under s. 11 she comments at p. 926 that whether the work performed in the Section that was predominantly female and the work performed in the Section that was predominantly male was of equal value within the meaning of s. 11, "is intimately linked to the procedure followed by the Commission in this case." We note some details of the Commission's procedure for conducting job evaluations were provided. However, there was no explanation of the method of job comparisons.

(i). Concept of "Equal Value"

219. L'Heureux-Dubé J. elaborated more fully on the concept of "equal value" in S.E.P.Q.A., supra, pointing to s. 11(2) of the Act which defines in general terms the manner in which the value of work is to be assessed. That section and s. 3 of the Guidelines identify four criteria to be applied in assessing the value of work, namely, the composite of skill, effort and responsibility required in the performance of the work and the working conditions under which the work is to be performed. L'Heureux-Dubé J. noted these four criteria were also the same criteria recognized in the Equal Pay Act of 1963 in the United States. Her Ladyship concluded s. 11(2) of the Act encompassed the application of job evaluation plans to determine whether jobs are of equal value. She refers to the application by the Commission of the Aiken Plan, a job evaluation plan, to assess the value of the jobs.

220. We conclude from L'Heureux Dubé's dissenting judgment that there must be sufficient evidence of "job value" to meet the requirements of s. 11 of the Act. We believe that aspect has been established through the system of job evaluation conducted in the JUMI Study.

221. The Willis Plan was used in the JUMI Study to evaluate the sample of questionnaires completed by the Respondent's employees. Points were assigned by evaluation committees to each of the four factors, skill, knowledge, responsibility and working conditions identified under s. 11(2) of the Act, for each employee questionnaire. The points assigned for each factor in each questionnaire were then totalled to give an overall point score or rating for each employee questionnaire. These scores are also referred to as the job evaluation results.

222. This Tribunal found as a fact in its earlier decision rendered on February 15, 1996, supra, at paragraph 204, that the Willis Plan was an appropriate tool within the requirements of the Act and Guidelines for the job evaluations. This Tribunal further found at paragraph 205 at p. 55:

The Willis Plan provides a tool to be used in assessing the relative value of work. But in and of itself it does not give a methodology to determine what is the wage gap between female positions and male positions. The determination of any wage gap is a function of comparing evaluations between male and female jobs. The system itself does not do that without a further step.

223. We have heard from Mr. Durber that the Commission does not view "equal value" as a purely technical issue but rather an issue of relative worth. Mr. Durber testified the "equal value" concept has to be assessed in the context of the work being performed. According to Mr. Durber, a job evaluation plan measures characteristics of male and female work and it should be able to measure equivalencies between male and female work. These equivalencies are an integral part of the evaluation process.

224. Mr. Durber further testified the Commission views pay equity as an evolving issue. As part of the explanation for the Commission's approach to a broad interpretation of s. 11 of the Act, Mr. Durber testified, in Volume 145 at p. 17942, lines 1-14 as follows:

> Essentially, I think I have to say that our view is that pay equity is an evolving issue. The fact that we read it broadly and liberally and because it's part of, as you have so rightly said, the Human Rights Act and fundamental issues, means that we try not to take a technical interpretation of that Act.
>
> I think these conventions, as they continue to be promulgated, also show that this business of fundamental rights is an evolving one and not, in other words, something simply in a historical context. I think we have to see these conventions and the Act itself as something where we learn and we interpret broader issues as we go.

And further on he testified in Volume 145 at p. 17943, lines 11 - 22:

A. We certainly don't look on equal value as a purely technical issue. It's a matter of finding equivalencies in value between the work of men and women and by "equivalency" we also don't mean equal pay for equal work. We don't mean exact equivalencies.

I am sure we have heard that there was preceding legislation before the Human Rights Act which provided for equal pay for equal work; that is, substantially the same work. So, we believe that we have to go beyond that exactness to a broader definition of "equality". [emphasis added]

225. Dr. Weiner outlined two basic principles behind the concept of equal pay for work of equal value. The first principle is to evaluate all the jobs to be compared using the same set of criteria. By this process one identifies equal pay for work of equal value. She described these principles in Volume 16, p. 2105, line 9 to p. 2106, line 23:

THE CHAIRPERSON: What I would like to do is step back, to take a step to before you make your decision rules and look at the concepts that we are dealing with here. We are dealing with the concept of equal pay for work of equal value. Is there any way that you could outline what would be the basic principles behind that concept?

THE WITNESS: The basic principles are that: One, you evaluate all the jobs to be compared on the same set of criteria.

THE CHAIRPERSON: I want to write these down so I can understand what you are saying. You evaluate...?

THE WITNESS: All the jobs -- all the female jobs and all the male jobs -- on the same set of criteria. When I use the word "criteria" here, I would be referring to the job evaluation system with its sub-factors, in the weighting of those sub-factors.

I guess a second basic principle is that you have to pick the phrase "equal pay for work of equal value". We have now talked about how we identify equal value and we then have to make sure we define "equal pay" in the same way. By that I mean that if you are going to use the maximum salary for the female jobs, you compare that to the maximum salary for the male jobs. If you cost benefit, you have to cost them the same way. So, you make sure that you are picking up a salary point that is the same for both groups.

Those would be the two basic principles, I think, that come out of the phrase "equal pay for work of equal value".

THE CHAIRPERSON: Are there any other ones?

THE WITNESS: I think anything else starts to get into decision rules where there could be advantages and disadvantages to different methodologies. [emphasis added]

226. The process of job evaluation used in the JUMI Study measured the relative value of skill, effort, responsibility and working conditions of the sampled positions. The job evaluation results of the JUMI Study have been tendered before us as reliable evidence of job value of the different positions evaluated by the Job Evaluation Committees. A wage adjustment methodology allows for the kinds of quantitative comparisons referred to by both Sopinka J. And L'Heureux-Dubé in S.E.P.Q.A., supra. Through the application of the methodology relative values will be compared to determine equivalencies. That, we believe, is how the concept of "equal value" found in s. 11 of the Act is administered in a practical sense.

(ii). Principle of "Equality"

227. All parties have advocated that s. 11 of the Act expresses a principle which must be given a broad interpretation. There exists between the Respondent, on the one hand, and the Commission and Alliance on the other, differing views about the technical and statistical basis upon which the concept of "equality" is required to operate in large group complaints under s. 11 of the Act and under s. 14 of the Guidelines. The Respondent has raised the argument that the "unit of analysis" for making comparisons in s. 11 complaints for large groups is the "occupational group." The Respondent has led no evidence as to its understanding of the meaning of "occupational group" in its wage adjustment methodology, relying only on parts of Mr. Durber's evidence.

228. The Commission's approach, supported by the Alliance, is to disregard the framework of occupational group for making comparisons once gender predominance is determined. Both Mr. Sadler and Mr. Durber testified the Commission's task under s. 11 is to compare "work" not "groups".

229. Mr. Durber testified as to the Commission's views of the Act. He described the Act in general terms as fundamental legislation, quasi-constitutional in nature, which is designed to eliminate discrimination. In particular, s. 11 is intended to eliminate discrimination in the workplace as between males and females (based on sex). He testified the Commission believes it has a duty to interpret the Act in a broad and liberal fashion. He indicated the Commission frequently has technical issues coming before it and where choices must be made it tries to go behind the technical aspects in order to understand the broad purpose of the legislation, which is, to eliminate discrimination by creating conditions of equality.

230. The critical issue raised in this hearing requires a consideration of statutory construction and the approach adopted by the Supreme Court of Canada in interpreting human right legislation.

231. The focus of the Respondent is on the plain meaning of the language of s. 11 of the Act. It argues the approach should be one of ordinary grammatical construction. The Commission and the Alliance seek a purposive approach to an interpretation of s. 11 of the Act.

232. It is patently apparent the legislation has enshrined the principle of equal pay for work of equal value in s.11 of the Act without however articulating a scheme on how this principle is to be implemented. The Commission was given the responsibility for implementing an appropriate mechanism by which to achieve that goal by the power conferred on it pursuant to s. 27(2) of the Act. That provision reads:

> (2) The Commission may, on application or on its own initiative, by order, issue a guideline setting out the extent to which and the manner in which, in the opinion of the Commission, any provision of this Act applies in a particular case or in a class of cases described in the guideline.

233. This Tribunal is guided by the decisions of the Supreme Court of Canada on the proper interpretive attitude towards the Act. The following passage from the decision of Dickson C.J., in Canadian National Railway, supra, is instructive of the Court's approach to interpretation of

the Act's provisions so as to achieve a fair, large and liberal interpretation. Dickson C.J. says at p. 1134:

Human rights legislation is intended to give rise, amongst other things, to individual rights of vital importance, rights capable of enforcement, in the final analysis, in a court of law. I recognize that in the construction of such legislation the words of the Act must be given their plain meaning, but it is equally important that the rights enunciated be given their full recognition and effect. We should not search for ways and means to minimize those rights and to enfeeble their proper impact. Although it may seem commonplace, it may be wise to remind ourselves of the statutory guidance given by the federal Interpretation Act which asserts that statutes are deemed to be remedial and are thus to be given such fair, large and liberal interpretation as will best ensure that their objects are attained. See s. 11 of the Interpretation Act, R.S.C. 1970, c. I-23, as amended. As Elmer A. Driedger, Construction of Statutes (2nd ed. 1983), at p. 87 has written:

> Today there is only one principle or approach, namely, the words of an Act are to be read in their entire context and in their grammatical and ordinary sense harmoniously with the scheme of the Act, the object of the Act and the intention of Parliament.
>
> [emphasis added]

234. Dickson C.J., stressed the remedial nature of the Act and the importance of fully recognizing the rights conferred by it and giving to them the effect intended. It is in essence the impact of the discriminatory act upon the person affected which is decisive in considering a complaint. The Chief Justice affirmed the Court's rejection of the necessity to prove intent in discrimination cases. Intent is not a factor or an element of systemic discrimination whether in the context of employment equity or pay equity.

235. Having regard to the objectives and goals of the Act we accept the purposive approach and believe a wage adjustment methodology must be consistent with the purpose of s. 11 of the Act which is to redress systemic discrimination for work performed by employees. The right to equal pay for work of equal value recognized in s. 11 of the Act must be given the broad, liberal interpretation recognized by Dickson C.J. in Canadian National Railway, supra.

236. In its oral and written submissions, the Respondent contends the phrase which is contained in s. 11 and which reads as follows:

> ...differences in wages between male and female employees who are performing work of equal value...
>
> is severable into two parts, namely:
>
> (i) ...differences in wages between male and female employees; and
> (ii) who are performing work of equal value.
>
> The Respondent thus argues the unit of analysis is expressed in terms of employees in occupational groups and not in terms of work.

237. In our opinion the phrases referred to above are not severable. If one were to insert the conjunctive "and" between "employees" and "who are performing work of equal value", the phrase would read thus:

...differences in wages between male and female employees and who are performing work of equal value...

Even with the insertion of the conjunctive " and" the meaning, it seems to us, remains focussed on work, although the phrase is noteworthy because of its awkwardness. The Respondent has given no authority for severing the phrases quoted above to impute a different meaning to them than is intended by the legislation itself. Therefore the Tribunal rejects this interpretation of s. 11.

238. The concept of equality "...is an elusive concept...and lacks precision of definition..." to paraphrase McIntyre J. in Andrews v. Law of Society of British Columbia, [1989] 1 S.C.R. 143 at p. 164. His Lordship in that case goes on to state as follows:

> It is a comparative concept, the condition of which may only be attained or discerned by comparison with the condition of others in the social and political setting in which the question arises.

In Andrews, supra, the Court was addressing the application of s. 15(1) of the Charter of Rights and Freedoms in an action by a permanent resident of Canada, who was not a citizen and was barred from admission to the Bar of British Columbia pursuant to s. 42 of the Barristers and Solicitors Act of that Province. In his minority decision, McIntyre J. adopted the criticism of the "similarity situated test" enunciated by Kerans J.A. in Mahe v. The Queen in Right of Alberta (1987), 42 D.L.R. (4th) 514 (Alta. C.A.) at p. 546 in which he states as follows:

...the test accepts an idea of equality which is almost mechanical, with no scope for considering the reason for the distinction. In consequence, subtleties are found to justify a finding of dissimilarity which reduces the test to a categorization game. Moreover the test is not helpful. After all, most laws are enacted for the specific purpose of offering a benefit or imposing a burden on some person and not on others. The test catches every conceivable difference legal treatment.

McIntyre J. then comments as follows at p. 168:

For the reasons outlined above, the test cannot be accepted as a fixed rule or formula for the resolution of the equality questions arising under the Charter. Consideration must be given to the content of the law, to its purpose, and to its impact upon those to whom it applies, and also upon those whom it excludes from its application. The issues which will arise from case to case are such that it would be wrong to attempt to confine these considerations within a fixed and limited formula. [emphasis added]

239. The historical, political and social basis for the introduction of s. 11 of the Act was to counter systemic discrimination which had deprived female workers of wages of which they are equally deserving compared to male workers. In our view, s. 11 of the Act focuses on and is directed towards the notion of equality as between male work compared to female work as it has been traditionally understood in a historical and societal perspective. Section 11 of the Act is an attempt to remedy what had become an issue of social justice. The fundamental purpose and goal of the Act is to give effect to the principle of equality which, in our opinion, favours equal treatment for female work relative to male work. Therefore, we believe that s. 11 is aimed at redressing a wage gap between male and female employees who perform "work" of equal value. Where the work is deemed to be of equal value it should be paid the same.

240. The principle of equality that arises in s. 11 is a comparative concept. In our view it is difficult to achieve exactitudes with a job evaluation procedure which is, by its nature, subjective. Job evaluation, which identifies job value and the mechanism of wage adjustment methodologies for testing and measuring the relative value between job factors, which in themselves are quite distinct, are not simple quantitative processes.

241. Section 11 of the Act has expanded the concept of discrimination into the emerging field of pay equity. The federal government approached the problem of systemic discrimination in 1978 by using the complaint-based process provided for in the Act as opposed to the proactive approach undertaken by some of the provincial legislatures. As we have seen, five of the provinces Manitoba, Ontario, New Brunswick, Nova Scotia, and Prince Edward Island have passed pay equity legislation requiring public sector employers to implement pay equity plans within their establishments. Québec deals with pay equity in its Human Rights Charter on a case by case basis. British Columbia and Newfoundland have agreements to introduce pay equity and Alberta and Saskatchewan have no legislative program at the present time.

242. According to Dr. Weiner, the phrase "pay equity" is often referred to in federal writings, as "equal pay". Both of these phrases are shorthand for "equal pay for work of equal value." The principle of "equal pay for work of equal value" has been treated as synonymous with the more familiar phrase "pay equity". Recently Hugessen J.A. in Non-Public Funds, supra, wrote at p. 81: "This case concerns pay equity."

243. The Federal Government instructed the Commission to devise a process for determining how the principle of equality that arises in s. 11 of the Act might be implemented in a practical sense. The Government empowered the Commission through s. 27(2) of the Act to establish guidelines that would implement the principle of equal pay for work of equal value.

244. Over a period of time guidelines were enacted and amended as complaints were filed under the Act. The current Guidelines were proclaimed in November 1986 following active input from the various stakeholders, interest groups, federal employers and federal unions. It is to be noted that no precise wage adjustment methodology for group complaints was spelled out in the Guidelines. We believe it reasonable to infer from this the Commission favours a flexible approach as opposed to a regulated one. Flexibility allows the Commission to adopt a methodology best suited to the circumstances of the case.

245. Absent a "fixed rule or formula for the resolution of equality questions..." per McIntyre J. in Andrews, supra, the Commission is free to call upon and rely on the expertise of persons such as Dr. Weiner, Mr. Sunter, Dr. Shillington and Mr. Durber when applying compensatory techniques commonly used in pay equity exercises in order to determine if a wage gap exists.

246. We are of the opinion, therefore, if a difference in wages is established through a methodology that adheres to the principles of "equal value" and "equality" it will be sufficient proof of a prima facie discrimination based on gender under s. 11 without recourse being had to the notion of causation. We have already referred to the concept of "causality" in this discussion. It is, in our opinion, incompatible within the prevailing historical and social context

which must be recognized when addressing the injustices generated under systemic discrimination based on gender.

247. The separate methodologies of comparison favoured by each party will be addressed with these elements in mind. Before doing so, we believe it is essential for determining the existence of a wage gap that the relevant Guidelines be understood.

VII. THE EQUAL WAGES GUIDELINES

A. History of the Equal Wages Guidelines

248. Parliament empowered the Commission pursuant to s. 27(2) of the Act to issue guidelines "setting out the extent to which and the manner in which, in the opinion of the Commission, any provision of the Act applies in a particular case..." The current Guidelines dated November 18, 1986 and gazetted in December 1986 incorporate provisions relating to group complaints found under the heading "Complaints by Groups". They read:

> Complaints by Groups
>
> 12 Where a complaint alleging different wages is filed by or on behalf of an identifiable occupational group, the group must be predominantly of one sex and the group to which the comparison is made must be predominantly of the other sex.
>
> 13 For the purpose of section 12, an occupational group is composed predominantly of one sex where the number of members of that sex constituted, for the year immediately preceding the day on which the complaint is filed, at least
>
> (a) 70 per cent of the occupational group, if the group has less than 100 members;
> (b) 60 per cent of the occupational group, if the group has from 100 to 500 members; and
> (c) 55 per cent of the occupational group, if the group has more than 500 members.
>
> 14 Where a comparison is made between the occupational group that filed a complaint alleging a difference in wages and other occupational groups, those other groups are deemed to be one group.
>
> 15 (1) Where a complaint alleging a difference in wages between an occupational group and any other occupational group is filed and a direct comparison of the value of the work performed and the wages received by employees of the occupational groups cannot be made, for the purposes of section 11 of the Act, the work performed and the wages received by the employees of each occupational group may be compared indirectly.
>
> (2) For the purposes of comparing wages received by employees of the occupational groups referred to in subsection (1), the wage curve of the other occupational group referred to in that subsection shall be used to establish the

difference in wages, if any, between the employees of the occupational group on behalf of which the complaint is made and the other occupational group.

249. The first version of the Guidelines, published in 1978, did not address the application of s. 11 to group complaints. Sections 13 through 15 were first introduced into the revised Guidelines issued and gazetted in November of 1986. Prior to the last revision the Commission had identified employer and employee associations seeking to comply with s. 11 of the Act. Mr. Durber testified in order to assist the Commission in investigating complaints under s. 11 there was a need to know whether groups of workers who had filed complaints were predominantly male or female. The Commission had the task of drafting a guideline for that purpose.

250. During the process of revising the Guidelines the Commission published "Background Notes of Proposed Guidelines - Equal Pay for Work of Equal Value" in March 1985, (Exhibit HR-18, Tab 5). This document was sent to 70 employers, unions and interest groups with a request for comments. Appended to the Background Notes were draft guidelines on sex predominance, group complaints, the same establishment and value.

251. The Tribunal did not receive the full text of the Commission's Background Notes but they did include a reference to group complaints in the document tendered into evidence. It is noted the Commission, in its proposed draft guidelines, introduced the concept of averaging the male group wage comparisons. This concept is prevalent in each of the methodologies advanced by the parties. The Background Notes provide an illustration of a method proposed for adjusting wages using a regression line at p. 7:

> II - GROUP COMPLAINTS
>
> A number of problems are encountered in dealing with groups of employees and with individuals as members of groups.
>
> Subsection 1 of the proposed guideline states the requirement for sex predominance and emphasizes that the sexual composition of the group to which an individual belongs must be considered in determining whether sexual discrimination exists.
>
> Subsections 2 and 3 set out the concept of indirect comparison of employees who are members of groups.
>
> Indirect comparison is already Commission practice, and it represents a move in the direction of comparable worth/pay equity as the terms are understood in the United States.
>
> Central to this guideline is the concept of the adjustment of female* group wages to an average level of male group wages. This method ensures that women as individuals will earn at least the average wage paid to men doing work of equal value in the same establishment.
>
> APPENDIX B: DRAFT PROPOSED GUIDELINES
>
> GROUP COMPLAINTS
>
> 1) Where a complaint involves an occupational group or groups the complaining group must be predominantly of one sex; and the group(s) to which a comparison

is to be made predominantly of the other sex. Where a complaint involves an individual or a group of individuals who are members of a larger occupational group, the sex characteristics of the larger group will be considered in deciding whether the situation complained about is discriminatory on the basis of sex.

2) Where a complaint involves more than one individual or group of employees, the individuals or groups to whom a comparison is being made will be considered to be one group. For purposes of wage determination, the weighted average wage paid to each cluster of employees in the comparison group who are performing work of equal value will be employed.

3) Where the direct comparison of employees in one group with individuals or employees of another group is not possible, the Commission will consider proposals for the adjustment of salaries that are based on indirect comparisons, including standard statistical methods such as regression analysis to establish a salary trend line. In these cases, where an adjustment is indicated, the wages of employees in the complaint group shall be adjusted to the level predicted by the salary trend line of the comparison group for the value of the work performed by those employees.

[emphasis added]

252. Ms. Millar testified on behalf of the Alliance that the 1986 proposed guidelines on group complaints and the accompanying background notes (Exhibit HR-18, Tab 5), particularly p. 7 of the background notes which illustrates wage lines representing average male salaries, describe essentially what was agreed between the Alliance and the Treasury Board to settle the GS complaint. (see Section I, B, Paragraph 8).

253. According to Mr. Durber the Commission received submissions from 39 organizations, including the Respondent. The Commission met with many of the 39 organizations. Mr. Durber explained there were two areas of common concern from those organizations. The first area was a requirement for sex predominance, now covered in s. 13 of the Guidelines. The second area of concern was regional rates (see Section IX). Other concerns raised were the issue of ratcheting (see Section VIII, B), how to assess value, indirect comparisons (see Section VII, E(i)), and utilization of regression analysis (see Section VII, E(i)). Mr. Durber testified that after myriad correspondence and a number of meetings the Commission made "fairly noteworthy changes" to its proposal. (Volume 186, p. 18101).

254. In a memorandum dated February 4, 1985 from Hanne Jensen, who is identified as the Director, Complaints and Compliance Branch of the Commission and addressed to Members of the Commission, (Exhibit PIPSC-3), both the Commission's preferred approach to adjusting wages in group complaints and the Respondent's approach was described. The relevant portions of the memorandum read as follows at p. 3:

The approach detailed in the proposed guideline was used in calculating the retroactive portion of the General Services groups complaint. The method of adjustment ensures that women as individuals will earn the average wage paid to men. There will still be some women earning more and there will be some men earning less than women. This is unavoidable, in any approach using an average

wage as a basis for adjustment. It should be noted that this approach may be criticized by women's groups as a "dilution" of S. 11.

The proposed approach will also raise objections from Treasury Board, who are still proposing a form of averaging that the Commission rejected in 1981 as a method of settling the GS complaint. Briefly, it proposed averaging male wages, averaging female wages , calculating the percentage difference and increasing female wages by that percentage. (method III) This approach would have ensured that women as a group received the average male wage. One of the problems with this approach is that some women will continue to receive less than the average male wage, and some more. Indeed, in the GS complaint the wages for a number of women's jobs would have exceeded the highest paid male jobs. The Treasury Board staff argument in favour of this approach is that it preserves the relativity existing among female groups. Where one female group is higher paid than another, it is argued that this difference is non-discriminatory and cannot be addressed by Section 11. The counter argument is that these differences are evidence that some female groups have been discriminated against more than others. The Treasury Board staff approach is sound only if their line of reasoning can be accepted. The draft guideline is based on the premise that differences in wages among women are due to varying degrees of discrimination. If that view is accepted, the method described [p]roposed guideline best addresses that situation.

255. There is some evidence before the Tribunal in the testimony of Ms. Lise Ouimet about the Respondent's reaction to the draft Guidelines circulated by the Commission in 1986. During the Voir Dire, supra, concerning the admissibility of the data generated during the JUMI Study, Ms. Ouimet testified about the Respondent's position on the use of the information gathered in the JUMI Study. Ms. Ouimet was the Respondent's co-chair of the JUMI Committee. As part of her testimony, Ms. Ouimet admitted she had presented a paper at a seminar at York University, Toronto, in March 1987. The university was hosting a conference on Equal Pay for Work of Equal Value. Her paper (Exhibit PSAC-20) reveals, to some extent, the Respondent's positive reaction to the revised Guidelines and reads in part:

The Canadian Human Rights Commission has recently approved Guidelines which address a number of the issues related to the implementation of equal pay for work of equal value. Two of the interpretations we e[s]pecially welcome are related to regional rates as a reasonable factor for wage differences, and the acceptance of using the weighted average of wages paid comparison groups in calculating equal pay adjustments for a complainant group as opposed to settling to the highest comparison wage. This will eliminate the risk of creating grounds for reverse discrimination. [emphasis added]

256. The final version of the Guidelines pertaining to group complaints, issued and gazetted in November 1986, included the new section "Complaints by Groups" sections 12 through 15. We note the four sections under the heading "Complaints by Groups" in the final version of the Guidelines does not specify a methodology for wage adjustment in determining how the work of male and female employees can be compared so as to be consistent with s. 11 of the Act.

257. We further note this final version introduced the term "occupational group" into the section without defining its meaning. No explanation was provided concerning the introduction of this phrase.

258. According to Mr. Sadler a feature of the 1986 Guidelines and specifically ss. 11 through to 15, notwithstanding the term "occupational group", enables the Commission to apply the Guidelines in both a structured group situation and in an unstructured group situation. Mr. Sadler testified the formal grouping of jobs into occupational groups in the late 1960s within the Public Service was established for the purposes of collective bargaining. That is part of the reason why, in a s. 11 complaint, the Commission does not consider itself bound, under the Act, to the Respondent's classification system.

B. Sections 12 and 13 of the Equal Wages Guidelines

(i). Occupational Groups

259. Mr. Durber testified that although s. 11 of the Act does not refer to groups, it implies groups when it refers to male and female "employees". He said groups are referenced in the Guidelines for s. 11 complaints, by the use of the language found in the heading "Complaints by Groups", introducing ss. 12 through to 15.

260. Mr. Durber testified the Commission needs to understand what is male and female work at the onset of a group complaint. For this reason the Commission "pays attention" to the issue of percentage of males and females in occupations as required by s. 13 of the Guidelines. As explained by Mr. Durber the Commission does not automatically accept the occupational group designation of the employer's organization when determining sex predominance. He testified the Commission applies a broad interpretation to the term "occupational group". He stated the Commission may, for example, consider other official usage of the terminology "occupational group" such as that used by the National Occupational Classification publication. According to Mr. Durber the National Occupational Classification is a publication which embodies and refines concepts which Statistics Canada and Employment & Immigration have used for some years. Its purpose is to determine boundaries between occupational groups. One reason the Commission does not automatically use the occupational groups designations of an organization is explained by Mr. Durber in Volume 145 at p. 17977, line 20 to p. 17978, line 12 as follows:

> Q. When you say that, does that mean that you don't automatically take the occupational group designation of the organization which is named in the complaint?
>
> A. No, we don't. There are a number of reasons for that. One is that the workforce is already highly occupationally segregated and that segregation may give rise to difficulties for pay equity.
>
> What we are really trying to do is enable ourselves to look at what is men's work and what is women's work and if the structure the employer uses doesn't help us to get at men and women's work, then I think we have to look at it very closely to determine whether it's helpful in a complaints investigation or impedes. We have criteria that we have to bring to bear in testing the occupational grouping.

261. The Commission uses other criteria to designate a group including an examination of the skill level of particular jobs. This means assessing the amount and type of education, training, entry-level experience, complexity and responsibilities of the work. The Commission may look

for occupational specialization or occupational mobility which examines whether jobs are inter-related so as to form "job families". Still other criteria considered by the Commission are salary structure, similar work and linkages in salary structures and career structures.

262. The Commission's approach to defining a "group" was further clarified by Mr. Durber under cross-examination by the Respondent in Volume 162 at p. 20207, line 2 to p. 20209, line 23 as follows:

> Q. Now, would it be the position of the Commission that an equal pay complaint can be made on behalf of any group of individuals but would constitute an occupational group the way you've just defined it?
>
> A. Well, I think we ought to be somewhat clear here. The Commission isn't in the business of inviting complaints. We try to play a neutral role. So when you say a group can make complaints, I want to be quite clear that the Commission isn't in the business of permitting complaints. What constitutes a reasonable group for a complaint I think would first of all be up to the individuals concerned. They might seek advice from the Commission.
>
> We had an inquiry recently, for example, from nurses who were within a broader bargaining unit in a Crown corporation, and they asked us whether they could -- whether they could lodge a complaint. Well, clearly, everyone has the right to lodge a complaint.
>
> Now, whether they were a group or not would remain to be seen probably during investigation. But -- by the way, we've yet to see a complaint. Now, on the face of it, of course, it's quite clear that nursing is a profession, it's accepted as a profession, so that some of these answers as to whether a group is a group are somewhat self-evident. But people, for example, in a specific job such as, let us say, pay clerks, might consider themselves to be a group, even though they're part of a broader, let us say, clerical group as in the public service. And then one would have to look at the nature of issues they were bringing forward in order to understand how discrimination, if at all, worked in respect of the people in that specific job.
>
> Q. That's a good example, Mr. Durber. And if you were satisfied after investigation that the pay clerks meet the definition of occupational group or meet your -- come within the meaning of that expression, I guess is a better way of saying it.
>
> A. Yes.
>
> Q. I guess that's what I'm trying to ascertain, is whether the Commission would then be prepared to treat them as an entity and deal with that complaint as a group complaint in looking for comparison with other groups?
>
> A. Well, I think the Commission has an obligation to investigate, in any event, under the Statute, unless under section 41 there are some impediments. But, yes, we would examine whether the characteristics of the work made it sensible to treat all of these individuals together in an occupational sense. I think we would have to recognize that those pay clerks did not have their own salary structure, if

we use the public service as an example, so we would then have to examine the nature of the difficulties, the discrimination that was alleged.

It might, for example, relate to how their work was valued. And indeed, we've seen instances of that. We had a complaint of registered nursing assistants, for example, compared with orderlies. Now, each of those groupings, if you like, was a job, and because it was a job with linkages in terms of the work, you could say it was occupational. So that complaint proceeded, and indeed, it reached a satisfactory conclusion of a settlement.

Q. And that's although the employer had established that as part of a larger group?

A. Both of those jobs were part of a female predominant group, hospital services, but the Commission was satisfied that the registered nursing assistants were predominantly female and the orderlies were predominantly male. And the issue then was not the discrimination in the broader salary structure, which of course covered both, but in the value of the work, that is, should RNAs be the same as or greater than, whatever, in value than the orderlies.

So again, that depended on the nature of the discrimination alleged, what one focused on. But clearly, that was an occupational group in the broad sense of the word. Both of them, I should say, were occupational.

263. Mr. Durber testified from the Commission's perspective the concept of "occupational group" is only necessary during the Commission's investigation of a complaint. It is applied by the Commission when determining the sex predominance of the complainant and comparator groups identified in the complaint. Once this is accomplished the notion of occupational group is set aside by the Commission investigator.

264. Mr. Durber testified the "occupational group" determination made for purposes of sex predominance in the investigation of the complaint no longer applies in formulating a wage adjustment methodology because the focus for comparison is then on the "work" rather than on comparing groups. He testified to that effect in Volume 162 at p. 20210, line 10 to p. 20211, line 13:

Q. Thank you. Now, I would like to consider the term, the expression, rather, occupational group, being applied to the comparator. So we've discussed it in the context of the complainants, and now I'd like to consider it as we look for comparators for the complainants.

As I understand it, the Commission is proposing in this case that the comparator be all of the male questionnaires that fall within the range of the minimum and maximum scores for a level of a female occupational group?

A. I believe that that's what the methodology for wage comparison comes down to, yes. That is, we're looking at work of equal value, which is a somewhat different question, I think, from the constitution of occupational groups.

Q. Well, all right. Now, are you saying that the comparator does not need to be an occupational group?

A. No, no. What I am saying is that one needs to understand what is male and female work at the outset of a complaint when one looks at groups. That is, one must pay attention to the issue of percentage of males and females in occupations. Once that is done, one then goes on to compare work as between the complainant occupational group and males doing work of equal value to that female occupational group.

Q. All right. And in deciding which males you will use as comparators you do not apply as a criteria that they must have a similarity of work?

A. No, I believe that the issue then, occupational grouping, has been set aside, because what we're then doing is we're then comparing work of equal value, not groups of equal value.

265. The difficulty of attributing a precise meaning to the term "occupational group" was acknowledged by Dr. Weiner in her evidence. She considered the definition found in a Canadian personnel textbook fitting, it described an "occupational group" as "a grouping of jobs with broadly similar content". (Volume 8, p. 1115). That definition accords with Dr. Weiner's understanding of the term. She testified that within the occupation jobs have a commonality of function such as that which exists with nurses and with accountants. Dr. Weiner's approach is to distinguish a "position" from a "job". She described a "position" as an element of work, i.e., a combination of tasks and duties. She defined a "job" as a grouping of positions and an "occupation" as a grouping of jobs.

266. As we noted earlier (see Section I, C, Paragraph 27) because of the JUMI Study it was not necessary for the Commission to determine the sex predominance of either the complainant or the comparator group that was used in the JUMI Study. The JUMI Committee designated which occupational groups were female-dominated and which groups were male-dominated using the criteria found in s. 13 of the Guidelines. All parties, the Commission, the Alliance and the Respondent have informed this Tribunal the sex predominance of the Complainant groups and the comparator groups is not in issue. It seems the concept of "occupational group" as defined by the Employer's classification system was applied by the JUMI Committee in its designation of female predominant and male predominant groups.

267. We find in a s. 11 complaint the discrimination claimed is made on the basis of gender. Therefore to be a valid complaint the complainant group and the comparator group must meet the qualifications set down in s. 13 of the Guidelines. Section 13 of the Guidelines lays out the requirement that the complainant group must be predominantly of one sex and the group that is identified in the complaint as the comparator group must be predominantly of the opposite sex. This is the essential element which must be achieved in order for the complaint to be viewed as valid and worthy of investigation by the Commission.

268. Since s. 11 of the Act is aimed at comparing the value of work, it does not make sense to restrict comparison in the Guidelines by the occupational classifications of the employer which have, in part, contributed to the problem. The employer's classification system was developed primarily for collective bargaining purposes which formalized into categories the occupational segregation of work. The largest occupational group in the Federal Public Service is the CR occupational group, comprising 50,000 employees, a female-dominated group. Compared to the

small number of female-dominated occupational groups, there are many more male-dominated occupational groups in the Federal Public Service. In the JUMI Study there were nine female-dominated occupational groups that participated compared to 53 male-dominated occupational groups. We believe a whole occupational group approach only perpetuates the problem of undervaluation of female work. Dr. Weiner pointed out in Volume 6 that occupational segregation has given rise to the need for pay equity. She says at p. 895, lines 1-5:

> Occupational segregation is one of the conditions that lead to the need for pay equity. The second condition requiring pay equity is undervaluation and underpayment of the work done by women.

269. In rejecting the whole occupational group approach as inappropriate in large group complaints, Dr. Weiner described it as "cherry picks". We refer to her explanation found in Volume 16 at p. 2208, line 8 to p. 2209, line 1:

A. The disadvantage would be that if someone -- as a colleague of mine likes to say -- "cherry picks", they could say, look there is, let's say, four or five occupational groups that could be the one we could make a direct comparison to. One side might have that it's to their advantage to pick the male occupational group that would get them the highest adjustment; another side might say, well let's pick the occupational group that would get them the lowest adjustment.

> So if you go to pick one when you could use four or five then you are into this -- in addition to pay equity we either want to get the most money or we want to pay out the least. If you say let's combine the information from those four or five, then you get something closer to the middle and you get rid of this extreme or having another agenda item.

270. We must now examine the meaning of the term "occupational group" found in ss. 14 and 15 of the Guidelines.

C. Section 14 of the Equal Wages Guidelines

271. Section 14 of the Guidelines reads as follows:

> 14 Where a comparison is made between the occupational group that filed a complaint alleging a difference in wages and other occupational groups, those other groups are deemed to be one group.

272. The Respondent argues that ss. 12 to 15 of the Guidelines mandates that occupational groups must form the basis of comparison in group complaints. The Respondent contends s. 14 of the Guidelines is invalid because it provides for the combining of male comparator occupational groups into a deemed group contrary to the concept of "causation" and "equal value" required by s. 11 of the Act.

273. The Respondent challenges the validity of s. 14 of the Guidelines alleging that the combined effect of that section taken with s. 11 of the Act renders s. 14 of the Guidelines invalid. The Respondent claims s. 14 is inconsistent with the concept of "equality" contained in s. 11 of the Act. According to the Respondent a combination of male comparator occupational groups, which on an individual basis are not equal to the female complainant occupational

groups, are blended by virtue of s. 14 of the Guidelines to form a deemed group. The result, the Respondent contends, offends the requirements of equality under s. 11 of the Act.

274. Critical to the Respondent's challenge to the validity of s. 14 of the Guidelines is the Respondent's interpretation of "employees" as contained in s. 11 of the Act. It contends that the word "employees" as it appears in s. 11 means "occupational groups" when dealing with group complaints and that this meaning is defined by the employer's classification system.

275. Dr. Weiner's understanding of s. 14 of the Guidelines and the meaning of an occupational group was provided in her examination-in-chief in Volume 7 at p. 1048, line 13 to p. 1049, line 19 as follows:

> Q. Could I ask you to read Section 14 for yourself, please?
>
> A. It seems there is a single occupational group, presumably female, which has made a complaint. It should be compared against all male jobs of a similar value range. I would say that is going to the segmented line and looking at male jobs falling within the same value range as this female occupation.
>
> Q. The section refers to groups. Is it your understanding that the guidelines do not define what a group is?
>
> A. That is my understanding.
>
> Q. In compensation, what is a group?
>
> A. The word "group" doesn't have a lot of meaning. If you are talking about an occupational group, that would be jobs similar in function but different in level. Within the probation officer group, there would be entry level probation officers, senior probation officers and probation officers who supervise jobs. That could be considered an occupation.
>
> Q. In your opinion as a practitioner, is the use of composite line or segmented line permitted under Section 14?
>
> A. I would see a segmented line as consistent with Section 14.

276. Later, Dr. Weiner indicated s. 14 of the Guidelines also contemplated the composite line approach. She stated in Volume 9 at p. 1223, line 22 to p. 1224, line 14 as follows:

Now, you referred to section 14 of the Guidelines and indicated that, in your view, section 14 of the Guidelines supported a segmented line approach.

> A. You could use a segmented line approach with section 14, that is right.
>
> Q. Would you --
>
> A. But, you do not have to.
>
> Q. You do not have to. And that was my next question.
>
> Would you agree with me that section 14 also supports a composite line approach?
>
> A. Yes, it is one of those decisions that the parties could decide.

Q. And section 15, equally, supports a composite line approach?

A. Right.

277. Dr. Weiner provided a further insight into her understanding of s. 14 of the Guidelines when questioned by Respondent counsel. She believed the effect of s. 14 was to allow for group boundaries to change and testified in Volume 10 at p. 1441, line 7 to p. 1443, line 4 as follows:

So, what I would like you to do now is remember the content of 14 and 15 and read them -- or read 12 and 13.

A. Okay.

Q. Now, that you have read these provisions let me ask, do you agree, as a pay equity expert, that even the word "group" because it is not defined, and in your own statement -- and I quote: "Doesn't have a lot of meaning." I refer you to transcript, Volume VII, Page 1049.

"Q. In compensation, what is a group."

And you said:

"The word "group" doesn't have a lot of meaning."

Although, after that, to be fair, you have qualified it and we will get into that later.

But for the time being you will agree that even if it doesn't have a lot of meaning, once we have chosen what it is, in terms of units, group there, it is necessary and very important to stick with that unit throughout the process of pay equity analysis and not change the rules of the game in mid-stream, to use your own word?

A. The word "group" here seems to refer to an occupational group.

Q. Yes.

A. All right, and then in 14, it seems to say that the complaining occupational group must -- that you can never change that. But if there is other occupational groups, so more than one male occupational group against whom the complaint is made, I read Section 14 to say that these occupational groups are deemed to be one group. So, that the boundaries of that group change.

Q. We will get into that, but my question is, in your view, given we don't have a specific notion of the term "group" here, because it is not defined, in your view, is it important to stick with it once we have chosen that notion and not change the definition of "group" as we go along?

A. Consistency always sounds like a good idea in general. Sometimes when you get to specific pieces you find out why it's called the "hobgoblin of small [l]ines." [emphasis added]

278. And further on in the same volume, she elaborated on s. 14 enabling comparisons between ranges of values. She testified as follows at p. 1448, line 21 to p. 1449, line 10:

Q. My question is, isn't it the fact that out of these comparators to be used under Section 14, to be amalgamated to form a new deemed to be comparator?

A. Right.

Q. Is it your understanding that each one of those units must be an equal unit to the complaining group?

A. Okay, there are certainly no words to that effect in 14, but I would read --

Q. I am asking you if it is your understanding?

A. It is my understanding that you would look to jobs in a similar range of value, but not equal.

279. Mr. Sunter provided testimony about the Commission's understanding of s. 14 of the Guidelines in Volume 107, p. 12856, lines 8-21 as follows:

Q. Could we turn to tab 2, which is the equal wages guidelines. You have indicated that you have seen these before.

Sections 14 and 15, to narrow this down -- what information in those sections was relevant for your analysis?

A. Section 14 of the guidelines clearly implies, I think, that I need not -- and I am coming back to my own analysis here -- that I need not differentiate between male occupational groups, when I was trying to find a comparator for a particular female group, that I would consider all groups on the male side as one group for the purposes of this comparison.

280. Mr. Durber gave the Commission's approach to s. 14 of the Guidelines as providing a point of reference to making comparisons in Volume 146 at p. 18081, line 10 to p. 18084, line 1 as follows:

Q. Could you move to section 14 of the Equal Wages Guidelines.

A. Yes. This is a provision which is, I think, sometimes taken rather too literally. It reads:

"Where a comparison is made between the occupational group that filed a complaint alleging a difference in wages and other occupational groups, those other groups are deemed to be one group."

I think the operative word there is "deemed". When I say literally, I really don't quite mean literally because if people read the word "deemed", they would know that we weren't in reality making those other groups one. But sometimes people think that despite the word "deemed", that we are in fact creating one occupational group. We are simply treating the same for purposes of creating a point of reference.

This is rather analogous to subsection 11(2) where you will recall we create a weighted average for purposes of having a reference point. So when we have several groups, two or more, we put them together for purposes of treating all of the observations together.

Q. This is the other groups, meaning?

A. The comparator groups. I would say that is the purpose of 14. It is in the same spirit as 11(2), in my view.

Q. Again, you talked previously that the Commission interprets provisions of the Act and the Guidelines liberally. You have just given one statement with regards to the phrase "deemed".

Is there anything else in this section of the Guidelines which you could assist us on with regards to the treatment of section 14 by the Commission?

A. I think that we will no doubt find at issue here the question of whole groups and whether we must consider groups as a whole. I think we will find in a number of instances throughout these Guidelines that we are talking about comparisons of work. I am sure we will come back to that. So that what I do here is give the term "group" a fairly broad definition; that is, I don't take it simply to mean an occupationally segregated group established by an employer.

Q. How does that relate to section 11(1) of the statute which talks about work of equal value, individuals or employees performing work of equal value?

A. I think that our duty is to examine the value of work, not to conserve existing occupational structures as we are making comparisons.

In other words, I would say that if we find ourselves restricted by an occupational structure of an employer restricted from carrying out the broad comparisons of work required under section 11(1), then my view of it is that we choose to look at work rather than groups, if we find ourselves restricted.

281. Similar to the approach of the Commission, Dr. Weiner focussed on the comparison of work rather than the comparison of groups. For this reason she was not concerned if the male comparator had high values and low values ("heads" and "tails"), from different male-dominated occupational groups. (Exhibit R-18). Neither did it concern her that the resulting male comparator using the female range of value was not an occupational group. She testified in Volume 10 at p. 1459, line 2 to p. 1460, line 8:

Q. They [heads and tails] come from different occupational groups.

How can we then call them a group?

A. What is similar about them, what is relevant to the pay equity exercise, is that they are work done by men and that they fall within a value range of work done by women, and therefore they provide a way for us to develop a standard to do equal pay -- to assess if equal pay for work of equal value is operating.

Q. Now, my question is: Are we changing the rules midstream when we define the complainant occupational group in one way, but then construct a comparator group from bits and pieces, heads and tails, of several occupational groups?

A. I would say no.

Q. We're not.

A. We are, in fact, taking bits and pieces versus a whole --

Q. Yes.

A. -- so in that sense -- but the rules are constructed for a purpose and the purpose is to enable us to assess equal pay for work of equal value. And

unfortunately organizations haven't designed themselves in a way always to make that a simple exercise again.

So we have to look at those principles and then look at what we need to do and make sure what we are doing is consistent with those principles, even if sometimes we seem to be inconsistent. [emphasis added]

282. Dr. Weiner and Mr. Sunter viewed s. 14 as effectively making possible comparisons between female work and male work without the constraint of a group structure. Dr. Weiner's response to Respondent counsel of the effect of s. 14 of the Guidelines is found in Volume 10 at p. 1449, lines 8 - 10:

It is my understanding that you would look to jobs in a similar range of value, but not equal.

D. Validity of Section 14 of the Equal Wages Guidelines

283. Respondent counsel claims that s. 14 of the Guidelines is invalid on the grounds that it is inconsistent with s. 11 of the Act because it allows for the selection of a male comparator beyond the equality concept intended by s. 11 of the Act. Respondent counsel argues that s. 11 of the Act directs the selection of a male comparator consisting of the lowest paid male-dominated occupational group in order to eliminate discrimination based on gender. According to Respondent counsel, the expression "equal value" found in s. 11 of the Act limits a comparison to the lowest paid male-dominated occupational group.

284. According to the Respondent, s. 14 of the Guidelines imposes a requirement to combine male-dominated occupational groups performing work of equal value. Such a requirement, it is argued, purports to extend the purpose of the Act beyond that which is intended, namely, the elimination of discrimination based on gender. The Respondent alleges the Commission has exceeded its power under s. 27 of the Act to prescribe such a requirement which, it argues, goes beyond the purpose and terms of the legislation and is inconsistent with the Act.

285. Respondent counsel contends that s. 14 of the Guidelines cannot operate without s. 15 of the Guidelines because s. 14 only solves the problem of what to do when there is more than one male comparator group. If we were to find s. 14 is valid and that the male comparator will be the deemed group, Respondent counsel contends s. 15 when read with s. 14, provides the rules to measure the wage gap. However, in the Respondent's view, if we find s. 14 invalid and select the lowest paid male-dominated occupational group as the comparator s. 15 can operate independently of s. 14. (Volume 243, p. 32463). Respondent counsel also contends by applying s. 15 of the Guidelines the wage curve of the lowest paid male-dominated occupational group can be calculated to provide the average wage and value of work of the group.

286. The Respondent argues s. 14 of the Guidelines extends the meaning of equality by allowing for comparability on the basis of the Commission's argument of "on average fairness" (see Section III, B) thus extending the principle of equality beyond gender-based discrimination in wages. Evoking the principle of "on average fairness", according to Respondent counsel, is inconsistent with the principle of "equal value" because it calls for something additional involving policy considerations other than discrimination. Respondent counsel makes this point in Volume 243 at p. 32398, line 18 to p. 32399, line 14:

THE CHAIRPERSON: How does it go beyond the purpose of the Act?

> MR. FRIESEN: That the purpose of the Act is to eliminate discriminatory practices and that, the Respondent says, is achieved by adjusting to the lowest paid male comparator. But section 14 of the Guidelines calls for us to adjust not only to the lowest paid male comparator, but up to the average of all comparators performing work of equal value.
>
> So it's a further adjustment, and that involves policy considerations other than discrimination. It strives for on average fairness, in effect.
>
> And in the submission of the Respondent there is a difference between on-average fairness, which may be a very valid policy determination. Parliament may at some point determine women should have wages that achieve on-average fairness. But this pay equity legislation that is before the Tribunal is in Human Rights legislation, which is directed expressly at discrimination and only at discrimination.
>
> So if the purpose of the Act is to eliminate discriminatory practices and the Guideline calls for something additional involving other kinds of policy considerations, then it goes beyond the purpose of the Act.

287. The Commission's argument concerning "on-average fairness" has been described in Section III-B of this decision. In brief the Commission advocates an interpretation of s. 11 of the Act that would provide fairness of opportunity in employment and fairness of result in wages to employees in the female-dominated complainant groups. Essentially the Commission contends employees in these complaints who perform work of equal value to individuals who are performing male-dominated work should have an equal opportunity to receive, on average, the same wages paid to employees in male-dominated groups. The Commission contends support for that interpretation arises from s. 2 of the Act setting out the purpose of the legislation. Section 2 of the Act reads in part:

> 2. The purpose of this Act is to extend the laws in Canada to give effect, within the purview of matters coming within the legislative authority of Parliament, to the principle that every individual should have an equal opportunity with other individuals to make for himself or herself the life that he or she is able and wishes to have, consistent with his or her duties and obligations as a member of society...

288. According to Respondent counsel achieving "on average fairness" is also incompatible with the concept of causation because it not only eliminates a discriminatory practice based on gender but goes further and calls for adjusting wages based on reasons other than gender.

289. Section 27(2) of the Act empowers the Commission to issue guidelines setting out the extent to which and the manner in which, "in the opinion of the Commission", any provision of the Act applies in a particular case. Section 27(2) reads:

> (2) The Commission may, on application or on its own initiative, by order, issue a guideline setting out the extent to which and the manner in which, in the opinion of the Commission, any provision of this Act applies in a particular case or in a class of cases described in the guideline.

290. We have reviewed the history of the Guidelines relating to group complaints pursuant to ss. 12 through 15. Section 14 of the Guidelines is subordinate legislation which is authorized by s. 27(a) of the Act. The question of interpretation of subordinate legislation arose in the Tribunal's

Phase I decision, supra, in reference to s. 9(a) of the Guidelines and to the term "sexual bias". The Tribunal noted the presumption in favour of the validity of regulations authorized by their enabling statute at the time. We referred to Pierre André-Côté in Interpretation of Legislation in Canada, 2nd edition, and his remarks at p. 310 as follows:

Finally it must be pointed out that the regulations are not only deemed to remain intra vires, but also to be formally coherent with the enabling statute.

291. The Alliance submits the Guidelines stand as a proper exercise of the Commission's discretion under s. 27(2) of the Act and are consistent with the Act as a whole, including s. 11 in particular, and thus constitute an appropriate basis for the achievement of pay equity. The Alliance argues the central issue concerning s. 14 of the Guidelines requires an examination of the enabling Act to determine if the Guidelines are valid.

292. The Commission argues for the well established principle of the presumption of coherence governing legislative interpretations. The provisions of a statute are presumed to be coherent and intended to be applied together as part of a functioning whole. The presumption of coherence is applied to both statutes and regulations. It is presumed that regulatory provisions are meant to work together, not only with their own enabling legislation, but also with other Acts and other regulations as well. The governing principle is set out in Driedger on the Construction of Statutes by Ruth Sullivan, 3rd ed., (Toronto: Butterworths, 1994) at p. 176:

> Governing principle. It is presumed that the provisions of legislation are meant to work together, both logically and teleologically, as parts of a functioning whole. The parts are presumed to fit together logically to form a rational, internally consistent framework; and because the framework has a purpose the parts are also presumed to work together dynamically, each contributing something toward accomplishing the intended goal.
>
> The presumption of coherence is also expressed as a presumption against internal conflict. It is presumed that the body of legislation enacted by a legislature does not contain contradictions or inconsistencies, that each provision is capable of operating without coming into conflict with any other. As La Forest J. wrote in Friends of Oldman River Society v. Canada (Minister of Transport):
>
> There is a presumption that the legislature did not intend to make or empower the making of contradictory enactments.
>
> In J.A. MacKeigan v. Royal Comm. (Marshall Inquiry) McLachlin J. wrote:
>
> I start from the fundamental principle of construction that provisions of a statute dealing with the same subject should be read together, where possible, so as to avoid conflict...In this way, the true intention of the Legislature is more likely to be ascertained.

293. Cases submitted by the Respondent raise the question as to whether a particular body exceeded powers granted to it by its enabling legislation in making the regulation in question. These cases illustrate an exercise of excessive powers by regulating authorities relating to the specific subject matter specified in their respective parent statutes.

294. The first of these cases is Utah Construction & Engineering Pty. Ltd. v. Pataky, [1966] A.C. 629 (Privy Council). This case involves an appeal from the Supreme Court of New South

Wales challenging a regulation made pursuant to the Scaffolding and Lifts Act of New South Wales. The respondent had sustained injuries while employed by the appellants in tunnelling operations and had claimed damages on the ground it had failed to comply with the requirements of the regulation. The Supreme Court of New South Wales reversed an earlier decision which had found against the respondent on the grounds the regulation was ultra vires the legislation.

295. The Privy Council allowed the appeal by restoring the initial judgment and finding that the regulation in question had extended the scope or general operation of the enactment and could not be read in conjunction with the empowering provision of the parent legislation. The Privy Council held the ancillary regulation, which imposed an absolute duty of protecting the drive and tunnel in which the employees worked, extended the scope of the subject matter in the parent enactment relating to the manner of carrying out excavation work. The Privy Council found the regulation was not a valid exercise by the government of New South Wales of powers granted by the Act and ultra vires the powers conferred by the general enactment.

296. Another case concerned a decision of the Supreme Court of Canada in Metropolitan Toronto v. Village of Forest Hill, [1957] S.C.R. 569. The issue in that case was whether the Municipality of Metropolitan Toronto was empowered under s. 41 of its charter to pass a bylaw to bring about fluoridation of its water supply. By s. 41 of the Municipality of Metropolitan Toronto Act, the Council was empowered to pass bylaws, inter alia, "to secure to the inhabits of the Metropolitan Area a continued and abundant supply of pure and wholesome water." The Municipality had taken the step of fluoridation for the purpose of promoting the health of the teeth and the elimination of tooth decay amongst the inhabitants of the metropolitan area. The majority decision by Rand J. held the addition of fluoride to the water served a distinct and different purpose than promoting the ordinary use of water as a physical requisite for the body. The Court found the special health purpose of fluoridation was beyond the power of Municipal Council which was to provide a supply of pure and wholesome water. Respondent counsel referred to comments of Cartwright J. who agreed with the majority at p. 580:

> The question is as to the power of the council to enact the impugned by-law, and the answer depends upon the nature of the subject-matter to which it relates...Its purpose and effect are to cause the inhabitants of the metropolitan area, whether or not they wish to do so, to ingest daily small quantities of fluoride, in the expectation which appears to be supported by the evidence that this will render great numbers of them less susceptible to tooth decay. The water supply is made use of as a convenient means of effecting this purpose. In pith and substance the by-law relates not to the provision of a water supply but to the compulsory preventive medication of the inhabitants of the area. In my opinion the words of the statutory provisions on which the appellant relies do not confer upon the council the power to make by-laws in relation to matters of this sort.

297. The Respondent also relied on Ainsley Financial Corp. et al. v. Ontario Securities Commission et al. (1993), 106 D.L.R. (4th) 507 (Ont. Gen. Div.). The proceedings before the court concerned the validity of a policy statement issued by the Ontario Securities Commission (O.S.C.) and its jurisdiction to promulgate policy statements. The O.S.C. had issued a policy statement stipulating that it expected security dealers to comply with a policy which contained detailed and restrictive measures regarding the trading of speculative penny stocks. The Court

held that the O.S.C. lacked the statutory mandate providing it with jurisdiction to issue such a policy. In his decision, Blair J. referred to Pezim v. British Columbia (Superintendent of Brokers) (1992), 96 D.L.R. (4th) 137 (B.C.C.A.) which involved a somewhat analogous situation to Ainsley, supra. Blair J. quoted a passage from Pezim, supra, at p. 527:

Without reaching any decision about whether there is any power in the Commission to inquire into and impose penalties for conduct falling short of what the Commission judges to be a proper standard of conduct for those engaged in the securities business, it is my opinion that where the particular type of conduct that is being considered is conduct that is so closely governed by legislative provisions as is the conduct relating to disclosure of material changes or material facts, the Commission does not have the power to impose different and more exacting standards than those specifically adopted and imposed by the legislature and then to make penal orders for a breach of those standards which is not a breach of the legislative standards...

> That is not to say that higher standards are not desirable. That is a question of careful policy judgment. But they should not be regarded as mandatory where the legislature, in balancing the policy considerations, has specifically chosen not to make them mandatory.

298. Having referred to Ainsley, supra and Pezim, supra, the Respondent concludes as follows in Volume 244 at p. 32625, lines 9-16:

Now, that's what we're saying here, is that some people may consider very desirable to go to on-average fairness. But if the legislature hasn't provided for on-average fairness it's not in the power of the Canadian Human Rights Commission to say, Well, we think pay equity requires on-average fairness when the legislature has really provided for eliminating discrimination and that there is a difference between those. On that premise, we say that the regulation is invalid.

299. Section 27(2) of the Act, which gives the Commission its power to issue guidelines is not restrictive in the sense that it does not specify or limit the scope of the subject matter of the regulations as is found in the cases referred to by the Respondent. The key phrase in s. 27(2) of the Act reads "...the extent to which and the manner in which, in the opinion of the Commission, any provision of this Act applies..." The cases relied on by Respondent counsel do not confer on the subordinate regulatory agency's broad discretionary power found in s. 27(2) of the Act and are distinguishable from the power conferred on the Commission by that section. The issue is not whether the Commission has exceeded its authority under s. 27(2) of the Act. The crucial issue is whether s. 14 of the Guidelines provides a means for implementing the principle of equality and "equal value" which s. 11 of the Act requires.

300. Section 14 of the Guidelines provides little or no guidance to the parties or to the Tribunal in their search for a suitable mechanism for implementing these principles. One is left in a state of uncertainty due to a lack of direction in the wording of s. 14, when addressing the technical difficulties and complexities which must be sorted out in its application. The problem with the phrase "occupational group", for example, is illustrated by the testimony of Dr. Weiner, which we have already referred to, when she was being cross-examined about s. 14. We again refer to Volume 10 at p. 1442, line 7 to p. 1443, line 4:

> A. The word "group" here seems to refer to an occupational group.
>
> Q. Yes.

A. All right, and then in 14, it seems to say that the complaining occupational group must -- that you can never change that. But if there is other occupational groups, so more than one male occupational group against whom the complaint is made, I read Section 14 to say that these occupational groups are deemed to be one group. So, that the boundaries of that group change.

Q. We will get into that, but my question is, in your view, given we don't have a specific notion of the term "group" here, because it is not defined, in your view, is it important to stick with it once we have chosen that notion and not change the definition of "group" as we go along?

A. Consistency always sounds like a good idea in general. Sometimes when you get specific pieces you find out why it's called the "hobgoblin of small lines." [emphasis added]

301. According to Respondent counsel, s. 14 of the Guidelines infringes the so-called "zone of non-discrimination" thereby raising policy considerations other than discrimination. (Volume 243, p. 32479). Simply put if four male-dominated occupational groups receive different wages but perform work of equal value to each other and equal with the female-dominated occupational group are then blended into a single comparator group, we are no longer correcting for discrimination based on gender. Since the differences in wages among the male groups cannot be attributed to gender-discrimination, combining the four male-dominated occupational groups into a "deemed" group would effect differences in wages caused by factors other than discrimination.

302. The goal of s. 11 of the Act is to provide for an effective remedy for wage discrimination. The historical context leading up to the inclusion of s. 11 of the Act in 1979 was a recognition by such agencies as the ILO, the United Nations, the Royal Commission on the Status of Women as well as the general public that women's work was being undervalued and that remedial legislation was necessary.

303. Both Dr. Weiner and Dr. Armstrong testified about pay practices failing to value female work which differs historically from male work, which differentiation continues to this day. Gradually over time, with an increasing number of women in the work force and the changing nature of the tasks to be performed, a more objective and analytical approach to the value of work done by women has occurred. This led to the recognition of "systemic discrimination" by legislators, by the courts and by society in general.

304. In our view, s. 14 of the Guidelines is intended to facilitate how comparisons between male work and female work can be accomplished. It allows for the blending together of the male work. We are also of the opinion, s. 14 of the Guidelines is compatible with s. 11 of the Act. It simply provides a means by which comparisons can be made between male work and female work. It identifies the male values from male-dominated groups which are available for implementing a wage adjustment methodology.

305. We find the reference to "occupational group" refers to the groups which have been designated by the application of s. 13 of the Guidelines as either female-dominated or male-dominated. The term "deemed to be one group" describes how the male comparators will be

treated for purposes of wage adjustment methodology. We further find the reference to "occupational group" does not mean that comparison between male work and female work has to be by whole occupational groups designated by the Respondent's classification system.

306. As we have heard from the pay equity expert, Dr. Weiner, there is a variety of different wage adjustment methodologies which can be used to achieve pay equity, none of which is referred to in s. 14 of the Guidelines. We have determined if the difference in wages is established through a methodology that adheres to the principles of "equal value" and "equality" pursuant to s. 11 of the Act, that is sufficient proof of a prima facie case of discrimination based on gender. We will examine the different methodologies proposed by the parties within that framework.

307. Based on our findings we reject the arguments and submissions of the Respondent concerning the invalidity of s. 14 of the Guidelines.

E. Section 15 of the Equal Wages Guidelines

308. Some guidance is provided in s. 15 of the Guidelines in determining how comparisons are to be made. It refers to direct and indirect comparisons. Section 15 of the Guidelines reads:

> 15(1) Where a complaint alleging a difference in wages between an occupational group and any other occupational group is filed and a direct comparison of the value of work performed and the wages received by employees of the occupational groups cannot be made, for the purposes of section 11 of the Act, the work performed and the wages received by the employees of each occupational group may be compared indirectly.
>
> (2) For the purposes of comparing wages received by employees of the occupational groups referred to in subsection (1), the wage curve of the other occupational group referred to in that subsection shall be used to establish the difference in wages, if any, between the employees of the occupational group on behalf of which the complaint is made and the other occupational group.

309. This case deals with group complaints and each party had acknowledged that direct comparisons between complainants and comparators are not possible in these group complaints. The difficulty with direct comparisons is aptly explained in paragraph 139 at the Commission's written submissions, as follows:

(139) Due to the improbability of every male observation [job evaluation] from an occupational group in a sample or population from the employer's workforce having exactly the same value for their work as that identified for the female work in the employer's establishment, direct comparisons are impossible in most group complaints.

310. An admission by Respondent counsel on that point is found in Volume 239 at p. 31742, line 23 to p. 31743, line 6. After referring to s. 15 of the Guidelines, Respondent counsel submits as follows:

I think that it's not controversial before this Tribunal that we cannot compare the work and wages of occupational groups directly in this case. The work cannot be -- the work and wages, rather, cannot be compared directly. We have that from Mr. Sadler and Mr. Durber and, in my

submission, there is no controversy over that. So, this provision [s. 15 of the Guidelines] says then it may be compared indirectly. [emphasis added]

And further on he states in Volume 239 at p. 31745, lines 7-10 as follows:

> We know that we cannot make direct comparisons in the case before the Tribunal, we must make indirect comparisons. That's the only option open to us.

311. Counsel for the Alliance informed the Tribunal earlier on during the hearing about the necessity to do an indirect comparison. In Volume 249 at p. 33337, line 9 to p. 33338, line 2:

> Whenever you have got something that is more complicated than that, or to put, I suppose, in the positive, in a situation where you have got varying pay plans, varying declassification standards, and you have got jobs that don't line up like that, then you are into indirect comparisons and you are into regression lines.
>
> That is why when we get to the provincial legislation virtually everybody -- everybody goes to a regression system of one sort or another because it is just not possible to make that nice, clean job-to-job comparison that is one method that Dr. Weiner spoke about.
>
> So in my submission, what we are dealing with here clearly is an indirect comparison within the meaning of section 15 and so the wage curve that is contemplated in that section is applicable to this case, and I don't understand anybody to be saying otherwise.

312. The Respondent's interpretation of the meaning of "direct comparison" and "indirect comparison" in subsection 15(1) of the Guidelines is summarized in its "Notes For Oral Submissions of the Respondent". Paragraphs 20 and 21 on p. 6 and paragraphs 22 and 23 on p. 7, which are reproduced here, are illustrative of the circuitous arguments of the Respondent in this respect:

> 20. If the expression "direct comparison" means comparison with a group performing work of equal value, then the expression "indirect comparison" in subsection 15(1) of the Guidelines would mean comparison with a group performing work of unequal value, and that provision would be invalid as being inconsistent with section 11 of the Act. Dr. Weiner may have described this kind of indirect comparison, which is allowed in Ontario, but no party has contended for that interpretation of subsection 15(1) of the Guidelines.
>
> 21. In any event, it is not necessary for the Tribunal to make a determination on this point because subsection 15(1) provides for indirect comparisons only when direct comparisons "cannot be made". In order to hold that "direct comparison...cannot be made", the Tribunal would have to find that there is no male occupational group performing work of equal value. In this case, comparison can be made with a group performing work of equal value for every complainant group.
>
> 22. If the expression "direct comparison" in subsection 15(1) means comparison without use of a wage curve, then the expression "may be compared indirectly" means comparison using a wage curve to represent the wages and value of work of the occupational group which is the comparator. In that event, section 15 is consistent with section 11 of the Act, and has operative effect according to its terms. It is respectfully submitted that this is the interpretation that ought to be adopted by the Tribunal.

> 23. Thus, a correct interpretation of section 15 of the Guidelines and section 11 of the Act leads to the conclusion that, as a matter of law in this case, the wage gap is to be established by comparison with the wage curve of an occupational group performing work of equal value. [emphasis added]

313. Dr. Weiner explained indirect comparison in reference to s. 15 of the Guidelines in Volume 7 at p. 1049. In her opinion, an indirect comparison is one that involves the use of a wage curve (wage line) to determine equal value.

314. Mr. Durber from the Commission was asked to describe the Commission's interpretation of s. 15 of the Guidelines. He addressed s. 15(1) in Volume 146 at p. 18084, lines 2-25:

> Q. Let's move to section 15(1) of the Equal Wages Guidelines.
>
> This is the provision that says where direct comparisons cannot be made.
>
> A. Yes. I think that it is an interesting progression of thought here; that is, from direct comparisons to indirect comparisons.
>
> It is analogous to section 11(1) and (2) under individual complaints where I suggested that under 11(1) we had two individuals, we made direct comparisons. Under 11(2) we could not make a direct comparison but made a comparison based on a weighted average, an indirect comparison.
>
> This is in the group context. It is difficult, actually, to conceive of a direct comparison between groups, but I can give you an example. What this section does is very similar to what 11(2) does. It doesn't use the word weighted average, of course, but it does say you can make indirect comparisons; that is, what you can do is you can create that one point of reference for the females and one point of reference for the males that you have to compare.

And further on he says:

> I would say that without some measure of indirectness, the business of pay equity, except where we have two individuals involved, would be impossible. Without indirect comparisons it might be very difficult for anyone to implement section 11(1) of the Act. [emphasis added]

315. Mr. Durber testified regarding the Commission's views on s. 15(2) in the same volume at p. 18090, line 25 to p. 18092, line 12 as follows:

> Q. Can you continue on with the Commission's view of section 15(2) of the Equal Wages Guidelines?
>
> A. Yes. This subsection of the Guidelines makes reference to a concept which has come before the Panel before; that is, a wage curve or a wage line.
>
> The wage curve is to be used for the comparator. I would read this subsection broadly again. I mentioned my interpretation under section 14 of the term "group". I would view the group as that group of comparators of equal value. So whatever observations one has, whatever that group is, whether it be more than the six draftspersons who I called a group, I wouldn't have to draw a wage line.
>
> The wage line for those 12 draftspersons would be a single point, so I wouldn't have to draw a wage line. But if I had technicians and other jobs thrown in, I might well wish to reduce all of them to a series of points. And when we draw a

> line between those series of points, of course, what we have is a curve. So a wage curve is simply a moving series of points across a range of value.
>
> The only reason for that, again, is to permit comparison. I view this section as enabling comparison through the use of wage curves, whatever they look like.
>
> I don't think there is anything in this subsection that tells us what shape a wage curve is to have, how many of them we are to have. I view this as an injunction that we are to use all of the information we have and create a moving reference point which we are calling a wage curve that is reasonable, that summarizes the information on comparators.

316. Mr. Sunter provided the following understanding of s. 15 of the Guidelines in Volume 107 at p. 12856, line 22 to p. 12857, line 13 as follows:

Section 15, if I may go on here -- and it seemed to be fairly clear from section 11 that the intent of section 11 was to compare work of equal value and that that could not be interpreted to mean that, for every particular female job, you have to find a particular male job of the same value. It seemed to say, and indeed section 15 seems to make clear, that indirect comparisons are acceptable, which I take to mean through the kinds of technique that I have been illustrating for regression analysis, for example, which is an indirect way of making comparisons.

> It was my belief that everything I did, and it is still my belief that all the analyses I did were completely in accordance with section 11 of the Act and sections 14 and 15 of the guidelines.

(i). Direct and Indirect Comparisons

317. According to Dr. Weiner comparisons between male and female jobs may involve either direct or indirect comparisons.

318. Dr. Weiner described direct comparison in the following manner. Points are allocated to jobs evaluated by a job evaluation plan specifically designed for pay equity job evaluation. The points assigned are based on certain criteria similar to those outlined in s. 11 of the Act, i.e., skill, knowledge, responsibility and working conditions. In a direct comparison a male job having the same number of points as a female job is selected for comparison. Dr. Weiner testified male and female jobs assigned the same number of points are considered to be of equal value. The wages of the two jobs are then compared to determine whether they are receiving the same compensation. If a differential exists the female wage is adjusted to the male wage. Dr. Weiner described this type of comparison as a "job-to-job" approach.

319. Dr. Weiner testified in indirect comparisons pay equity is achieved for female jobs based on their value relative to male jobs regardless of whether there is an actual male job of a particular point value comparable to a female job. Comparisons are accomplished through the use of a "wage line". According to her wage lines are used in conventional compensation systems. Dr. Weiner explained that in indirect comparisons the wage line is treated as the male wage line and female jobs at a particular point value are then compared to the male line.

320. Dr. Weiner testified in pay equity wage adjustment methodology a wage line is drawn to represent a "pattern" of male jobs. In that way the pattern of male jobs is captured by the wage line.

321. A "wage line" is also called a "pay line", a "pay term line" or a "policy line". According to Dr. Weiner the line is called a "pay line" because it provides information about salary and value and the relationship between them. Generally as job values rise salaries also rise and the line tends to slope upward. For this reason it is also called a "trend line" to express an upward sloping trend. Dr. Weiner said the wage line approach has been used in some of our Provincial jurisdictions including Newfoundland, New Brunswick, Prince Edward Island and Manitoba.

322. Dr. Weiner explained that in statistical terms the line is called the "regression line" or "line of least squares". Through a statistical technique called regression analysis the line is placed such that the total squared distance between all the points in the line is minimized. Regression analysis produces a mathematical equation which expresses wages as a function of value. The regression line can be illustrated by way of a graph with intercepting horizontal and vertical lines. The horizontal line (the x axis) represents job value and the vertical line (the y axis) represents wages. Male jobs are plotted on the graph using job value and wages. According to Dr. Weiner a wage line is drawn to capture the employer's pay policy for the male jobs. In the statistical process a computer is used to summarize the information and draws a line using the formula that best fits the particular set of male job data plotted on the graph.

323. The pay equity and statistical experts testified that regression analysis can produce different kinds of wage lines for the male data. The line can be segmented, composite, straight, quadratic (curved), with bends or "dog-legs", stepped or any combination of these various options. There are sophisticated statistical techniques to measure the quality and reliability of the line.

324. Dr. Weiner testified a wage line is an averaging process because it recognizes jobs at lower and higher values and therefore, by definition, some jobs will be below the regression line and some jobs above the regression line.

325. She testified before the advent of pay equity wage lines were used by organizations to identify their policy as between value and wages. In the following excerpt from her testimony found in Volume 7 at p. 1020, line 19 to p. 1021, line 16, she describes the unique aspect of using wage lines in the context of pay equity:

> A. These charts all use the very same placement of the male jobs and the female jobs. Again we've used "M" to denote male jobs and "F" to denote female jobs.
>
> With this methodology you use the male jobs to draw the male wage line. This aspect of using wage lines is unique to pay equity, otherwise people tended to draw wage lines looking at all the jobs. But the methodology adapts itself beautifully into being able to identify if there are any different patterns of relationship between value and salary for female versus male jobs.
>
> THE CHAIRPERSON: Excuse me, what did you say was unique?
>
> MS. WEINER: It's this idea of drawing wage lines with the just the male jobs and doing something like a wage line for female jobs. It's taking that existing methodology and saying, well, if we look at the wage line of a male job and a female job we will have a sense of having any inequities. So it's an existing methodology applied to the problem.

326. The rationale for adjusting wages using a male line provides a methodology for comparison in situations where there is no male job of equal value to the female job, (i.e. direct comparisons). According to Dr. Weiner, the line tells what the male jobs at the same value of the female jobs should be paid to be consistent with other male jobs. She testified in Volume 106 at p. 893, lines 1-11 as follows:

Indirect comparison is a means of assessing any pay equity adjustment due to female jobs, based on their value relative to the compensation for male jobs based on their value, regardless of whether there is an actual male job of a particular value or not. What we will see when we use wage lines is that you can identify how much a particular male job at 100 points would or should be paid, regardless of whether there is in fact a male job of 100 points that exists in this organization.

Then in Volume 7 at p. 1023, lines 13-25, she stated:

So when you draw the one line, the male wage line, any female job is brought up to it. One of the things I kind of referred to yesterday, we can now see here is a female job that has no male job of equal value, but it can easily go to the wage line. There is a stretch of wage line covering that value, even though there's no male job, so we do the same thing with this female job running to the wage line as we do with all the others. The fact that there is no particular male job there is irrelevant. We know what the male job should be paid, given that value, to be consistent with other male jobs.

327. Dr. Weiner testified to eliminate systemic discrimination in an employer's pay system, different wage line approaches are used to achieve pay equity. She discussed both the Commission's level-to-segment approach and the Alliance's level-to-composite approach as common techniques for achieving pay equity.

328. Dr. Weiner described for the Tribunal the difficulty of finding appropriate male comparators of the same value as the female jobs when dealing with large group complaints. The problems are amplified because comparisons are based on subjective judgements and one has to grapple with the question of whether jobs at 100 points differ significantly from jobs at 110 points. There may be a variety of wages paid for male work in a range of values which may not have points that are of equal point value to the female work in issue. According to Dr. Weiner the methodology of drawing regression lines has been adapted to identify whether or not there is a different pattern of relationships between value and salary as between female jobs compared to male jobs. (Volume 7, p. 1021).

329. Mr. Sunter testified he was required to do indirect comparisons because the data from the JUMI Study did not have male points for each of the female points which would enable him to make a point-to-point comparison. By the application of regression analysis Mr. Sunter was able to draw separate segmented lines for all the male scores that fell within the range of values for each female level. Thus he had the ability to do a comparison between the female and male work and to identify the existence of a wage gap. Mr. Sunter explained this approach in Volume 108 at p. 13012, line 8 to p. 13014, line 22 as follows:

> THE WITNESS: Let me step back a little. What I would like to do, if I had the data and if the data were available, would be to have a set of male wages for each of these female points and corresponding to each female point I would have a set

of male wages. Let's say, for this point here I would have a set of male observations at the same value, and then I would take the average of their wages.

That is not possible because we don't have such a set of points. But, if that were the case, then I would have a very simple estimate of the wage gap. All I would do would be to take for each point the distance from the female wage to the average of the corresponding male wages and then I would average those distances. That would be a simple estimate within the descriptive class of applications, and there would be no argument about it. No model would be involved --

THE CHAIRPERSON: You wouldn't need a regression line.

THE WITNESS: You wouldn't need a regression line.

THE CHAIRPERSON: You would just be going point to point.

THE WITNESS: Just point to point. It would be a straightforward descriptive application.

Then I would say that is clearly within the class of descriptive application of statistics, and it is what it is: it is the best available estimate of the wage gap.

Unfortunately, I don't have such data. Although I can get very close to it, I cannot get all the way to it. The best I can do is to draw this little segment regression that you see here on HR-204 and calculate average distances to that regression. That is as close as I can get to the purely descriptive application.

THE CHAIRPERSON: So what you were saying earlier, when you were saying that from a statistical perspective that is the best model, if you don't have male points for each one of those female points, the next best thing is to draw a regression line between the two segments. Is that what you are saying?

THE WITNESS: Yes. I have brought it down to as local a level as the data will allow me to do.

When we look at the data, because we sometimes have very small sample sizes within a particular level, you will see that this procedure, which is in principle, to me, the best procedure, will lead us to some anomalies in the results. If you just apply this procedure blindly, then you would end up with some funny-looking wage distributions, as we will see. While it is, in principle, the best procedure in my mind, we will have to take some notice of the sample sizes available for each of the levels. If the sample size is very small, the Method 3 estimate may tend to have large variations, so we will end up with some peculiar results which we will have to adjust somehow.

330. Mr. Sunter took a regression line approach because he found direct values could not be compared. He employed the statistical tool of identifying patterns of wage treatment for male work by drawing a wage line or wage curve for what he considered was relevant male data.

331. In Dr. Weiner's experience there is no hard and fast rule on how to achieve pay equity or whether one methodology can be considered superior to another. According to Dr. Weiner

provincial pay equity legislation enacted for purposes of pay equity provides samples of different approaches to achieving pay equity. These include both direct and indirect.

332. Dr. Weiner canvassed different approaches to achieving pay equity. (Exhibit HR-6). She discussed the job-to-job, the job-to-line, the level-to-line and the line-to-line approaches and the advantages and disadvantages of each. She described the level-to-line (the Commission's approach) as a sub-aspect of the job-to-line. Dr. Weiner succinctly captures the difficulty of finding absolute equality using any of these approaches in Volume 7 at p. 1037, lines 5-8:

> Equality is defined in some parameters, but you can always see some things which are out of whack on another scale, but the other methodology has the opposite result.

333. Dr. Weiner rated the wage line approach superior to the job-to-job approach. A difficulty she saw with the job-to-job approach is that it disregards relevant data about male jobs, resulting in a disregard for internal equity, possibly leading to anomalous results. Since the job-to-job approach ignores male data one is unable to determine whether the female job is underpaid because it is not possible to compare it to a male job of equal value. Thus, the purpose of pay equity is defeated.

334. Dr. Weiner testified the choice of a wage adjustment methodology depends upon the results the parties hope to achieve. She commented as follows in Volume 8 at p. 1105, lines 8 - 14, in the context of choosing between a job-to-line or a line-to-line approach:

> So, it is really more of a methodology consideration. If, for example, the female jobs have an established relationship to each other, historical relationships, and an organization felt that it would be disruptive for whatever reasons to change those, then the line-to-line approach is the obvious one to use.

335. Dr. Weiner further testified the significance of ignoring or discarding male data is to ignore what policy an employer has adopted for its male jobs of a particular value. As she explained the principle of equal pay for work of equal value is designed to ensure that the same policy the employer uses for its male jobs is applied as well to female jobs. If male data is being discarded then it is not accomplishing the principle of equal pay for work of equal value. The wage line approach is therefore more advantageous than the job-to-job approach because it is in this sense that the wage line captures what policy prevails in the organization and how male jobs of a certain value have been treated, i.e., "the policy line".

336. Dr. Weiner preferred a segmented line to a composite line for comparison. She considers the information provided from a segmented line more relevant to the question of how an employer is treating male jobs in a particular value range. Dr. Weiner felt more comfortable with the segmented line rather than the composite line as a means of achieving pay equity. She explained her preference for the segmented line in Volume 8 at p. 1113, lines 9 - 21:

> I think it uses [the] male jobs that are most relevant. It [the segmented line] looks at the organization's pay practices and policies for male jobs within a range of value. And there may be differences in how certain male occupations were

> treated. Those may have other problems, but I do not think they are so relevant to this issue.
>
> So that, if you looked at unskilled female jobs, you could compare those to unskilled male jobs and you would have achieved fairness without having to compare unskilled female jobs to the policy, say, for management jobs.

F. Interpretation of Section 15 of the Equal Wages Guidelines

337. Section 15 of the Guidelines, in the context of group complaints, provides a mechanism for measuring the work performed and the wages received by employees where a direct comparison of the work performed and the wages received cannot be made.

338. We find s. 15(1) of the Guidelines contemplates indirect comparisons for group complaints. As described by Dr. Weiner a direct comparison is a comparison of jobs. It may be job to job, as in an individual comparison or it could also be a comparison between more than one job. We note a direct comparison involving many different jobs was done in the HS/GS case. (see Section I, B, Paragraph 10). We find s. 15(1) is clear that the focus for comparison is on "work". Support for this finding comes from the wording itself which reads in part:

> ...for the purposes of section 11 of the Act, the work performed and the wages received by the employees of each occupational group may be compared indirectly. [emphasis added]

339. In the event a direct comparison cannot be made, s. 15(1) of the Guidelines authorizes indirect comparisons. Indirect comparisons involve the use of a wage curve as a means of making the comparison. Both direct and indirect comparisons must compare work of equal value to comply with s. 11 of the Act.

340. Section 15(2) of the Guidelines provides for indirect comparisons by the use of a wage curve. Both the pay equity and the statistical experts who testified understood the meaning of "wage curve", as found in s. 15(2) of the Guidelines, to refer to a wage line. Each of the methodologies presented by the parties uses a wage line for male comparators.

341. Commission counsel writes at paragraph 141 of her written submissions:

> (141) The combining of all available data from male work, which is in the equivalent value range for the female work paid a particular wage, facilitates the conversion of indirect comparisons into direct comparison. Short of having male points for each of the female points and being able to make a point-to-point comparison, the closest thing to a purely descriptive application is to use the regression line for a segment corresponding to the female level range.

342. We disagree with Commission counsel's characterization of the Guidelines as facilitating the conversion of indirect comparisons into direct comparisons. Indirect and direct comparisons are two separate approaches and, we believe, do not transform one into the other.

343. We further find the words "occupational group" used in s. 15 of the Guidelines are intended in the same manner and for the same purpose as that which arises under s. 14 of the Guidelines

and refers to groups designated by the application of s. 13 of the Guidelines as either female-dominated or male-dominated.

344. Section 11 of the Act is aimed at equalizing wage rates between male and female work. The Act is silent on how the equalization of wage rates is to be achieved. We find the Guidelines, ss. 12 through 15, provide some instruction about how to do comparisons in large group complaints. More specifically s. 15 of the Guidelines facilitates the use of wage lines for indirect comparisons, when direct comparisons cannot be done, in a group complaint. The Guidelines do not specify how the line should be drawn. According to the statistical evidence the line can take many shapes.

345. The group complaints before us, by their nature and complexity, involve the use of indirect comparisons. This is supported by the parties' own submissions. The three methodologies that have been advanced for our consideration all use wage lines for purposes of comparisons. The legislative authority found in s. 15 of the Guidelines clearly provides for a wage line for purposes of comparison.

346. We will now examine which methodology best meets the objectives of s. 11 of the Act.

VIII. SELECTION OF WAGE ADJUSTMENT METHODOLOGY

A. Choice of Methodology

347. The Commission submits the use of the female range of values that identifies the scores from the male sample within the minimum and maximum scores of a female level or sub-group makes the best use of the data relevant to the comparison. The Commission contends if the male data is within the same range of values as the female work "it is arguably" of equal value to the work performed by the individuals in the female salary level for which a comparison is sought. (see Commission's written submissions at p. 53). According to the Commission the level-to-segment methodology identifies the wage gap by comparing the pattern of pay for male work to the pattern of pay for female work within the same range of points.

348. The wage curve is intended to represent the average wages and value of work of employees in the comparator group. Each of the parties' wage adjustment methodologies averages the wage and the value of the work of employees in the respective comparator groups. The Respondent's methodology is the only one which averages the wage and value of work of employees in the complainant group as a whole. In the case of the Commission and the Alliance the reference point of the female group is either the level within the complainant female-dominated occupational group or the sub-group if there is no level.

349. The Alliance advocates the composite line which uses all the male data from the JUMI Study and ensures overall consistency. This is because all female jobs of the same value, regardless of classification, will be paid the same rate of pay following adjustment.

350. We note Mr. Sunter's rejection of the composite line was not based solely on statistical considerations. He expressed his considerations to Alliance counsel in Volume 120 at p. 14545, line 13 to p. 14547, line 2 as follows:

> A. For the purposes of the calculation of the overall wage gap into actual dollar terms, yes, there was one other consideration which I have not gone into here, and that has to do with whether the Willis evaluation scheme is a suitable basis for making comparisons in a longitudinal sense.
>
> Q. What is that?
>
> A. I mean whether you can use it as a basis for, really, deciding that such and such -- forgetting about gender differences here, that a company president really ought to be getting ten times more than a secretary, or whatever.
>
> Now, I don't want to express an opinion on whether it is useful for that purpose or not, I merely point out that that kind of implicit consideration is involved in using a composite line. you are accepting the validity of the Willis evaluation scheme in a sense that you are not doing so when you make very local comparisons. So I might say that it is fine over short ranges as a basis of comparison, but I am not convinced, nor need I be convinced in my methodology, that it is suitable right across the board.
>
> What I am trying to say is this: the composite line involves not merely adjustments for gender, say, in this range, in this range, in this range, and I am suggesting short segments here. It also has an implicit adjustment of the relationship of different levels right across the board, and that is not, it seemed to me, what this case is all about. And it is not, it seemed to me, what my work was involved with.
>
> I am not sure that I have made that clear, but it's a little more complicated than this question of local inadequacies. It has something to do with your understanding of what this evaluation thing is all about. [emphasis added]

351. Mr. Sunter's reasons for selecting the level-to-segment approach over the composite line approach are further clarified in Volume 120 at p. 14548, line 3 to p. 14554, line 9:

Q. And you are having to decide whether to employ a single line or a series -- and I mean over one hundred (100) -- of segmented lines. Mr. Ranger says that I'm wrong, it's seventy-four (74) segmented lines. Apart from the concerns about local inadequacies, which are things that we will be able to find out, because we have the data and we will look at it in more detail, are you telling me that your understanding of the Willis plan was another consideration for moving to a segmented-line approach?

> A. It was an underlying consideration, yes.
>
> Q. I'm sorry, but I am going to ask you to restate that, because I didn't quite understand it.
>
> A. You mean that whole long speech that I just gave?
>
> Q. Right.
>
> A. I am not sure I can restate it exactly.

Q. Before you do that, you will agree with me that with a composite-line approach you are still comparing female jobs point-rated at two hundred (200) to male jobs rated at two hundred (200), and the only difference is that the wage gap is calculated at the point of intersection on the composite line, as opposed to one of the seventy-four (74) segments. Right?

A. Yes.

Q. You are not comparing with a composite-line approach a female job at two hundred (200) points with a male job at three hundred (300) points.

A. No. What I am saying is this. What I am saying is, if I can restate it -- and I think I can restate it much more simply -- that is, in my view, you can use the Willis scheme for comparing the compensation of jobs of about the same value; in the same value range. I have no problem with that. In the short ranges of the job values you may validly use the Willis scheme to compare female wages with male wages. I have no problem with that. That is what you are doing when you take these segments.

Within the whole pool, if you like, or even within the females considered separately and the males considered separately, it is not so clear that you can use the Willis scheme to judge the equity of the relative amounts of pay being paid for people of two hundred (200) points and four hundred (400) points, let's say. that involves different kinds of considerations. But that assumption, that you can validly use it for that purpose, is implicit, it seems to me, in using a composite-line approach.

Q. Would you agree with me that the best person to ask that question of would be the expert in the establishment and operation of the plan, namely, Mr. Willis?

A. No, I would not agree with that.

Q. Why wouldn't you agree with that?

A. Mr. Willis, like I am, is not infallible. As to who has the greater degree of infallibility, you are asking me to make a judgement here, and I don't know.

Q. The reason I am asking you that is that I sense from your answer that the expertise that is required to reach the conclusion that you've reached is an understanding of the plan, the mechanics of the plan and how it's structured. That is essential for the answer that you just gave me, and I'm going to suggest to you that, as between you and Mr. Willis, Mr. Willis is a better person to ask in the mechanics, the application and administration of his plan.

A. You may suggest that if you wish, but you can't, necessarily, expect me to agree with it, and I don't agree with it.

Q. Are you suggesting something to the contrary, Mr. Sunter?

A. No, I am merely saying I'm not going to agree with you on that statement.

Let me come back at it another way, if you like. You may use, it seemed to me in thinking about this, the Willis scheme or any other similar scheme. There is another one called the Hays System, I think. There are a number of these job evaluation schemes around.

There are two contexts, it seems to me, in which people use them. One is, you might think of yourself as an employee who says, "I am interested in examining the pay structure within my organization, so I am going to evaluate the jobs and use it in some way, not necessarily publish it, but use it for my own informational purposes in deciding what kind of pay increments I will have in my organization." When you do that you are looking right across the board.

You can use it in that context. Whether the Willis scheme is good for that or not, I don't know, and it seems to me that I don't have to concern myself with that. I would prefer to avoid that whole problem.

But the other context in which you may use it is in this context, or a similar context, in which I am looking at the question of equity between this group and that group, between males and females, between whatever other dichotomies you can think of for people who are working in the same value ranges. I have no problem with that. It doesn't involve the consideration of whether it is good right across the board.

So, what Mr. Willis has to say about its being good across the board, for that kind of purpose or not, it seems to me is irrelevant to what I am doing. I don't want to set out to disagree with Mr. Willis, or to challenge his area of expertise, I'm just saying that it seems to me that it's irrelevant to what I am doing.

Q. But you are aware that what the Willis plan attempts to do is employ a methodology to rate jobs on the basis of their intrinsic merit and without regard for such irrelevant considerations as the sex of the incumbent. That's what it purports to do.

A. No, I don't think that is what it does. That is certainly not the way I regard it.

There is no way -- in principle, there is no way of assessing the intrinsic worth of a job. no way. You can only do it by comparative methods, or so it seems to me. I am giving you my views of this. You can validly compare people in the same value range with respect to their compensation, but I don't believe that there is any way, any system, that can tell you that this person is intrinsically worth four times more than that person; that a manager is worth four times a clerk. There is no system capable of doing that.

Q. In giving me that statement are you drawing upon your expertise as a statistician, or some other expertise?

A. I am drawing on my status as a logical kind of person, thinking about the problems of the real world. No, I have no particular expertise for making that statement.

I must say that I do have a little problem with your -- I mean, a statistician or any other scientist does not suspend the rational side of his being in favour of some bag of tricks that you pull out.

352. The Willis Plan is designed for pay equity job evaluation. The parties have agreed the Willis Plan, a point factor plan, is an appropriate job evaluation tool for the job evaluations which form the basis of this adjudication. Mr. Willis described differences between traditional job evaluation and pay equity job evaluation. Traditional job evaluation concerns job

relationships primarily at the management level. According to Mr. Willis, pay equity requires comparisons of dissimilar jobs at all levels within an organization. Neither the JUMI Study nor the complaints before the Tribunal are concerned with correcting compensation inequities from the Employer's classification system and/or problems of internal consistency. The objective of the pay equity study was to remedy systemic discrimination, if found to exist, in the Federal Public Service. We believe the methodology of choice should be the one that best meets the objectives of s. 11 of the Act, which is to eliminate systemic discrimination.

353. The Respondent's lowest paid whole male-dominated occupational group comparator lacks any endorsement or support by any of the pay equity or statistical experts who appeared before the Tribunal. The Respondent led no evidence to support its methodology. One of the essential requirements of the Respondent's methodology, that comparisons be limited to the whole occupational group, is not required by the Act or the Guidelines. In our opinion, if s. 14 of the Guidelines was intended to require comparisons of work by the lowest paid male-dominated occupational group, the phrase "those groups are deemed to be one group" found in this section is meaningless.

354. The Respondent's methodology has serious statistical limitations as conceded by Respondent counsel in oral argument. (see Section IV, C(ii), Paragraph 141).

355. Both statisticians, Mr. Sunter and Dr. Shillington, rejected the Respondent's whole group approach which was first adopted by the Employer in calculating the equalization payments following the breakdown of the JUMI Study in early 1990, (Exhibit HR-185). Dr. Shillington first became privy to the whole group comparator as a member of the Technical Review Committee. Without informing other members of the JUMI Study, this Committee was established in the autumn of 1989 by the Respondent to review wage adjustment methodology pertaining to the JUMI Study. Several individuals were retained by the Respondent to assist it in the refinement of its approach to wage adjustment methodology . Dr. Shillington attended seven meetings of the Technical Review Committee. He was sufficiently concerned about the impact of using whole male group comparators and sample size that he wrote a paper for the Technical Review Committee laying out mathematical calculations relative to his concerns. Dr. Shillington also prepared graphs of point spreads. The graphs used data from the JUMI Study and showed female jobs at particular point value spreads were paid differently than male jobs at the same point value spreads.

356. Dr. Shillington's objection to the whole occupational group methodology was communicated to the Treasury Board's representative on the Technical Review Committee, Mr. Frederick Borgatta. As explained by Dr. Shillington one of the impacts of the whole groups comparisons is the reduction in the sample size. Rather than using all male values, only those values which come through a particular selection criteria of whole male groups are used.

357. As a data analyst Dr. Shillington prefers to retain information that he considers useful for his analysis rather than to discard it. He found the whole group methodology discarded relevant male data. Dr. Shillington testified about this concern on more than one occasion. The following passage in Volume 131 at p. 16086, line 4 to 16089, line 14 reflects his concern:

What I would like to ask you is what were the analyses or issues that you dealt with most, according to your recollection, during the Technical Review Committee?

A. I went back to my journals which I had from that period of time where I took notes during meetings -- it is embarrassing the extent to which there is just a word here and there -- and my recollection.

The issues which were dominant in my mind was the question of excluding males from the comparators on the basis of groups and the fact that Mr. Borgatta and I discussed this from opposite viewpoints several times in the Technical Review Committee, and the implication that that would have on the sample sizes re regression, and if you have reduced sample sizes you are going to get more non-significant results, and then the possible interpretation on non-significant results, which is why I took it upon myself to write a paper that would help people interpret non-significant results.

Q. Were you advised by either Mr. Borgatta or someone from the Treasury Board at this time why they wanted to use whole male groups as comparators in their analysis?

A. The counter-argument -- sometimes is difficult to be fair to the counter-argument you have heard, but I will do my best to be fair to it -- was that the basis of the comparisons had to be groups.

Q. Why?

A. That flowed from the statute. That was, I think, the ultimate defence. I would argue that a potential male comparator was useful information in the regression regardless of what group that male happened to belong to.

Q. This is your argument now, not Treasury Board's?

A. Yes. My argument would be, if we can create an example: Suppose we are interested in knowing we have a female group who are, let's say, paid values near 200. The fundamental question that everybody would agree to is: What are males paid whose jobs are valued at 200?

If we have some male questionnaires who, by chance, are valued at 200, I think that is information you would put in the regression, regardless of what group they belong to.

The counter-argument would be ---

Q. The counter-argument of Treasury Board now?

A. Treasury Board as presented by Mr. Borgatta would be that they are only comparable if that male belongs to a group that, as a whole, has the same values as the female groups.

I would argue that if the Willis scale has sufficient reliability and validity for comparing males to females who are in different job classifications, then it is equally valid for saying this male who occupies a job valued at 200 is a useful comparator to this female group, regardless of what group that male belongs to and regardless of the values, the scores, that other males in that same group have.

I argued that long and hard. Eventually I think the final defence was "this is what the statute required", in which case I would say 'The statute may require that, but it doesn't make sense to me."

Q. What were you basing your "arguments" on in this discussion?

A. What made sense to me from strictly a data analysis point of view, again using the same example: Here is a male questionnaire and assuming the questionnaire was well evaluated and everything, I don't need to know the scores of other people who belong to that group to know whether or not that is useful information to me. It is as simple as can be.

As a data analyst, you are cautious about ignoring information. You don't ignore information or discard information without a good reason.

358. Dr. Weiner, Mr. Sunter and Dr. Shillington expressed a preference for a methodology which seeks the inclusion of relevant male data rather than its exclusion. We note the level-to-segment methodology, like the level-to-composite, utilizes all the male data generated in the JUMI Study but in a different manner.

359. Mr. Sunter also disagreed with the Treasury Board's interpretation of s. 11 of the Act as summarized in its methodology paper, (Exhibit HR-185). Mr. Sunter did not believe he was restricted to making comparisons between whole occupational groups. He described his approach of level-to-segment as being "blind to the particular male group occupational designation. I never even looked at it." (Volume 110, p. 13297). He expresses these views more fully in Volume 110 at p. 13295, line 22 to p. 13297, line 1:

A. Well, indirect comparison is comparison by way of, say, regression analysis, for example. And the only requirement for that comparison is that the regression analyses are calculated over the same range of job values. So in that sense the two sets of job values are reasonably comparable.

My background reading that I did when I first encountered this and my own interpretation of section 11 was that it was precisely the intent of section 11 and the Human Rights Act to move away from the previous concept of equal work to equal pay to the concept of -- sorry, equal pay for equal work -- to move to the concept of pay for work of equal value. And in order to make that meaningful, you would have to lay out indirect comparisons of the kind that I have done and that indeed Treasury Board has done.

So there was no requirement, it seemed to me, inherent in the Act or in any reasonable interpretation of the Act -- I am not a lawyer, of course; I am a statistician. But I had to proceed on the basis of the best interpretation I could make. There seemed to be no requirement that I restrict comparisons to whole groups.

I am in the nature of the complaint restricted to a whole female group on the one hand but nothing in the legislation seemed to me to require that I take whole male occupational groups on the other hand.

360. Dr. Shillington did not altogether reject a methodology that measures central tendency to determine comparators. However he emphasized that the right question needs to be addressed in

a group process. In his view it is not simply a matter of testing for medians or means. He testified in Volume 140 at p. 17306, lines 4 to 20, as follows:

Q. Let me understand a bit better. Is your contention that one should not use a test of central tendencies to determine comparators? Is that your basic contention?

> A. No. I think I said it as clear as I could in response to one question from the Chair about setting criteria.
>
> I would approach the question in the following fashion. If you must use males via the group process, a group is in or out, you would say that we want to include the male groups that have enough overlap in value whose values are in some collective way similar enough to the females that we would be comfortable saying yes, they are "comparable", that they inform the analysis.
>
> It is not whether or not the medians or the means are identical.

We find these concerns expressed by Dr. Shillington were not addressed by the Respondent in support of its methodology.

361. The idea of searching for a methodology of mathematical exactness between the value of male and female work, in view of the size and extent of the JUMI data under consideration, is in our view patently unobtainable. Exact measures of comparison may not completely eliminate systemic discrimination and achieve pay equity. The Ontario Court of Appeal was reluctant to thus limit the provisions of the Ontario Pay Equity Act. (see Ontario Nurses' Assn. v. Ontario (Pay Equity Hearings Tribunal) (1995), 23 O.R. (3d) 43 (Ont. C.A.)). The Court held in that case that proof of the same wages does not prevent the pay equity tribunal from furthering its enquiry as to whether pay equity is achieved. We refer to the following comments by Abella J.A. at p. 56:

> Section 6, which contains ten subsections, does no more than set out the minimal requirement for the achievement of pay equity, namely, that the job rate for the female job class be at least equal to the rate paid for a comparable male job class. This does not necessarily mean that the statute's objective of redressing systemic gender discrimination in compensation for work is satisfied every time the salaries are the same. It is far from a linear determination. Proof of the same wages does not foreclose further inquiry. It involves, instead, a kaleidoscopic interplay between a variety of factors and statutory provisions. Pay parity is not necessarily pay equity.
>
> Section 6 cannot be read in isolation from the rest of the Act, particularly since the whole purpose of the Act is to achieve pay equity, a purpose whose adjudicative interpretation, implementation and enforcement are the exclusive responsibility of the Tribunal. Far from limiting the Tribunal's jurisdiction, s. 6(1) is only one of the many provisions outlining how and when pay equity is achieved. [emphasis added]

362. The Respondent contends the level-to-composite methodology compares groups of unequal value. It argues the average point values of the composite line is higher than the average point values of most of the female-dominated occupational groups and levels which are represented by the Alliance.

363. According to the Respondent the inclusion of all the male data influences the shape of the composite line resulting in an overstated estimate of the pay equity wage gap. The Respondent contends the central tendency of the composite comparator is significantly different from the central tendency of the complainant groups or levels thus resulting in unequal values. This, according to the Respondent, brings into play a question of different distribution of values.

364. However the evidence indicates to Dr. Shillington and Mr. Sunter that the Employer's emphasis on differences in distributions of value, which gives rise to different central tendencies (Exhibits R-126 and R-127), between the male-dominated occupational groups on the one hand and between the male-dominated occupational groups and the female-dominated occupational group on the other, addresses the wrong question for comparison of value. The real question is, according to Dr. Shillington and Mr. Sunter, whether at a given point value, the female work and the male work are paid the same. That is what the level-to-segment methodology and the level-to-composite methodology addresses. Dr. Shillington testified as follows in Volume 140 at p. 17292, line 20 to p. 17296, line 12:

> What is the impact, if any, or implications, if any, if we have this kind of evidence on wage adjustment methodology if you are looking at this methodology?
>
> THE WITNESS: I think the issue -- I have had no problem agreeing that for many of these situations the female and the male comparators did not have the same distribution. Indeed, Mr. Sunter's approach using maximum and minimums would not ensure that in any way. It is certainly clear that the Treasury Board approach using Wilcoxon tests would attempt, through the Wilcoxon test, to ensure that the male comparators had the same distribution of values as the female.
>
> The question is, do you need to have the same distribution of values to answer the wage adjustment question which is: Do the males have the same salaries as females at the same job value?
>
> I think that is the crux of the issue, and I assume eventually that will be debated.
>
> My clear opinion is that you do not need to have the same distribution of wage values to answer the wage adjustment question -- the wage values -- I am sorry. You do not have to have the same distribution of Willis points between the males and the females to address the question about whether or not females are being paid comparably to males at the same point values.
>
> THE CHAIRPERSON: When you say you don't have the same distribution of Willis points, do you mean that therefore they can come from different populations ---
>
> THE WITNESS: Yes.
>
> THE CHAIRPERSON: -- and still be used?
>
> THE WITNESS: HR-228 was my scattergram of all the points, the composite graph of male and female points. That graph makes it quite clear that the males in the federal civil service do not have the same point value of females in the federal

civil service. But you can still look at that graph and use that graph to ask the question: At various point values are females and males paid the same?

I believe I at one point indicated you could look at the graph in terms of columns and in each column ask the question: Are males paid the same as females in those jobs ranges?

So I do not think it is a requirement for the regression analysis that the distribution of the Willis scores be the same between the females and the males. You can do the regression analysis without that and the regression will handle the difference in the distribution of the point values. The regression will address the following question: At each point value what are males paid and what are females paid?

The fact that the two, the male and the female groups, do not have the same distribution of Willis points is irrelevant. It would be nice, actually. But I wouldn't sacrifice two-thirds or three-quarters of my sample size to ensure that.

So the questions I was being asked in a series of questions was: Are the distributions the same? If you believe that you can only do the comparison between groups that have the same distribution, then that is a germane point. But certainly from a statistical point of view, you do not need to have the same distribution of Willis scores to address the wage adjustment question. You might from a legal point of view, but not from a statistical point of view.

I think HR-228, the overall graph, makes it quite clear to me that these distributions are clearly different. That doesn't undermine my ability to look at that and do an overall comparison of male and female jobs, and the same logic applies in each one of these graphs: yes, the distributions are different. I didn't say it when being asked, but so what.

THE CHAIRPERSON: Thank you.

MR. CHABURSKY:

Q. Dr. Shillington, just to be clear, the opinion you just gave is based on your expertise as a statistician.

A. Yes.

Q. It really considers consideration of data analysis?

A. Yes.

[emphasis added]

Dr. Shillington further testified that distribution of values is a factor to be cautious about. However, as a general rule, as long as the distribution of the male values covers the female range of interest, he is comfortable. This kind of distribution of value has been illustrated in the samples used for the level-to-segment comparisons for the complainant groups. There are no gaps in the male values. Mr. Sunter expressed his view that with different distributions of values, regressions should be interpreted with some caution. That is one of the reasons he moved to a level-to-segment approach.

365. For all these reasons, we reject the Respondent's contention the level to composite methodology is not designed to identify a group of male employees performing work of equal value. We also reject the Respondent's contention that the level-to-segment methodology does not comply with the "implicit" requirements of s. 14 of the Guidelines and that only whole occupational groups of equal value are to be included in the deemed group. We have found s. 14 of the Guidelines has neither an explicit or an implicit requirement for whole occupational group comparators but only provides that the data reflecting the value of the male work be combined into the deemed group.

366. The results of the Respondent's wage gap calculations are found in Exhibit R-179. The following chart summarizes comparisons of central tendencies represented in Exhibit R-179, and more specifically, the male occupational groups having mean Willis points within a band of points (25th and 75th percentile) of the female complainant group.

Female Complainant Group	Mean Total Willis Points	Lowest Paid Whole Male Comparator Group	Mean Total Willis Points	Low and High Range of Mean Total Willis Points for the Deemed Group
CR	165.07	SC	150.15	133.50 191.29
DA	174.10	SC	150.15	133.50 206.22
EU	211.86	HP	191.29	185.23 231.87
HS	153.76	SC	150.15	113.70 157.40
LS	359.56	HR	336.56	297.43 401.89
ST	149.05	GS	133.50	133.50 157.40

(Source: Exhibit R-179)

367. The following chart summarizes the number of male comparators used in the Respondent's wage gap calculations for the lowest paid whole male-dominated occupational group and the deemed group:

SAMPLE SIZES FOR THE WHOLE GROUP METHODOLOGY		
Female Complainant Group	Lowest Paid Whole Male Group	Deemed Male Group
CR 413	SC 26	SC, GS, HP, GL, CM, PR 345
DA 349	SC 26	SC, GS, HP, GL, PR, CM, CX 410
EU 14	HP 24	HP, GL, SR, PY, DD, RO, FR, PI, CX 368
HS 240	SC 26	SC, GS, CM, PR, IL 171

LS 82	HR 9	HR, CH, SW, PS, PH, LE, BI, PG, AG, AU, SG, FO, FI, MT, ES, FS, AR, AO, EN, MA, CO, AI 360
ST 401	GS 112	GS, SC, CM, PR 161

(Source: Exhibit R-179)

368. We note from the preceding charts that in each of the lowest paid male-dominated occupational group comparators selected by the Respondent, the mean value is lower than the mean value of the female-dominated occupational group. With the exception of the HS-SC comparison, the difference in the mean values for the lowest paid male-dominated occupational groups to the female-dominated occupational groups range from a low of 14.92 points to a high of 23.95 points below the female mean. The question arises as to the reasonableness of these mean differences in the context of the equality principle that arises in s. 11 of the Act.

369. From a total of 53 male-dominated groups surveyed in the JUMI Study, only four male-dominated occupational groups are used by the Respondent for its lowest paid male comparator. The SC Group which represents the Ships Crews had a population of approximately 2,169 employees in 1987. The population of the three female-dominated occupational groups against which the SC Group is compared had, in 1987, a population of approximately 48,828 for the CR, 3,094 for the DA and 13,573 for the ST totalling 65,495 employees.

370. The total number of male observations (job evaluation scores) used as comparators for all six female-dominated occupational groups in the Respondent's lowest paid whole male-dominated occupational group methodology is 171 from a total sample of 1,407. (Exhibit R-179). This is approximately 12% of the male data. None of the statistical experts was given an opportunity to comment on the sizes of the sample comparisons because they were submitted during argument. However, Dr. Shillington did provide testimony on similar sample sizes from the Respondent's methodology which it applied in 1990 for the equalization payments. As explained previously, the Respondent employed a whole group methodology in 1990 using a statistical significance test to compare central tendencies of female and male-dominated occupational groups. In Volume 135, Dr. Shillington was asked to comment on the number of sample comparators used. In that instance, 73 male scores were used for the CR occupational group and 49 male scores were used for the ST group. Dr. Shillington testified in Volume 135 at p. 16559, line 16 to p. 16660, line 4:

> A. It is outrageous. When I understood and the Technical Review Committee argued that whole group comparators had problems and would lead to smaller sample sizes, as I think I have said, I thought it would be somewhat reduced sample sizes. I didn't think that you would end up with this type of reduction in sample sizes.
>
> It looks like you could have saved yourself a great deal of money in terms of the questionnaire and the sample sizes.

> Of the -- I don't know how many male questionnaires there were in total -- 1,500, how many got used at all?

371. The Respondent has not provided a sufficient evidentiary foundation to support its methodology. Further, there is little or no evidence the sample sizes agreed upon in the JUMI Study and approved by Statistics Canada are sufficient to support a lowest paid whole group methodology. The Respondent has not adequately addressed Dr. Shillington's concerns about the whole group methodology ignoring relevant data.

372. With regard to expert opinion as to the preferred methodology as between composite line and segmented line, the following experts supported and/or preferred the segmented line, namely, Mr. Sunter, Dr. Shillington and Dr. Weiner. It was also supported by the in-house expert for the Commission, Mr. Durber.

373. On the other hand, the composite line was acceptable to Mr. Willis during the JUMI Study. Dr. Swimmer who presented the composite line on behalf of the Alliance did not address comparative desirables between the composite line and the segmented line. He simply testified as to the suitability of the male composite line. Mr. Ranger, the in-house expert for the Alliance, favoured the male composite line.

374. In the context of the suitability of a composite line for comparison purposes, Dr. Shillington testified if he was told that a regression line is a good representation of the male data as a whole, he would analyse the overall regression by comparing it to a series of segments as a criteria for determining the reasonableness of the composite line. He testified in Volume 135, p. 16599, lines 1-14 as follows:

> In the evidence that you have made me aware of in terms of agreements that were made early in the whole process, those are non-statistical issues. But I do think that it is important for me to say also that if someone brought me a regression of some form -- it may not be linear, it may be quite complicated -- that they said was a good representation of the male data as a whole, I would analyse that by comparing that overall regression to a series of segments. I would use that as my criteria. That suggests that if you have sufficient data to support it, then you are safer using those segments for your adjustments.

375. We note that in Dr. Swimmer's cross-examination by Institute counsel, he acknowledged that the point values outside the range of values for the female levels could affect the relationship within the range, resulting in a difference between the segmented and composite line for a particular female level. Dr. Swimmer was provided with examples of composite and segmented lines calculated for the Institute groups. The examples provided by the Institute revealed that approximately two-thirds of the male scores used for the composite line were outside the value range of the Institute's complainant groups. Dr. Swimmer testified that he did not examine the impact of this situation in his analysis of the composite line. Dr. Swimmer testified as follows in Volume 202, p. 26154, line 8 to p. 26155, line 23:

> Q. Dr. Swimmer, we've just done for PIPSC-150 just one cut-off, which is the very bottom line of the range, but it's possible, is it not, that there would be different slopes if you broke it down farther, so that at different points in the range you could have a series of segmented lines, getting you something that was quite different from the main composite line?

A. That's true, but those segmented lines could also trace out in a composite curve, more or less, so anything is possible is what I am saying.

Q. Fine. But if they traced out on a composite curve, do I understand your evidence to be that as long as we were using the curves properly that there shouldn't be too much difference between the amount of money that the PIPSC groups would receive with the curves?

A. I can't say too much or too little. There would be differences. Obviously, your concept of too much is going to be different from somebody else's concept of too much. There will be differences.

Q. There will be differences, even if it was traced on a curve?

A. Yes, unless we had a perfect fit, which we have conceded we don't have a perfect fit. We say we have an extremely good fit for our composite line, but it's not perfect.

Given that, every point isn't going to be on the curve. So, the segmented lines are --

Q. Are not going to be on the curve?

A. Right. Perfectly on the curve, no.

Q. And because they are not perfectly on the curve, they are going to be affected by the observations that fall outside of their value range?

A. That's true, yes.

376. According to Dr. Weiner both the level-to-segment and the level-to-composite methodologies are common statistical methods for implementing pay equity. Both the Commission and the Alliance provided detailed statistical evidence of the specifics of each of their methodologies through Mr. Sunter and Dr. Swimmer respectively. The evidence of Dr. Weiner and the evidence of the expert statisticians on the appropriateness of the statistical methodologies on which to base comparisons provide, in our view, a sufficient evidentiary foundation for either a segmented male wage line or a composite male wage line.

377. Dr. Weiner preferred the segmented line because in her view it captures the principle of equal pay for work of equal value. (Volume 11, p. 1596). Although she would have no "qualms" about using a composite line she indicated that methodology is more useful if an organization has more of a single wage determination history or process. The Federal Public Service does not fit with either of these criteria. We refer to Dr. Weiner's response in Volume 10 at p. 1597, lines 8-17:

MEMBER COWAN-McGUIGAN: When would you use a composite line?

THE WITNESS: If the whole organization had much more of a single wage determination history or process where there weren't so many different groups with different wage-setting systems of their own, where there is either fewer of them or there was an attempt to do it as a single organization and the same wage-setting throughout the organization.

378. We find the design and purpose of the segmented line and the composite line is consistent with the principle of equality and "equal value" contained in the Act and specifically in s. 11. According to Dr. Weiner composite lines, and for that matter segmented lines, as compensation techniques are designed to reflect an employer's pay policy and pattern of pay for male work. In the context of pay equity, they capture the male wage policy of the employer which facilitates comparisons to female wages at the same point values. The composite line, according to Dr. Shillington, provides the overall pattern, the composite picture of male values. Both the level-to-segment (Sunter) and the level-to-composite (Swimmer) methodologies address the question of whether at each point value the female work is paid the same wage as male work.

379. The composite and segmented lines have different statistical applications. The composite line is used to predict the wages of all the male jobs of the population it represents for each of the corresponding point values of the female jobs. Dr. Shillington testified that the term "model" in statistics refers to a mathematical depiction of a real relationship or mechanism that is operating in nature. However, there is no true relationship between wages and Willis points that exists in nature.

380. In the case of the segmented line it is used to summarize the value of work for all the male jobs in the same range of values as the female level. The segmented line indicates, on average, the relationship between the Willis points and salary for the male jobs in the range. According to Dr. Shillington, the narrower ranges of the segmented lines gives information about male value in the individual range. Using the range in determining a comparator does not guarantee an equal distribution of values for the female and male work. Nonetheless, Dr. Shillington explained that in the context of comparisons, bringing in male values helps to inform the comparison and differences in distribution of value is not a limitation.

381. According to each of the parties the decision on methodology should be made irrespective of the question of amount of money the individual methodologies will cost to close the wage gap. Submissions on this point are provided as follows:

> (i) The Commission's position, Volume 235 at p. 31152, line 14 to p. 31155, line 11 reads:
>
> MEMBER FETTERLY: Maybe I should ask this question anyway.
>
> In reaching a decision on the methodology, are you suggesting that we should ignore the results vis--vis the cost.
>
> MS. MORGAN: That's a question that appears to have one answer, but in fact has two answers.
>
> What Dr. Shillington is saying in this perspective, and the compensation experts are saying, is that you don't start out by choosing it on what the total cost is at the end. You look for what is it the statute is telling us to do -- achieve equality of result -- what guidance is there in the statute for doing that, you turn to your compensation and pay equity experts and statistical experts to say "What is the appropriate data analysis methodology", then you look at the end results and you may do some sensitivity analysis or, if you have done it in the course of doing

your methodology to some degree, as Mr. Sunter described, then you have a reasonable technique.

The reason maybe for looking at the end result would tie into section 53 of the Act, what are we ordering to be paid here, but also you will recall Mr. Sunter and Dr. Shillington both said that any reasonable techniques won't be so far divergent in their final results. That doesn't mean total pot, becasue if you'll remember, he made the distinction that there is a question of total pot, but that is dependent on your population.

For the level-to-segment the average pay-out for the CR group is $1.10/hour. For PSAC's approach of composite line it's not much different per hour. Yes, the total pot is going to be different because you have a population of 49,000 employees -- irrelevant.

It is the reasonableness of the data analysis techniques and their similarity in achieving equality of result on the level that is relevant -- hourly pay-out per employee -- not total pop, which aggregates population so it will look different depending on what your population is.

We have 72,000 employees that are going to be affected by this decision. If we had five employees affected by this decision, we are not going to look at the total pop.

MEMBER FETTERLY: I think you will agree that it's a responsibility, if we have any discretion in selecting the methodology, we have a responsibility not just to the provisions of the Act, but we also have a responsibility to come to a fair and equitable decision insofar as the general public is concerned, or is that something we are not concerned with?

MS. MORGAN: It depends on what perspective you're looking at it from.

MEMBER FETTERLY: I'm putting that as a question.

MS. MORGAN: The principle is true. You have to come to a fair and equitable result, consistent with the goals of the legislation, yes, but you are restricted by what the legislation requires, and there is no restriction within that legislation of what the total pay-out is going to be.

So, no, fair and equitable result in terms of taxpayers money is not a consideration for this Tribunal under section 11 or the Canadian Human Rights Act in general. Absolutely not.

(ii) The Alliance's position, Volume 238 at p. 31653, line 8 to p. 31654, line 2 read:

MR. RAVEN: I am saying to you respectfully that you must decide this case on the basis of a variety of factors and cost is not one of them.

My submission to you was, and is and will be, you have to look at the legislation, the pay equity expert testimony, the statistical expert testimony and the fact of the agreement, and if those four factors lead you to the conclusion that the composite line is appropriate or, to put it another way -- this is the way I prefer to put it -- in the face of the agreement at the outset of the study, in the fact

of Norman Willis' advice, in the face of the fact that the sample was drawn to composite line, if you don't find the composite line to be offensive of the Act you should go with it. You should give us back what we thought we were getting at the beginning. And the cost should not be a factor.

(iii) The Respondent's position, Volume 240 at p. 31937, lines 10-21:

Madam Chair and Members of the Tribunal, I wish to just pick up on the point upon which we left, and that is the question of cost.

You will recall that my friend Mr. Raven criticized the employer for not bringing evidence on how much the employer's methodology would cost. The reason the employer didn't bring that kind of evidence is that it is our submission that the cost is not relevant to deciding the principles in this case. The interpretation must be decided based on the principle alone, not on how much it would cost.

382. As such, the Tribunal was not provided with overall monetary figures as to the actual cost of each of the separate methodologies. Both the Commission (Exhibit HR-219) and the Alliance (Exhibit PSAC-164) provided calculations using their respective methodologies which estimate the wage gap between the female complainant group and the male comparator group. The Respondent provided charts during its argument to illustrate the effect of jobs of unequal value, which it claims arises from the Alliance's methodology, has on the measurement of the wage gap as compared to the Respondent's methodology (Exhibit R-176).

383. The Tribunal agrees that the selection of the methodology must be governed by the principle of equality and equal value enshrined in s. 11 of the Act and not by any other considerations which are not germane to these principles.

384. In the results, we carefully considered Dr. Swimmer's work, the statistical experts, Dr. Shillington and Mr. Sunter's comments and opinions about the segmented and composite lines, Dr. Weiner's testimony about the advantages and disadvantages of the level-to-segment and the level-to-composite methodologies, including submissions by counsel for the Alliance and the Commission. On balance, we favour the level-to-segment methodology for the reasons given in written and oral argument by Commission counsel.

385. We do not find that the discussions in the JUMI Committee meetings, reflected in the minutes, amounted to a firm, unconditional commitment from all sides to the composite line methodology. The minutes, at the most, appear to point to a tentative acceptance of the male composite line. Our finding is supported by the Commission document entitled "Report of the Joint Union/Management Committee on the Equal Pay for Work of Equal Value Study". (Exhibit HR-11A, Tab 13). This report was submitted by the JUMI Committee to the President of the Treasury Board on March 31, 1987, with a detailed implementation plan for the JUMI Study. The adjustment methodology is addressed on p. 1 of this report and reads as follows:

ADJUSTMENT METHODOLOGY

A decision on the adjustment methodology was postponed until the job evaluation stage is completed. The sampling methodology will allow for various adjustment approaches as proposed by both sides.

386. Further support for our conclusion of only a tentative acceptance of the composite line by all the parties is found in the testimony of Mr. Ranger. Mr. Ranger participated on the Alliance's behalf in the JUMI process. He attended JUMI meetings and was present when the Treasury Board made its presentation on sampling methodology to the JUMI Committee. He was also present when the Treasury Board proposed a wage adjustment methodology for the composite line. According to Mr. Ranger, the parties envisaged that at the completion of the JUMI Study, there was an option when considering wage adjustment methodologies, for potentially different wage adjustment methodologies to be discussed bilaterally between the Institute and Treasury Board and between the Alliance and Treasury Board, (Volume 205, p. 26481-82). Mr. Ranger did testify the Alliance never changed its position on the composite line approach. However, this evidence falls short of proving that there was in existence a binding agreement between the Alliance and the Treasury Board.

B. Ratcheting

387. The Respondent's position is that "ratcheting" would result if a female-dominated occupational group is compared to a "deemed" group under s. 14 of the Guidelines. Ratcheting is a process of repetitive wage adjustments whereby one wage adjustment sets up the basis for a second that affects the original and then repeats itself. The Respondent argues ratcheting has the potential of occurring under the present legislation as a result of the combination of two factors:

> (i) s. 11 of the Act allows employees of both sexes to file equal pay complaints; and
>
> (ii) s. 14 of the Guidelines provides for the creation of a deemed group to be used as a comparator where several occupational groups of one sex perform work of equal value.

388. The Respondent contends a deemed group approach would allow males below the newly adjusted female group to be adjusted to the wage line for the deemed group. The Respondent further contends the deemed group violates s. 11 of the Act because the difference in wages between a female-dominated occupational group and the "deemed" group is not caused by gender discrimination.

389. Dr. Weiner considered ratcheting a non-issue in the context of equal pay for work of equal value. She described this phenomenon as changing the focus from identifying equity based on a pattern of male jobs to a concern for the individual placement of the male jobs around the male regression line which, in reality, already exists before any adjustments to the female salaries occurs. In her opinion once a methodology is defined to achieve pay equity the focus should be sustained. She testified that if the target is always moving it defeats the achievement of equity. She testified in Volume 7 at p. 1066, lines 1 - 21 as follows:

> I can't believe the concept of fairness and equity and pay would be part of it. It seems to me, there are choices of standard -- job to line, line to line, job to job -- and having picked one of those standards [sic] then use logic in a way that is consistent within that. You don't then allow a ratcheting process.
>
> THE CHAIRPERSON: Would it be a concept that would be incongruous to the concept of pay equity?

THE WITNESS: I find it hard to swallow but, again somebody has thought of it, somebody is concerned about it.

It seems to me it just doesn't fit with how you define your definition of equity. If the male wage line is the fair wage, then to move any male job changes that. How can you say you are going to have a standard, but the minute you have that standard you are going to allow-- I can't fathom it.

390. Mr. Durber testified that the Commission would reject any complaint of a male group that attempts to compare its wages to the post-adjustment wages of the female group. Mr. Durber testified that the Commission would be justified in rejecting such a complaint from a male group on the basis that the male group in reality would be comparing its wages, not to the wages of the newly-adjusted female group, but rather to the wages of other males as represented by the wage line for the deemed group. Mr. Durber further testified that ratcheting is also known as "reverse discrimination". According to Mr. Durber, there has been no reverse discrimination complaints filed with the Commission.

391. Mr. Durber testified in Volume 146 at p. 18128, line 3 to p. 18130, line 15 as follows:

Q. You have indicated that in your view that would not be allowed, that those males would not be permitted to lay a complaint subsequent to this process. Why not?

A. My view is that what they really are complaining about is the average male line. We have done nothing to change the average male line. That is clear.

The females are brought up to that line, so we are not changing males in the process. We are doing nothing to discriminate against males.

The males can no more claim discrimination versus other males than females can claim discrimination versus other females. So my view of it is that there would be no basis for that kind of complaint.

Q. How would the Commission treat the receipt of such a complaint?

A. We would obviously have to investigate it. If we hadn't been a party to this kind of solution, we would want to make sure it was arrived at duly in conformity with the law and that there were not problems, that no males were treated less favourably, for example. We would want to go through a number of those questions.

But I must say, had the Commission been a party to this -- let's suppose that this line results from a settlement of some kind and the Commission had examined it and found it conformed with how one would expect a pay equity study to be done, I think we would advise the complainant to that effect. We would draw up an investigation report. The complainant could make a submission and the Commission would consider it. Hopefully the Commissioners would agree to dismiss the complaint as not founded on sex, not founded on discrimination as between sexes.

392. Mr. Sadler testified the Commission's practice does not permit the filing of s. 11 complaints by individual members who are not satisfied with the complaint established on behalf of the group.

393. We find there is no validity to the ratcheting argument advanced by the Respondent. The rationale behind a wage adjustment methodology in the complaints before the Tribunal is the establishment of a male wage curve to capture the male wage policy of the employer. This cannot, in our view, give rise to a claim by males of a discriminatory practice. Ratcheting, in this instance, does not capture the essence of what pay equity is designed to achieve and in that sense is not compatible with the purpose of s. 11.

394. We do not agree with the Respondent's submission that the Supreme Court of Canada decision in S.E.P.Q.A., supra, supports their position on ratcheting. Respondent counsel relies on the comments of Mr. Justice Sopinka, in delivering the majority decision, to support its contention that a deemed group approach would allow ratcheting. Comments made by Sopinka J. are found in his description of the factual situation of the case. His description of the facts reads, in part, at p. 887-88:

> This process took approximately four years and from beginning to end the investigator was in constant touch with the appellant and the CBC. The investigator obtained the benefit of their comments from time to time.
>
> Although some discrepancies were found by the investigator, they were not significant having regard to the overall consistency of the ratings. The investigator concluded that the existing salary disparities were as a result of job misclassification, noting that they were also present in comparisons between properly and improperly classified male employees rather than based on sex. Accordingly, he recommended that the complaint be rejected by the Commission as unsubstantiated.
>
> Notwithstanding the fact that the parties had been kept abreast of the investigation during its progress, on October 16, 1984 the regional investigator, Michel Pitre, wrote to the appellant as follows:
>
> [Translation] We therefore enclose a copy of the documents that will be submitted to the Commission for its use in arriving at a decision in this case. You are requested to send your submission to the Director, Complaints and Compliance (Canadian Human Rights Commission, 400, 90 Sparks Street, Ottawa, Ontario, K1A 1E1) within thirty calendar days of the date of receipt of this letter.
>
> Enclosed with the letter was a copy of his report which explained the methodology, including references to the Aiken Plan, and the results of its application. Furthermore, the discrepancies referred to above were fully identified. Under the heading "Discussion", the investigator explained that in investigating the matter, it was necessary to consider the group rather than individual members and to examine the system rather than focussing on individual complaints. This is based on the Commission's interpretation of s. 11 of the Act. This interpretation is adopted because of the Commission's view that

> s. 11 is so worded as to prevent "ratcheting" and other wage adjustments that are not in accordance with good compensatory practice. For example, ten different male employees performing dissimilar work and being paid different salaries, nevertheless may all be performing work of equal value to a lesser paid female employee. If the female employee were entitled to limit a complaint under s. 11 to a comparison of her wages only to those of the highest paid male, her wages would be adjusted to be equal to those of the highest paid male. Thereafter all other males could require adjustment of their wages to be equal to those of the female who would then be receiving the highest wage rate. The result of such an approach would be that all employees would eventually move to the highest wage rate. Administered in this way, s. 11 would not be a guarantee of equal pay between sexes, but a guarantee of equal pay for work of equal value irrespective of sex. [emphasis added]

395. Respondent counsel relies on these comments by Sopinka J. to support its contention that a female complainant group is not entitled to have wages adjusted to the average of the comparators as in the "deemed" group because that would allow males below the newly adjusted females to be adjusted to the same level.

396. We find Mr. Justice Sopinka's comments concern the interpretation by the Commission of s. 11 of the Act to the facts of that case. The Commission's investigator had concluded that the existing salary disparities found in their investigation resulted from job misclassifications rather than being based on "sex". For this reason the Commission did not want to adjust the female wage irrespective of sex. Mr. Justice Sopinka was in agreement with the investigator's conclusion. We do not find Mr. Justice Sopinka's comments support the conclusion that "ratcheting" in the manner described by the Respondent would occur. In the context of Mr. Justice Sopinka's remarks ratcheting arises from an interpretation of s. 11 that would allow a claim of pay inequity with "the higher paid males". That is not the basis of comparison with the level-to-segment methodology. It is the female level compared to the average of the male values that is the method of comparison.

397. Our finding is in accordance with the Respondent's reaction to the Commission's draft Guidelines of 1986 recorded in Ms. Ouimet's paper (Exhibit PSAC-20) presented at York University, Toronto in March 1987. (see Section VII, A, Paragraph 251). We again refer to the excerpt which reads:

> The Canadian Human Rights Commission has recently approved Guidelines which address a number of the issues related to the implementation of equal pay for work of equal value. Two of the interpretations we e[s]pecially welcome are related to regional rates as a reasonable factor for wage differences, and the acceptance of using the weighted average of wages paid comparison groups in calculating equal pay adjustments for a complainant group as opposed to settling to the highest comparison wage. This will eliminate the risk of creating grounds for reverse discrimination. [emphasis added]

IX. REGIONAL RATES

398. Ten of the occupational groups surveyed in the JUMI Study have "regional rates" of pay. This means that Public Service employees in occupational groups across the Federal Public Service, occupying similar positions, are paid different wage rates. Regional rates are associated with a particular geographic region in which the employees live. The remaining occupational groups surveyed in the JUMI Study have a "national rate" of pay. This rate is uniform and does not vary from region to region.

399. Mr. Durber testified regional rates of pay were introduced into the Federal Public Service in 1967 with the advent of collective bargaining. He explained the government hired "prevalent rate" employees whose wage rates were established locally within a region. According to Mr. Durber, establishing a regional rate enabled the Federal Government to integrate non-public service persons into the public service in a manner which would not disrupt the local business environment.

400. On the evidence we have received as to group population we find that, of the six female-dominated occupational groups represented by the Alliance, approximately 1.8% of the incumbents in that group are on a regional rate compensation system. This represents two of the female-dominated occupational groups, including Hospital Services (HS) and Educational Support (EU).

401. Both the Commission and the Alliance submit the matter of regional rates raises two issues in the determination of equal pay for work of equal value. The first concern is how to calculate a wage gap for female groups with regional rates of pay compared to male wages for which regional rates are also paid. There were six male-dominated occupational groups identified as male comparators in the JUMI Study that had regional rates of pay. The second concern is whether regional rates are allowable under s. 11(4) of the Act and ss. 16(j) and 17 of the Guidelines. These provisions read as follow:

> The Act:
>
> 11(4) Notwithstanding subsection (1), it is not a discriminatory practice to pay to male and female employees different wages if the difference is based on a factor prescribed by guidelines, issued by the Canadian Human Rights Commission pursuant to subsection 27(2), to be a reasonable factor that justifies the difference.
>
> The Guidelines:
>
> 16 For the purpose of subsection 11(3) of the Act, a difference in wages between male and female employees performing work of equal value in an establishment is justified by
>
> (j) regional rates of wages, where the wage scale that applies to the employees provides for different rates of wages for the same job depending on the defined geographic area of the workplace.
>
> 17 For the purpose of justifying a difference in wages on the basis of a factor set out in section 16, an employer is required to establish that the factor is applied consistently and equitably in calculating and paying the wages of all male and female employees employed in an establishment who are performing work of equal value.

402. The Commission and the Alliance contend after the complainant has established a prima facie case of discrimination under s. 11 of the Act, the Respondent is entitled to invoke the reasonable factor provision of s. 11(4) of the Act and s. 16(j) of the Guidelines in order to justify its position, but that it failed to do so.

403. The Alliance submits the female level and or sub-group within the HS and EU occupational groups should be adjusted to the male composite line. This adjustment would, in effect, eliminate all regional rates for these two groups. (Volume 238, p. 31730, lines 15-25). Having disposed of the composite line as the appropriate wage adjustment methodology in this case, the Alliance's position on regional rates is rendered redundant.

404. The Commission contends that only the regional rates for the EU female-dominated occupational group should be disallowed. According to Mr. Durber, s. 17 of the Guidelines provides a threefold test to determine whether an employer may rely upon a reasonable factor in s. 16 of the Guidelines to justify the existence of a pay equity wage gap. (see Section IX, Paragraph 401). Mr. Durber described the three tests applied by him in this case. They include:

> (i) The Consistency Requirement: The Commission's investigation includes an assessment of occupational categories in the Federal Public Service to determine whether female-predominant and male-predominant occupations in these categories are similarly treated in similar circumstances. The Commission essentially tests whether or not there is consistency in the assignment of regional rates as between male and female work within an occupational group;
>
> (ii) The Equity Test: The Commission determines whether there are adverse impacts on females by paying them regional rates by comparing them with males in similar circumstances. This test suggests that it is important to look at the assignment of regional rates by occupational category; and
>
> (iii) Equal Value: This test looks to see whether employees in male-predominant and female-predominant groups are treated consistently and equitably within the same value range. The Commission looks to see whether there is a reasonable percentage of male-dominated occupational work with regional rates in the relevant range of values for the female group.

405. Mr. Durber testified he conducted an investigation to determine whether the Respondent met the tests as described by him. On the basis of his investigation he concluded only the regional rates paid to employees in the HS occupational group are defensible pursuant to ss. 16 and 17 of the Guidelines. The Commission concluded, from Mr. Durber's investigation of regional rates for female-dominated occupational groups, that regional rates should be maintained for the HS occupational group and eliminated for the EU occupational group. In his investigation Mr. Durber considered the regional rates in the male-dominated occupational groups used for comparison purposes. According to Commission counsel, Mr. Durber found no reason to suspect discrimination as a basis for the regional rates in the male-dominated occupational groups.

406. The Respondent's position is that s. 16 of the Guidelines operates only if an employer acknowledges a pay equity wage gap and is attempting to justify that wage gap based on the

existence of regional rates or one of the other listed reasonable factors listed in s. 16 of the Guidelines. The Respondent further contends it is in that context s. 17 of the Guidelines kicks in. Paragraph 257 of the Respondent's written submissions reads, "that in this case, the Employer does not acknowledge the existence of a pay equity wage gap, and does not seek to justify a wage gap on the basis of regional rates."

407. The Respondent argues neither s. 17 of the Guidelines nor s. 11 of the Act renders regional rate differentials to be a discriminatory employment practice. It submits the mandate of s. 11 of the Act is not to deal with differentials between different rates within a female-dominated occupational group based on regions and accordingly there is no legislated mandate to eliminate regional rates in a female-dominated occupational group. Moreover it is the Employer's position that the question of whether regional rates are discriminatory belongs in ss. 7 and 10 of the Act which is not before the Tribunal in this hearing. (Volume 179, pp. 22785-86).

408. We will first address whether regional rates should be eliminated in the two female-dominated occupational groups.

409. Mr. Durber admits in his testimony this is the first time the Commission has dealt with the question of regional rates in the context of a pay equity complaint under s. 11 of the Act. We find the description of the three tests applied by Mr. Durber to be, at the very least, vague and lacking in sufficient clarity. There appears to be considerable overlap between all three. The Tribunal was not provided with any rational basis for the kinds of considerations taken into account by Mr. Durber. No standard approach to this problem has been presented by the Commission to this Tribunal with reference to ss. 16(j) and 17 of the Guidelines. This is apparent in the following testimony provided by Mr. Durber in Volume 152 at p. 18920, line 8 to p. 18922, line 6:

> Q. Has this kind of in-depth review of regional rates been undertaken by the Commission before with other complaints?
>
> A. No.
>
> Q. Why not?
>
> A. We have had settlements, largely because we have had group to group comparisons, as I think the Tribunal has heard. We have not had a comprehensive set of comparisons such as the one before you. The groups being compared, as I understand it, have largely been those involving regional rates. Now, not entirely because there was a nursing complaint which involved males without regional rates, but that was a tentative settlement. So that the issue was solved on its face, but recognizing there were other issues to be dealt with.
>
> So, the Commission didn't deal with that and, as I've said, it did not arise in the case of General Services. Formulas for calculating regional rates have come up, but not as to whether they met the burden of section 17.
>
> I might add quickly, many of the settlements pre-dated the addition of regional rates to the Equal Wages Guidelines, but nonetheless regional rates were considered prior to 1986.

> Q. Given your statement, what is your opinion on the possibility of there being other ways of looking at testing the reasonableness of regional rates? You have raised three (3) possible tests under section 17, because those came to mind, but are you also closing doors on other views of section 16?
>
> A. I would think the only one that I would suggest be -- the only door, that is, that I would suggest be closed is one which says that in the hospital sector, for example, rates are provincial. It is the policy of the employer to match the outside market, therefore we import regional rates from hospitals and from provinces. I would think we would have to go beyond using the market as our justification. We know that wage discrimination does occur in the market and that it doesn't provide a reasonable yardstick for justifying discrimination.
>
> So, other than that, certainly the door would be open to what other evidence might be produced.

410. The Tribunal recognizes that the Respondent has not raised a defence under ss. 16 and 17 of the Guidelines in this case. Nonetheless, the Tribunal must be satisfied with the Commission's interpretation of s. 17 of the Guidelines and that its application of ss. 16 and 17 of the Guidelines is proper in these circumstances. The Commission's approach must make good sense with a sound rational basis. This has not been found in the testimony of Mr. Durber. Therefore we find no reason to eliminate regional rates in either of the complainant groups, that is, the HS and the EU occupational groups.

411. We will now examine the appropriate rate of pay to use in calculating the wage gap when there are regional rates using the level-to-segment methodology.

412. The Commission proposes the use of the "simple averaging" methodology for the HS occupational group and for the male-dominated occupational groups with regional rates. Mr. Durber expressed a concern that a weighted average could cause problems in a level-to-segment calculation. He was unable to articulate what the problems would be. The simple average approach is described in Exhibit HR-256. In calculating a wage gap the Commission recommends the application of a simple average of the male regional rates in each segment for the purpose of identifying a wage gap. No elimination of regional rates for male groups will result from this technique.

413. The simple average is arrived at by adding together the maximum rates of pay from each level of the group or sub-group and dividing by the number of regional rates in the sample. A simple averaging procedure does not take into account the varying number of incumbents in the particular regions.

414. In contrast to the Commission's proposal of a simple average of all regional rates of pay for male-dominated occupational groups, the Alliance advocates a weighted average to arrive at a wage rate for observations from male comparator groups paid on a regional rate basis. The weighted average is obtained by multiplying the wage rate paid in each region by the number of incumbents in the region, adding together these totals and dividing by the total number of incumbents in all regions. The resulting number is referred to as the "weighted average". The rationale for the Alliance's calculation arises from the sample selected for the JUMI

Study. According to the Alliance the sample was not to be reflective in anyway of the various pay regions across Canada or of the working populations of such regions. (Volume 238, pp. 31720-21).

415. The Respondent also advocates a weighted average approach. It is noted the Respondent used a weighted average for its wage adjustment methodology wherever a regional rate arises in a female-dominated or male-dominated occupational group. According to the Respondent a weighted average provides a more accurate wage rate for all employees in the occupational group.

416. We find the weighted average approach more accurate in identifying the regional wage rate for the purpose of the level-to-segment calculations. The employee population paid on a regional rate basis is available to estimate a weighted average. In all instances, we note the weighted approach was preferred for calculating a wage gap. Mr. Sunter himself favoured weighted regressions as the more appropriate method of analysis for his level-to-segment calculations. (Volume 112, p. 13465). At the point of calculating a wage gap, Mr. Sunter testified you use the finest method of analysis available.

X. REMEDIES

A. Retroactivity

417. All parties are in agreement the period for retroactive adjustment can run from April 1, 1987 until the date of this Tribunal's order. The Respondent submits there is a sound basis to go back to April 1, 1987 but if the Tribunal chooses some prior date for an adjustment that date must relate to the proof of a wage gap in the case. The dispute concerning the period for retroactive adjustment arises for the period prior to April 1, 1987.

418. The Commission submits that the wages for the female complainant group should be adjusted to provide for a retroactive period extending from December 19, 1983 for the CR occupational group. This is one year prior to the filing of its original complaint which was filed on December 19, 1984. The Commission has established a common practice in pay equity complaints to limit retroactive claims to one year prior to the filing of the complaint. For the other complainant groups identified in the complaint filed on February 16, 1990 on behalf of the six female-dominated complainant groups listed in the complaint, the Commission submits five of the groups, the HS, ST, EU, DA(CON) and LS occupational groups should have their wages adjusted as of March 8, 1984, one year prior to the announcement of the JUMI.

419. In support of its position the Commission relies on the evidence of Mr. Willis concerning a State of Washington comparable worth study in which Mr. Willis provided the job evaluation plan and assisted in the job evaluation and analysis. In that case an American Court ordered a remedy for lost wages extending back to two years prior to the date of the pay equity study. In addition the Commission relies on the judgment of Hugessen J. in Non-Public Funds, supra, in which he found the Tribunal under review had erred in its duty to consider the extent of a retroactive wage adjustment on the basis that the complainant had made out a prima facie case for a wage adjustment.

420. The Commission further contends that together with the Alliance it has demonstrated female-dominated occupations within the Federal Public Service have been historically undervalued through the wage setting process and female-dominated group pay rates continue to be undervalued as a result of systemic problems. The Commission takes the position the onus is on the Respondent to prove that relative changes in job values after the date of the JUMI Study did not exist during a prior period.

421. The Commission premises its submissions on the remedial provisions of the Act which, it contends, must be applied and interpreted in a manner that furthers the purpose of the legislation. The Commission submits the systemic remedy recognized by the Supreme Court in Canadian National Railway, supra, is applicable to remedying a s. 11 complaint. In that decision the Court upheld an order of a Human Rights Tribunal which imposed upon Canadian National Railway a special equity employment program for females.

422. The Commission argues that the burden of proof in determining the extent of a wage loss in a s. 11 complaint must be governed by a standard of reasonableness. It submits the testimony of the Alliance witness, Ms. Millar, combined with the pay equity concerns of its members prior to the announcement of the JUMI Study and the ongoing systemic nature of the discrimination in this case supports a conclusion that, by "any reasonable standard," the discrimination predates the date of the complaint and the announcement of the JUMI Study. (see paragraph 34 of written submissions).

423. The Alliance essentially agrees with the dates requested by the Commission for the calculation of retroactive wages with respect to its groups. The only difference pertains to the DA occupational group which the Alliance claims should be applied to the whole group not just the DA-CON sub-group. The Alliance has not provided us with any reason why the DA group should be considered as a whole group with a level-to-segment methodology. In addition to the reasons provided by the Commission the Alliance submits this Tribunal should be guided by the goal of the compensation provisions in the Act which, it submits, is to fully and adequately compensate a complainant for the discriminatory practices, relying on Grover v. National Research Council of Canada (1992), 18 C.H.R.R. D/1 (C.H.R.T.), affirmed (1994), 80 F.T.R. 256 (F.C.T.D.) and Pitawanakwat v. Canada (Attorney General) et al. (1994), 78 F.T.R. 11 (F.C.T.D.).

424. The Alliance contends the decision of Mr. Justice Hugessen in Non-Public Funds, supra, supports a presumption that once a wage gap has been established there is reason to believe that the wage gap has existed for a period of time prior to that determination. The Alliance refers to the following remarks of Mr. Justice Hugessen at p. 99 which read in part:

> ...While the provisions of the Human Rights Act are purely remedial and not punitive, it may in fact represent a considerable hardship to an employer to have to face claims for retroactive wages going back many years. One of the reasons why I have indicated that I think the burden of proof should be borne by the employer, once a wage gap has been established, to show that such wage gap did not exist during the prior period is that the employer is the person who is most likely to be able to have access to the necessary information about the duties

> attached to each job, their values and the wages paid. That likelihood diminishes the further back one reaches beyond the time when the employer was put on notice that his pay practice may be discriminatory. Furthermore, the presumption that systemic discrimination will have produced the same effects in the past as it does in the present clearly becomes weaker the further it is extended into the past...[emphasis added]

425. The Alliance emphasizes the fact that upon the announcement of the JUMI Study in March 1985 the Commission, at the Respondent's request, agreed to hold existing s. 11 complaints in abeyance and to treat any new s. 11 complaints in a similar fashion. In this regard the Alliance contends the Complainant groups should not be disadvantaged by that practical arrangement. The Alliance submits it was for this reason no further s. 11 complaints were filed during the JUMI on behalf of employees represented by it.

426. On the other hand the Respondent submits an estimate of a wage gap using the job evaluations of the JUMI Study should be based on the wages of the fiscal year April 1, 1987 to March 31, 1988. The Respondent contends this time frame provides a sound basis for estimating the wage gap. It was in the summer and fall of 1987 that the JUMI Committee gathered job information to be used for the job evaluations. The Respondent argues other time frames such as 1984-85 or 1989-90 used to estimate the wage gap would result in estimates based on the assumption that the relative value of jobs for the complainant and for the comparators remained constant during the whole period of time.

427. The Respondent relies on the evidence of Mr. Willis, who testified that the duties of a position may change with time and job information is less relevant for times before and after it is collected. There is further testimony from Mr. Willis that job information is best applied to the time for which it is collected. In the studies he has participated in, pay relationships were identified at the time the questionnaires were completed.

428. The Respondent further submits time frames other than 1987-88 assume the comparator groups remain the same during the whole period of time. Such an assumption, it says, cannot be sustained in view of the changes in the gender predominance of occupational groups used in the JUMI Study. Although raised in submissions and argument, there is little, if any, evidence on this point. The Respondent contends there have been changes in the gender predominance of the PM, HS and EU occupational groups since the JUMI Study.

429. The Respondent noted Mr. Justice Hugessen's remarks in Non-Public Funds, supra, that the burden of proof should be borne by the employer once a wage gap has been established. The Respondent submits that the burden is not reasonable in the circumstances of this case. The Respondent set out its reasons in paragraph 46 of its written submissions for Phase IIB:

> In this case, evidence relating to job duties, job values and wages was marshalled by the Joint Initiative Committee in 1987-88. The evidence in this case demonstrates what a massive effort is required to marshall evidence in response to these complaints, and why it is important that this be done in a joint effort rather than unilaterally by either the Complainant or the Respondent. Thus, in relation to the present complaints, it is respectfully submitted that the

> Respondent could not reasonably be expected to marshall evidence relating to any period before 1987-88.

430. The applicable provision of the Act which confers upon a Tribunal the power to award remedies is found in s. 53(2)(c) of the Act. That section reads:

> 53(2) If, at the conclusion of its inquiry, a Tribunal finds that the complaint to which the inquiry relates is substantiated, it may, subject to subsection (4) and section 54, make an order against the person found to be engaging or to have engaged in the discriminatory practice and include in that order any of the following terms that it considers appropriate:
>
> > (c) that the person compensate the victim, as the Tribunal may consider proper, for any or all of the wages that the victim was deprived of and for any expenses incurred by the victim as a result of the discriminatory practice;

431. The reach of s. 53(2)(c) of the Act was commented upon by Hugessen J.A. in Non-Public Funds, supra, in the context of a Tribunal's authority to make whole a complainant who has suffered discrimination. Mr. Justice Hugessen was critical of the Human Rights Tribunal for its "absurdly minimalistic approach to its remedial powers," (paragraph 20, p. 90), in denying that any retroactive pay adjustment should be made. Mr. Justice Hugessen comments on s. 53(2)(c) in paragraph 20 as follows:

> As I read this provision, it is a simple and straightforward authority to order the payment to a victim of lost wages resulting from a discriminatory practice. Such an order will always be backward looking and will result from the answer to the question "what wages was this victim deprived of as a result of the discriminatory practice?" Nothing in the text justifies the view that such an award should be "minimally afforded" or that its starting point should be restricted "to the moment the complaint was filed". A complaint of discrimination necessarily relates to practices which have predated the complaint itself; one can hardly complain of discrimination which has not yet occurred. Of course, the discrimination may be continuing so that the Tribunal will also order remedies for the future, but that fact should not blind us to the obvious need to remedy what has taken place in the past...

432. According to Mr. Justice Hugessen the Tribunal's decision that it was unable to correct and redress historical wrongs by virtue of s. 53(2)(c) "flies in the face of not only the text but also the purpose of the Canadian Human Rights Act." (p. 94, paragraph 34). Mr. Justice Hugessen disagreed with the Trial Judge's dismissal of the complaint because the learned Judge failed to recognize the purposive interpretation of the Act which has been generally accepted by the Courts.

433. In commenting on the extent of the retroactivity of an award for wages Mr. Justice Hugessen found merit in the Respondent's submissions that there must be some reasonable time frame fixed around any claim for retroactive pay. He remarked that the appellant's position which was to sustain a claim for wage discrimination going back for an unlimited period to be unreasonable. He explains at p. 99:

> ...The appellant's position that it should be able to sustain a claim for wage discrimination going back for an unlimited period is, in my view, unreasonable insofar as it relates to any period for which the employer could not reasonably be expected to marshal evidence relating to job duties, job values and wages. In ordinary circumstances, the present limit set by the Commission's practice of one

> year prior to the filing of the complaint seems to me to strike a reasonable balance between the competing interests involved. Like any limitation period, it is, of course somewhat arbitrary and I would temper such arbitrariness by holding that it could be varied by a Tribunal if the facts in any particular case indicated that a longer or a shorter period was warranted.

434. We note in Non-Public Funds, supra, that the Commission's investigation took place early in 1988, about a year after the filing of the complaint, which was dated February 12, 1987. The parties had agreed that the wage adjustment would commence for the period June 1, 1987 but could not agree on whether there should be a retroactive wage adjustment for the period February 12, 1986, (one year prior to the filing of the original complaint), to May 31, 1987.

435. In the complaints before us the CR occupational group complaint filed its complaint on December 19, 1984. It was not investigated in the manner normally followed by the Commission because of the intervention of the JUMI. The job information was not gathered until 1987 during the JUMI Study. The second complaint dated February 16, 1990, was filed after the breakdown of the JUMI which occurred on January 23, 1990 when the Alliance permanently withdrew from the JUMI. The substance of that later complaint invokes the JUMI Study job evaluations and alleges "that the results obtained through the process of the Joint Union Management Initiative on Equal Pay for Work of Equal Value have demonstrated the existence of wage rates which are in contravention of section 11 of the Canadian Human Rights Act," (Exhibit HR-10). The existence of discriminatory wage rates was never investigated within the Commission's usual practice. Instead the Commission relied on the results of the JUMI Study for establishing job value and the applicable wage rate.

436. We recognize that the parties are not seeking an unlimited period. We believe this is a case where common sense must prevail. It is well established in cases of discrimination under the Act, that the goal of compensation is to make the complainant whole, taking into account principles of remoteness and reasonable foreseeability. (see Canada (Attorney General) v. Morgan, [1992] 2 F.C. 401 (F.C.A.) and Canada (Attorney General) v. Thwaites (1994) 3 F.C. 38 (F.C.T.D.)). The Federal Court of Appeal in Morgan, supra, affirmed that in establishing a period of compensation, common sense applies and some limits need to be placed upon liability for the consequences flowing from a discriminatory act, in the absence of bad faith.

437. We heard testimony from Ms. Millar of the Alliance that prior to the enactment of the Act in 1979, the Alliance raised the issue of equal pay for work of equal value at the bargaining table with the Treasury Board. According to Ms. Millar the employer refused to negotiate equal pay for work of equal value and employees represented by the Alliance chose, firstly, the conciliation process which was then followed by the strike route. The Alliance felt it had exhausted all attempts at settlement of this issue and subsequently filed two s. 11 complaints with the Commission. These were the LS and GS group complaints filed in 1979. (see Section I, B). Ms. Millar testified the settlement for the GS complaint provided for retroactive adjustments for one year prior to the filing of the complaint with the Commission. Ms. Millar further testified other complaints filed by the Alliance were settled on the same basis as that reached between the parties in the GS case. She indicated both sides felt that one year prior to the filing of the complaint was considered fair and 'a minimum'. (Volume 183, p. 23453).

438. Ms. Millar further testified that in the early 1980s there were ongoing discussions between the Alliance, Treasury Board and the Commission regarding the implementation of s. 11 of the Act. Ms. Millar described the Treasury Board's approach was to look at equal pay for work of equal value within the constraints of the existing classification system. A major drawback at the time was a lack of a universal job classification standard. Most of the occupational groups had different job classification standards to evaluate jobs. Throughout this early period the Alliance pursued individual complaints of wage disparities with the Commission and sought redress through the grievance process under the collective agreement. During this time period in 1981, the Alliance filed the s. 11 complaint on behalf of the HS group.

439. The Alliance's consultations during the early 1980s were with the staff of the Personnel Policy Branch of Treasury Board. This included Mr. John Campbell and Mr. Peter Darrach. Ms. Millar testified in these discussions the Alliance raised the possibility of formal complaints being filed on behalf of the CR occupational group or the Administrative Support category.

440. In these early years the Alliance and Institute representatives met with Mr. Campbell and other representatives from the Treasury Board to rate job fact sheets using the Aiken Job Evaluation Plan. Independent of these evaluations the Treasury Board evaluated existing benchmark positions from different classification standards using the Aiken Plan. In September 1982 the Alliance received partial point ratings for each benchmark position. According to Ms. Millar, both Mr. Campbell and Mr. Darrach told the Alliance they were not prepared to release all their point ratings because the union would have the ammunition with which to file equal pay complaints.

441. Nevertheless, pursuant to the Access to Information Act, the Alliance ultimately obtained the complete documents (Exhibit PSAC-96). In a document dated February 16, 1984, from Mr. John Campbell, Head, Equal Pay and Classification Research, Organization and Classification Division, Personnel Policy Branch, Treasury Board of Canada to the Heads of Public Service Bargaining Agents, the Alliance became aware of the evaluation results for the benchmark positions evaluated using the Aiken Job Evaluation Plan. The memorandum reads in part:

> These benchmarks, the English version of which was provided to you earlier, are designed for use in implementing Section 11 of the Canadian Human Rights Act (CHRA) in the Public Service...

442. Ms. Millar testified the Alliance did a "cursory analysis" of these results which, according to her testimony, showed jobs rated identically were receiving vastly different rates of pay. (Volume 183, pp. 23522-23).

443. Ms. Millar further testified the Treasury Board was reluctant to provide the bargaining unit with the results for fear the bargaining units would act on it. We refer to her testimony found in Volume 183 at p. 23510, line 15 to p. 23512, line 5:

> THE WITNESS: This was provided after we asked for and were successful in obtaining all the results through Access to Information. The previous partial release of results had gone to the heads of bargaining agents as well.
>
> THE CHAIRPERSON: So you knew that this exercise was going on.

THE WITNESS: Oh, yes. We consulted on it. We talked about it.

THE CHAIRPERSON: Consulted on it.

THE WITNESS: Talked about it.

THE CHAIRPERSON: And you didn't get all the results ---

THE WITNESS: No. Argued on it, yes.

THE CHAIRPERSON: --because they didn't want you to have them.

THE WITNESS: Pardon?

THE CHAIRPERSON: They didn't want you to have all the results.

THE WITNESS: That's right. They were quite open.

THE CHAIRPERSON: They didn't want you filing complaints.

THE WITNESS: They were quite open that they would justify complaints.

THE CHAIRPERSON: I see. So you got the information through Access to Information.

THE WITNESS: Yes.

THE CHAIRPERSON: Where was it going to go?

THE WITNESS: We were going to act on it.

THE CHAIRPERSON: You were going to file complaints. They knew you were going to file complaints? You told them?

THE WITNESS: Oh, absolutely. Yes. We were bargaining. We were bringing up equal pay at the bargaining table throughout this period.

444. Ms. Millar testified that during the Alliance's discussions with Mr. Peter Darrach about various aspects of the HS complaint they became aware of an initiative for a "category-by-category" approach to deal with equal pay for work of equal value. (Volume 183, p. 23513). According to Ms. Millar the Alliance found limitations in this approach. The Administrative Support category had a significant number of female employees with no male-dominated group within it.

445. Since December 1983, the Alliance had been advocating, through the efforts of Mr. Daryl Bean, President of the Alliance, to the representatives from Treasury Board for a broader scope of reviews.

446. According to Ms. Millar the Alliance continued to anticipate an announcement of a study or a joint union-management initiative by the Employer. Their counterparts at Treasury Board were speaking openly about an initiative. It was after the election in the fall of 1984 that the Alliance filed the CR occupational group complaint. Ms. Millar testified, in Volume 183, as to the reasons for filing the CR occupational group complaint in December of 1984. Her evidence is found at p. 23527, line 4 to p. 23531, line 10:

The election took place in September, in October my counterparts at Treasury Board were poised, I thought, ready to act, by November I was sensing a

relaxation. I thought perhaps the priority that was going to be given to equal pay was no longer there and I sensed a slackening of any motivation to continue. I visited the Human Rights Commission and we discussed proceeding with a complaint as it was absolutely necessary to act.

I also assured the Commission that I realized they could never investigate a complaint on behalf of nearly 100,000 public service employees and our intention was not to put pressure on the Human Rights Commission, it was to put pressure on Treasury Board to act. We developed this complaint wording jointly. We were asked by the Commission to be ---

Q. Before we get to the wording of the complaint, perhaps we should get the exhibit out. It's HR-10, Tab E.

You were telling us that there were discussions with Commission representatives before the complaint was drafted?

A. Yes. Well, the drafted complaint was reviewed by Commission legal counsel. We were asked not to include corrective action.

Q. You were asked by whom?

A. By the Commission staff in the equal pay unit. But we discussed corrective action of a universal classification plan approach which would deal with equal pay for work of equal value.

Q. You say you discussed a universal classification plan approach.

A. Yes.

Q. Would you help me with that? What ---

A. This complaint was not filed under section 11 alone. By the time of 1984/1985, we realized that classification and pay are inextricably tied together. There is no dividing line where you can say, "This is pay and this is classification." One affects the other.

The complaint was filed under sections 7, 10, and 11 as it was our firm belief -- and the Commission was of the same view -- that it was necessary to change the classification system, to change the artificial barriers between administrative support and administrative and foreign service, and to develop one consistent approach to job classification which went from bottom to top in the organization if we were ever going to realistically deal with equal pay for work of equal value. So, not only pay had to change, but the classification system had to change as well.

Q. This complaint identifies as the male comparator employees in the predominantly male PM, program administration, group.

A. Uh-huh.

Q. Why was PM selected as a comparator?

A. We discussed the viability of groups in the operational category, the technical and the administrative and foreign service. The program administration group

was a group that has similar work to many CR employees, it works in the same proximity, often the same offices, it works with the same legislation and the same knowledge base in many instances.

We thought it was key -- and this is a Commission view as well -- that if a complaint is being filed on a large number of employees, the comparator group should be equally large or a significant number of employees. The Commission has rejected complaints where a very small male group has been chosen as a comparator for a large female group.

It also had the advantage of being understood. We represent both program administration and the clerical group at the Public Service Alliance. I certainly did not want to choose a male group with another union, as I thought this was inappropriate.

We explained the nature of this complaint to both the male groups, the PMs and the CRs, and explained the intent of what we were doing as a union and where we hoped to be. By and large, we found the PM employees were very sympathetic to the similarities between the work of the CR and PMs and the lack of equivalence in pay between the two.

Q. You indicated that you were advised not to indicate any corrective action. What was the reason for that?

A. I can't be too be specific after this length of time. I can remember discussing with Ted Ulch that this complaint -- the Commission wished to leave the options wide open for settlement. Although we discussed where we were heading and I was of the view that we were of the same understanding, that we were looking for the same classification system from bottom to top for the public service, we were asked not to include the corrective action. [emphasis added]

447. We refer to Mr. Justice Hugessen's decision in Non-Public Funds, supra, wherein he elaborates more fully as to the evidentiary basis which supports the finding of a wage gap. He refers to the Employer's admission of the discriminatory wage practice which brought into play the presumption of the prior existence of a wage gap for a considerable period of time and to other evidence as well, at paragraph 40 at p. 95-96 as follows:

[40] In fact, of course, the complainant had more in its favour than a mere presumption. Mr. Sadler's evidence as to the extent of the wage gap prior to June 1, 1987, though described by the trial judge as an "educated guess", was relevant and admissible. Dr. Weiner's report also concluded that the adjustment methodology "can be applied beginning in 1986". (A.B., vol. II, p. 373). Finally, Mr. Marleau's study for the same period, though admittedly based on less reliable data, reached very similar conclusions and was before the Tribunal. This was more than just some evidence. It was uncontradicted and was the only evidence on the point. It was more than enough to serve as a basis for a decision in the

> claimant's favour. Neither the Tribunal nor the judge gave any valid reason for rejecting it. [emphasis added]

448. We believe the errors found by Mr. Justice Hugessen on the part of the Tribunal and the Trial Judge in Non-Public Funds, supra, are instructive in our deliberations on the question of retroactivity. Essentially Mr. Justice Hugessen found the Tribunal was wrong to have accepted that certainty was required in the evidence to establish the extent of the prior wage gap. The evidentiary burden is to be based on the ordinary civil burden of the balance of probabilities and the complainant is required to "show that his position is more likely than not." Secondly, the Tribunal must be governed by the rules requiring a purposive interpretation of human rights legislation. This applied to s. 53(2)(c) of the Act. An award made under this provision for what has taken place in the past should not be slanted toward the minimal, nor should the starting point be restricted to the moment the complaint is filed.

449. Lastly, Mr. Justice Hugessen found an error in the Trial Judge's emphasis on the distinction to be drawn between the existence of the discriminatory pay practice and the extent of a wage gap in s. 11 of the Act. He found the discriminatory practice referred to in s. 11(1) of the Act is itself defined in terms of a "difference in wages between male and female employees." (Non-Public Funds, supra, at paragraph 35). Respondent counsel acknowledged during argument that it is the wage gap that evidences the discriminatory practice prohibited by s. 11 of the Act. We refer to the Respondent's argument in Volume 257 at p. 34543, line 19 to p. 34544, line 20:

> MR. FRIESEN: That is a very important question, Madam Chair. Is there a difference between systemic discrimination under section 11 and the amount of the wage gap?
>
> THE CHAIRPERSON: Yes.
>
> MR. FRIESEN: In my submission, the answer is no, that under section 11 the systemic discrimination is the difference in wages.
>
> We can't show systemic discrimination in any other way than by showing a difference in wages between male and female employees. That is the only thing we can prove for purposes of section 11, what is the difference in wages, if any.
>
> Now, we have the Joint Initiative data and we will have a methodology from the Tribunal.
>
> Once we have the methodology, we will be able to calculate the wage gap. Let's be clear about this. The employer accepts that when we calculate the wage gap using a methodology that meets the requirements of the Act applied to the Joint Initiative data, if we calculate a wage gap on that basis, that proves the wage gap on a balance of probabilities for purposes of this case. So, there is no dispute about that.

450. We find the Commission has provided a reasonable estimate of the wage gap based on the job information collected in 1987. The evidence of Ms. Millar pertaining to the benchmark ratings obtained by the Treasury Board through the application of the Aiken Job Evaluation Plan in the early 1980s provides some evidence of the existence of a possible wage gap prior to the announcement of the JUMI Study in March 1985. However, the Tribunal notes Ms. Millar's

reference to a "cursory analysis" of the evaluation results obtained through Access to Information was given with no time frame as to when it was done, who did the analysis, what type of analysis was used, or the specific outcome. Based on the kind of scrutiny we have applied to the wage gap analysis submitted before us in respect of the s. 11 complaints, we are not satisfied this evidence presented by the Alliance is sufficient to support the period of retroactive adjustment requested.

451. We accept the Commission's submission that the burden of proof must be governed by a standard of reasonableness. This standard of reasonableness is consistent with this Tribunal's Phase I decision, supra, in regard to assessing the reliability of the job evaluation results as a basis for calculating a wage gap. We refer to paragraph 187 at pp. 50-51 which reads as follows:

> 187. What is apparent from these comments and from the nature of the subject is that equal pay for work of equal value is a goal to be striven for which cannot be measured precisely and which ought not to be subjected to any absolute standard of correctness. Moreover, gender-neutrality in an absolute sense is probably unattainable in an imperfect world and one should therefore be satisfied with reasonably accurate results based on what is, according to one's good sense, a fair and equitable resolution of any discriminatory differentiation between wages paid to males and wages paid to females for doing work of equal value.

452. The past practice in pay equity settlements in allowing for a twelve month period prior to the filing of a s. 11 complaint is a relevant factor in support of the claim for a prior retroactive adjustment. We understand it was at the suggestion of the Commission that the parties agreed to a one year retroactive period for claims for lost wages in earlier s. 11 complaints. Support for the Commission's approach may be found in the wording of s. 41(e) of the Act which reads as follows:

41. Subject to section 40, the Commission shall deal with any complaint filed with it unless in respect of that complaint it appears to the Commission that

> (e) the complaint is based on acts or omissions the last of which occurred more than one year, or such longer period of time as the Commission considers appropriate in the circumstances, before receipt of the complaint.

453. We referred earlier to the paper of Mr. John Campbell dated in 1983 (Exhibit PSAC-94). (see Section I, B, Paragraph 9). In his paper, under the heading "Early Action", he refers to the period of time following the passage of the Act and specifically s. 11 of the Act. He highlights testing results done by the Employer using the Aiken job evaluation plan. He cites wage gap statistics between male and female earnings and suggests a possible wage gap of 10% represented by sex discrimination within the Public Service. That portion of his paper is reproduced as follows:

Early Action

> At the onset in 1978, when the Canadian Human Rights Act was proclaimed, a number of procedural questions and requests for additional guidelines were raised by the employer to clarify ways in which it would be implemented. The Canadian Human Rights Commission generally elected to take a case-by-case approach to the establishment of further guidelines.

In the Public Service there are some 70 occupational groups, each with its own customized evaluation plan. The majority of the groups form individual collective bargaining units. An early requirement was seen for a "universal" job evaluation plan capable of evaluating quite different types of work - for example, labour and trades, clerical, technical, professional, and supervisory on a common scale. To address this need, the employer adopted, with the assistance of the management consultant firm of Thorne, Stevenson & Kellogg, a generic, or universal point factor plan -- the Aiken Plan. This available and proven plan, which had been widely used in Canada for more than 30 years, required minor adaptation for use in the Public Service and to meet the requirements of the CHRA. The only substantive change was increased recognition of mental demands (alertness and attention) to achieve parity with the weight given to physical demands. To date, the commission and the larges union have accepted the Aiken Plan in the settlement of complaints. The plan is reserved for equal pay purposes and is not used in normal compensation determination in the Public Service.

Early testing of the Aiken Plan on a small sample of Public Service jobs tentatively indicated that:

1. A wide spread in pay existed for work of equal value within the same sex (that is, not sex-related).

2. Comparisons on different bases -- for example, between individuals, pay levels, and occupational groups -- would give different results.

3. An important question would arise as to the appropriate target that should be used for wage adjustment -- for example, comparison of females with the lowest, average, or highest-paid males, doing work of equal value.

4. More data and additional guidelines or case experience would be required before corrective action could be taken.

In North America, women are paid about 60 percent of men's earnings on an annual basis. The literature appears to suggest that of the 40 percent gap, about one-quarter (or 10 percent, requiring about a 15 percent increase in pay to correct) could be represented by sex discrimination in pay for work of equal value. The early Aiken Plan test data indicated possible similarities within the Public Service. The remaining 30 percent gap could be attributed to the differing mix of jobs held by women as opposed to men and other factors addressed by or related to affirmative action, women's aspirations, cultural job segregation, differing hours worked, and so on. The Public Service is conducting pilot affirmative action programs in five departments.

454. Later in his paper Mr. Campbell refers to the progress made in settling s. 11 complaints, "particularly in terms of acceptance of the Aiken universal job evaluation plan, acceptance of a total compensation methodology for costing the aggregate of compensation elements and agreement on the effective date for settlement of a complaint." He then outlines how the issue of retroactivity had been reached at p. 48:

...Settlement of early cases resulted in the employer's obtaining an agreement from the Commission that for application of equal pay within the Public Service the effective date for

settlement of a complaint would be "...the earlier of the date the employer was officially made aware of the discriminatory practice, or one year prior to the filing of the complaint with the Canadian Human Rights Commission."

455. In the early 1980s the Commission had not developed guidelines for dealing with group complaints. During that period the Respondent, through representatives from the Treasury Board, communicated with Miss Claude Bernier, Director, Complaints and Compliance Branch, Canadian Human Rights Commission about the need for guidelines to assist them in the large group study it intended to undertake. Extracts from written correspondence, dated March 24, 1983, between the Treasury Board and the Commission are reproduced as follows:

This letter is in confirmation to our subject discussions on March 23, 1983.

> As was outlined, approval has been received to undertake a program of proactive action in the Public Service with respect to the identification and elimination of sex bias in pay pursuant to Section 11. As a starting point, a category-wide approach has been approved in which a sampling of male- and female-dominated groups in the Scientific and Professional Category will be evaluated using the Aiken Plan to determine relative pay for work of equal value between groups of opposite sex. In addition, a review of the female-dominated Language Instructor and Teachers' Aide Sub-Group in relation to the Physical Education Instructor Sub-Group would be undertaken along with a similar review of the Bindery and Cold Type Composition Sub-Groups in relation to male-dominated sub-groups in the Printing Group.
>
> Proceeding with these studies, however, was made contingent on the Employer obtaining clear and adequate guidelines or understandings on the part of the CHRC as to implementation of results and as to protection from associated complaints. These guidelines or understandings are listed in Appendix 'A' and we have attempted to further clarify them as a result of our discussion. As we indicated to you, items 1 and 2 are imperative and adequate assurance is required on the remainder. With respect to the definition of sex dominance (item 3), Mr. Campbell will be providing more detail in writing to Mr. Ulch in connection with the Hospital Services complaint.
>
> APPENDIX 'A'
>
> CHRA, SECTION 11 GUIDELINES OR UNDERSTANDINGS REQUIRED TO SUPPORT A PROACTIVE IMPLEMENTATION APPROACH BY THE EMPLOYER
>
> 1. A broader acceptance of the averaging principle as applicable to inter-group comparisons;
>
> 2. Subsequent to general correction, no individual or group complaints to be entertained;
>
> 3. An appropriate definition of male- and female-dominance of a group -- percentage of females and duration;
>
> 4. The Employer's job evaluating ratings using the Aiken Plan to be accepted or some satisfactory method of resolution of disputed evaluations to be established;
>
> 5. New complaints filed on behalf of employees whose positions are contained in the area(s) of study are to be held in abeyance. If resulting proactive action is

> approved by the CHRC as removing discrimination, such complaints would not be proceeded with;
>
> 6. Equalization adjustments for group complaint settlements in the category in place prior to an agreed systematic proactive settlement for all groups in the category would be subject to upward or downward revision as required on integration with the category-wide action to remove discrimination...

456. A practical question arises in view of Mr. Justice Hugessen's remarks about what is a reasonable time frame to be "fixed around any claim for retroactive pay." Bearing in mind, while the employer is most likely to have access to job values and wages at any given time, the further back in time one goes the weaker becomes the presumption that systemic discrimination will produce the same effects.

457. A retroactive adjustment prior to April 1, 1987 was provided for in the equalization payments of 1990 by the Treasury Board. We refer to Exhibit HR-41, a letter written by the then President of the Treasury Board, Mr. Robert de Cotret to the then Chief Commissioner of the Commission, Mr. Maxwell Yalden, dated January 26, 1990. In that correspondence, Mr. de Cotret refers to the implement date for the unilateral equalization payments payable retroactively to cover the period April 1, 1985 to March 31, 1990. The equalization payments were calculated using the job evaluations of the JUMI Study which were based on 1987 job information.

458. The Commission alleges the Respondent has failed to call evidence to rebut an inference that discrimination existed prior to the date of the JUMI. The Alliance contends the decision of the Federal Court of Appeal in Non-Public Funds, supra, is proper authority for its contention that the Respondent failed to lead evidence that the wage gap did not exist prior in time to the period claimed. The Alliance contends, on the basis of Non-Public Funds, supra, that the burden of proof shifted to the Respondent to show changes to jobs or wages that would change the wage gap.

459. In reply the Respondent contends a prima facie case of a wage gap does not discharge the onus of proof on the Commission and the Alliance to prove a reliable estimate of the wage gap prior to 1987-88, the time frame in which the job information was collected for the JUMI Study. The Respondent argues the shifting of the onus of proof that arose in Non-Public Funds, supra, was directly related to the admission by the Employer in that case that a discriminatory practice had existed in the past. It was for this reason, according to Respondent counsel, that Mr. Justice Hugessen applied the shifting burden of proof recognized by McIntyre J. in Simpsons-Sears, supra, that arises in the context of civil and human rights cases.

460. The relevant remarks of Mr. Justice Hugessen are found in paragraph 39 of his decision at p. 95 and reads as follows:

> [39] While that statement was made with specific reference to adverse effect discrimination, it clearly applies with equal force to a case of systemic pay equity discrimination. The complainant here has made far more than a prima facie case; it has conclusively established by the employer's own admission that pay discrimination contrary to s. 11 existed prior to June 1, 1987, and that there was, therefore, a wage gap prior to that period. Since the discrimination is admittedly

> systemic, there is also a strong presumption that it, and the resultant wage gap, have existed for a considerable period of time. That presumption is enough to establish a prima facie case in the complainant's favour that the wage gap prior to June 1, 1987 was the same as it was after that date. The burden shifted to the employer to show any changes in the jobs concerned or in the wages paid that would have the effect of changing the wage gap. To paraphrase the words of McIntyre, J., previously quoted, it is the employer who will be in possession of any necessary information to show such changes; it is he who must bear the burden.

461. The fact remains that Mr. Sunter's analysis has established a wage gap as of April 1, 1987. We draw particular attention to Mr. Justice Hugessen's statement in the above passage: "Since the discrimination is admittedly systemic, there is a strong presumption that it, and the resulting wage gap, have existed for a considerable period of time." We believe the logic of that statement would also apply in the case where the complainant has proven a prima facie case of discrimination contrary to s. 11 of the Act.

462. The Respondent chose neither to cross-examine Ms. Millar in respect of her evidence on this matter, nor to lead its own evidence on this subject. Based on our analysis we believe a retroactive wage adjustment commencing as of the date of the announcement of the JUMI Study to be reasonable and fair. That would set the date at March 8, 1985.

B. Method and Calculation of Payment

463. The parties propose different methods of payment to implement the pay equity adjustments. The Respondent requests a one time retroactive adjustment. That adjustment would use the job evaluations based on the job information gathered in 1987. For the Respondent's methodology pay equity adjustments calculated using this job information would then be folded into the base wage rates of 1987-88. Subsequent economic increases in wages would be added to the adjusted wages.

464. The Alliance and the Commission prefer a methodology of recalculating the wage gap on an annual basis back to the date of commencement of the retroactive period and up to the present time. With this approach the wage gap is calculated for each year based on the wage rates in effect for each year. The job evaluation results of the JUMI Study are used in each annual recalculation to reflect the value of work. The Commission and the Alliance submit the benefit of the recalculation is to provide a more precise calculation of the wage gap. They submit it takes into account adjustments to wages from annual economic increases that could increase or decrease the wage gap.

465. The Commission expressed concern that failing to recalculate the wage gap for each year could adversely impact on the female-dominated occupational groups and result in an underestimation of the wage gap. Although the annual percentage increase may be the same for both male-dominated and female-dominated occupational groups, the male-dominated occupational group may, for example, receive a higher adjustment given their higher base salary.
466. On the other hand Treasury Board raised some practical considerations of an annual recalculation such as possible changes in gender composition of some of the occupational

groups. The Respondent submits annual recalculations are unreliable and can create inconveniences and hardships for beneficiaries. Respondent counsel argues the wage gap could fluctuate from year to year and employees should not bear the hardship of having a reduced pay cheque.

467. Under the various collective agreements covering employees represented by the Alliance, members of the union are entitled to a number of pay related benefits and premiums, such as maternity allowance, overtime premiums and disability insurance payments. These benefits are referred to by the Commission and the Alliance as pay for all purposes. There are also superannuation benefits. All of these benefits are tied directly to the amount of the wage scales and require recalculation for the retroactive period. This presents an extremely complex situation. The Respondent submits there are administrative considerations in calculating adjustments to these benefits. The Tribunal heard no evidence in this respect. The Respondent requests the issue of related benefits be deferred to Phase III of these proceedings.

468. The evidence demonstrates that the Respondent's 1990 unilateral equalization payments were recalculated for each fiscal year of the retroactive period using the 1987 job information and the wage rate in effect for each year in accordance with the Alliance's and the Commission's preferred method of payment. The evidence also shows that the method of payment used in the pay equity settlements between the Respondent and the Alliance also accords with an annual recalculation of the wage gap.

469. We believe the retroactive calculations should reflect the actual size of the wage gap for the retroactive period. Adjustments must be reduced by the amount of the unilateral payments of January 1990 made by the Treasury Board and any other pay equity adjustments that are in effect. We find the Commission's and Alliance's method of payment which requires an annual recalculation of the wage gap to be more appropriate in the circumstances. The payments are to be calculated for the period from March 8, 1985 to the date of this decision. After the date of our decision the pay equity adjustments are to be folded into the base wages and become an integral part of the wages.

470. In view of the complexity the method of payment has on related benefits and the lack of sufficient evidence to support a ruling at this time, we defer a decision on the manner in which the method of payment affects all related benefits. We refer this matter to Phase III of these proceedings to be decided with the issue of indirect benefits.

C. Interest

471. It is well established that it is within the power of the Human Rights Tribunal to award interest on lost wages. (see Morgan, supra, Uzoaba, supra, Grover, supra, and Canada (Attorney General) v. Rosin, [1991] 1 F.C. 391 (F.C.A.)).

472. The Alliance and the Commission request interest in respect of lost wages be paid in the following manner:

(i) that it be calculated semi-annually at the prejudgment rate specified in the Ontario Courts of Justice Act, R.S.O. 1990, c. C.43;

(ii) that the rate of interest calculated respecting the complaints of the CR occupational group be the rate of interest applicable to employees in the remaining five female-dominated occupational groups;

(iii) compound interest to be awarded rather than simple interest; and

(iv) that postjudgment interest be paid to employees in the manner specified in the Courts of Justice Act.

473. The Alliance refers to the definitions contained in s. 127 of the Courts of Justice Act relating to its claim. They are reproduced as follows:

Section 127

"bank rate" means the bank rate established by the Bank of Canada as the minimum rate at which the Bank of Canada makes short-term advances to the banks listed in Schedule I to the Bank Act (Canada);

"postjudgment interest rate" means the bank rate at the end of the first day of the last month of the quarter preceding the quarter in which the date of the order falls, rounded to the next higher whole number where the bank rate includes a fraction, plus 1 per cent;

"prejudgment interest rate" means the bank rate at the end of the first day of the last month of the quarter preceding the quarter in which the proceeding was commenced, rounded to the nearest tenth of a percentage point;

474. The Alliance and the Commission submit the time frame for fixing of the interest rate should coincide with the filing of the CR complaint of December 1984. In applying the above definition of "bank rate" and "prejudgment interest rate" under the Courts of Justice Act, the applicable interest would be that specified by the Bank of Canada effective November 1984. According to the Tables appended to the Courts of Justice Act, the fixed rate is noted to be 12%.

475. Both the Commission and the Alliance submit that the Respondent has had the benefit and use of the money and the opportunity to be enriched by it. In support of this, the Commission and the Alliance rely on a decision by Lord Denning, M.R. in Wallersteiner v. Moir (No. 2), [1975] 1 All E.R. 849, in which His Lordship applies the following reasoning at p. 856 in awarding compound interest:

...in equity interest is awarded whenever a wrongdoer deprives a company of money which it needs for use in its business. It is plain that the company should be compensated for the loss thereby occasioned to it. Mere replacement of the money - years later - is by no means adequate compensation, especially in days of inflation. The company should be compensated by the award of interest...But the question arises: should it be simple interest or compound interest? On general principles I think it should be presumed that the company (had it not been deprived of the money) would have made the most beneficial use open to it...Alternatively, it should be presumed that the wrongdoer made the most beneficial use of it. But, whichever it is, in order to give adequate compensation,

> the money should be replaced at interest with yearly rests,[i.e.,] compound interest.

476. On the other hand, the Respondent submits, any award of interest ought to be for simple interest in the absence of evidence of special circumstances calling for compound interest. The Respondent further submits the interest awarded should be computed from time to time at the contemporary rate to avoid a windfall by the employees affected. The Respondent points to the fluctuations in interest rates since the mid-1980s. For a number of years it was significantly higher than the rate in place since 1995.

477. There is no provision in the Act per se providing for an award of interest. It has been held by the Courts, however, that s. 53(2)(c) which is concerned with wage compensation, permits awards of interest on any amount awarded for lost wages. The subject of interest was addressed by Mr. Justice Marceau of the Federal Court of Appeal in Morgan, supra. Mr. Justice Marceau expressed his views on an award of interest under s. 53 of the Act. We find these views helpful. Relevant passages of his decision are reproduced as follows beginning on p. 418:

> (i) There is no specific provision expressly granting human rights tribunals the power to give interest and this Court has not yet been faced directly with the question. Nevertheless, I agree with Mr. Justice MacGuigan that the tribunals were right in considering that their power to assure the victim adequate compensation entitled them to award interest. This is indeed a common sense conclusion that this Court had no difficulty to apply in its decisions in Canadian Broadcasting Corp. v. C.U.P.E., [1987] 3 F.C. 515 and Canada (Attorney General) v. Rosin, [1991] 1 F.C. 391. It should be carefully noted, however, that in this perspective the awarding of interest is not left to the discretion of the tribunal nor is it solely based on the general idea applicable in tort or contract liability claims that the defendant has kept the plaintiff out of money while he has had the use of it himself. It must be required if, but only if, it can be seen to be necessary to cover the loss. This reflection is at the basis of my reaction in coming to the other questions relative to interest.

478. With respect to the rate of interest, Mr. Justice MacGuigan, who delivered a dissenting opinion, held as follows at pp. 438-39:

The Review Tribunal substituted a different rate, saying simply that (at page D/57) "With regard to the rate of interest it should be in accordance with the applicable rate of interest from time to time of Canada Savings Bonds on the amount outstanding from time to time during the period of compensation." This apparent fiat, on the part of the Review Tribunal, is clearly wrong in reversing the Tribunal without stated justification. However, it is less easy to establish what rate should be allowed.

> One thought advanced was that the best rate would be the Bank of Canada prime rate, as a compromise between the lower Canada Savings Bonds rate and the higher commercial bank prime rate. I accept that point of view, and indeed that seems to have been the preferred rate of the initial Tribunal except for the "chore" involved.
>
> It is not, in my opinion, possible to say that only the Bank of Canada prime rate is permitted under the legislation, since the Act does not even expressly permit

> interest. The rate to be set must remain within the discretion of a tribunal, but the Bank of Canada prime rate should be taken as the usual rate to be established, except when the tribunal finds special circumstances in play.
>
> On the choice of simple or compound interest by courts, Professor S.M. Waddams, The Law of Damages, 1983, at page 512, has this to say:
>
> Compound interest has not generally been awarded at common law and is specifically excluded by the British Columbia and Ontario legislation following the English statute in this respect. It is understandable, in view of the slow recognition of simple interest, that compound interest has not been awarded in the past. However, there seems in principle no reason why compound interest should not be awarded. Had prompt recompense been made at the date of the wrong the plaintiff would have had a capital sum to invest; he would have received interest on it at regular intervals and would have invested those sums also. By the same token the defendant will have had the benefit of compound interest.
>
> I agree in that, in my view, this choice must remain within the discretion of a tribunal, but simple interest should be taken to be the norm except in special circumstances identified and justified by the tribunal. To the extent that there was interest at common law, simple interest was the standard, and here there is the additional factor that the Court Order Interest Act in British Columbia (R.S.B.C. 1979, c. 76, s. 2), the province where this case arose, provides for simple interest. [emphasis added]

479. The question arises as to whether there are circumstances surrounding these complaints or evidence before this Tribunal that would permit an award of compound interest. The Alliance submits the circumstances in the complaint before this Tribunal are distinct from the situation in Morgan, supra, where the Human Rights Tribunal found the complainant was deprived of the opportunity of securing a job in the Armed Forces as opposed to simply losing the possibility for employment and had to fashion a remedy based on what Mr. Morgan would have earned. Unlike the complainant Mr. Morgan, the Alliance contends the individuals affected by the s. 11 complaint have been earning income at a lesser rate than they are entitled and are therefore deprived of making use of money that they were entitled to receive.

480. The circumstances which gave rise to an award of compound interest by the original Tribunal are that as a result of a serious head injury, the Canadian Armed Forces gave Mr. Morgan a medical discharge in 1978. He applied to re-enroll in 1979 was rejected in 1980 and again in 1982, as he was not considered medically fit. He filed a complaint under the Act in 1983 and a Tribunal was appointed five years later. The Tribunal awarded compensation for lost wages from the date Mr. Morgan could have re-enrolled after making an adjustment of two and one half years for failure to lodge a complaint in a timely fashion to the date of the hearing. It further awarded him interest, compounded semi-annually, on the compensation for lost wages at the prime rate charged by the Canadian Imperial Bank of Commerce, special compensation of $1,000 and interest for hurt feelings.

481. The Tribunal's decision was appealed to a Review Tribunal. The majority of the Review Tribunal agreed that Mr. Morgan should have been reinstated but held that where an Order of reinstatement is made, the compensation for lost wages should continue until the Order is

complied with. The majority took into account the excessive delay in bringing the complaint and because of that found the compensation period should only begin twenty-seven months after the discriminatory act. The dissenting member held that only such part of the loss as was reasonably foreseeable was recoverable so there was no reason not to start the date of compensation on the date Mr. Morgan would have actually been re-enrolled. Further, the minority member held the period of compensation could not extend beyond what appeared reasonable, or some three years and five months afterwards.

482. The Federal Court of Appeal held that the initial Tribunal and the majority members of the Review Tribunal had erred with respect to the assessment of damages, with respect to the determination of the period of compensation and accepted the minority member's determination. The Court further rejected the award of compound interest. Mr. Justice Marceau found no circumstances to justify such an award. We refer to his remarks at p. 420:

> (iii) As to whether it was right for the tribunals to award compound interest, the answer must be arrived at taking the same approach. Compound interest is warranted if, but only if, it can be deduced from the evidence or the circumstances of the case that it was required to cover the loss. I quickly agree with my colleague that that was certainly not the case here.

483. The evidence before the Tribunal does not support a finding of deprivation or loss of opportunity by individual employees of the Government represented by the Alliance. Moreover, if there was deprivation, loss of opportunity or economic hardship it arose in a significant sense from circumstances within the control of the parties. Here we refer to the testimony of Ms. Millar regarding the history of the filing of the complaint. That complaint was filed initially and in part because the Alliance assumed the Government of the day was engaged in delaying tactics in initiating the proactive measure to implement pay equity. This perception was shared by the Commission which encouraged and itself engaged in applying pressure on the Government to announce the pay equity initiative. After the JUMI was announced two years passed while the parties negotiated the term of the JUMI study. After the study commenced it was marked, indeed flawed to some degree, by the intransigence of the parties. The adversarial attitude and behaviour of the parties was endemic and a matter of great concern to the Willis consultants. It led eventually to the breakdown of the JUMI Study. (see Phase I decision, supra).

484. The rate to be set for an award is at the discretion of the Tribunal. No special circumstances have, in our view, been demonstrated which would justify an award of compound interest to the Complainant.

485. In addition, the nature of the discrimination is a factor that must be given due consideration. The remedial goal of the Act is not to lay blame. We believe an award of compound interest in this case would have the effect of laying blame or punishing the Respondent. We also believe the proactive and laudable measures by the Government in instituting the JUMI should be recognized.

486. In our opinion simple interest should be awarded to cover the employee's loss. It is to start to run from the commencement date of the retroactive period, March 8, 1985. Due to the fluctuating interest rates over the past years it is to be calculated semi-annually using the Canada

Savings Bonds rate that was in effect on March 1 of each year that a retroactive wage adjustment is calculated.

D. Hurt Feelings/Special Compensation

487. It is submitted on behalf of the Commission that individuals who have been discriminated against contrary to any provision of the Act have, by definition, suffered hurt feelings. In the context of the s. 11 complaints the Commission submits that all employees who have worked within a discriminatory system alongside individuals performing work of equal value but receiving greater wages are entitled to be compensated for their suffering in respect to their dignity and self-respect. The Commission's view is that the minimal $5,000 entitlement under the Act is an acknowledgement to the victims of discrimination that loss of self-respect and value has occurred. The Commission refers to s. 53(3)(b) of the Act, which it contends, fully addresses the circumstances of these complaints. That section reads:

> 53(3) In addition to any order that the Tribunal may make pursuant to subsection (2), if the Tribunal finds that
>
> (a) a person is engaging or has engaged in a discriminatory practice wilfully or recklessly, or
>
> (b) the victim of the discriminatory practice has suffered in respect of feelings or self-respect as a result of the practice,
>
> the Tribunal may order the person to pay such compensation to the victim, not exceeding five thousand dollars, as the Tribunal may determine.

488. Although it is customary in individual complaints to have the complainant testify as to his/her hurt feelings the Commission submits, given the broad reach of these complaints which covers thousands of federal public servants, it is proper to draw inferences that the existence of undervaluation of female work results in a sense of low self-esteem and diminishing self-respect. Authority for that proposition, according to the Commission, is found in the decision of the Ontario Pay Equity Tribunal in Ontario Nurses' Association v. Regional Municipality of Haldimand-Norfolk (No. 6) (1991), 2 P.E.R. 105, (O.P.E.T.). Commission counsel refers to the following comments by the Tribunal found at p. 3:

9. It is increasingly acknowledged that the persistence of systemic wage discrimination acts as a barrier to the full and equal participation of women in the workforce. The Supreme Court of Canada in Janzen v. Platy Enterprises Limited [[1989], 1.S.C.R. 1252 at 1277] cited with approval from Bell v. Ladas [(1980), 1 C.H.R.R. D/155 at D/156], in addressing related issues of sexual harassment and pay discrimination:

> The evil to be remedied is the utilization of economic power or authority so as to restrict a woman's guaranteed and equal access to the workplace and all of its benefits ... Where a woman's equal access is denied or when terms or conditions differ when compared to male employees, the woman is being discriminated against.
>
> One such benefit is fair wages. A fair wage is important to the well-being of workers, not only in meeting the necessities of life, but in guaranteeing a sense of dignity and of recognition for the value of the work they perform...

489. It is the Commission's position that individuals in a 'group' s. 11 complaint should not be required to come forward to provide individual testimony. That, it says, creates a standard too difficult for the complainant to meet.

490. The Alliance submits the Respondent has been reckless about the extent of the wage gap because it knowingly is paying its employees contrary to s. 11 of the Act. The Alliance refers to the testimony of Ms. Millar concerning the Treasury Board's reluctance in releasing job evaluation information in the early 1980s that support s. 11 violations. The Alliance also relies on the evidence of Mr. Ranger who testified about its efforts to try and resolve pay equity issues at the bargaining table. Moreover in the years subsequent to the wage freeze of 1991 the Alliance has been unable to address this issue at the bargaining table.

491. The Alliance alleges the different methodologies the Respondent has adopted since the commencement of the JUMI Study is evidence of the Respondent's reckless approach in the determination of the extent of its liability under s. 11 of the Act. It contends this is particularly apparent in the application of the Respondent's proposed lowest paid male comparator or deemed group methodology. That methodology results in a wage gap of even lower magnitude than the wage gap calculated using the Respondent's methodology in Exhibit HR-185, the unilateral equalization payments.

492. The Alliance contends the focus of the discrimination is not only on the conduct of the Respondent but how it impacts the victims. The Alliance argues with the exception of the unilateral payments in 1990 employees have been waiting for approximately ten years to receive compensation. The Alliance argues that during this time employees have experienced lost opportunities that reflect lesser funds to pay for holidays, inability to reduce tax liabilities through RRSP contributions and living with the knowledge that they are being paid less than their male counterparts contrary to human rights legislation. Furthermore the Alliance contends employees are sincerely interested in the case and do not view it as simply a passing matter. That, the Alliance claims, is very distressing for the people affected. Thus, the Alliance contends, the Tribunal is entitled to draw inferences the individuals affected have suffered in respect of hurt feelings and loss of self-respect, bearing in mind the length of time and the magnitude of the wage gap. It claims that it is reasonable to recognize employees have suffered in a manner contemplated by s. 53(3)(b) of the Act.

493. The Alliance requests compensation payments in the amount of $5,000 per employee which, in its view, cannot properly eradicate the impact of so many years of underpayment for employees in the six female-dominated occupational groups that comprise the complainant groups.

494. The Respondent's position is that there is no evidence whatsoever before the Tribunal for an award for hurt feelings. In the Respondent's view the nature of systemic discrimination is not the kind of discrimination that leads to hurt feelings. On the contrary, the Respondent contends, the individuals who entered the Public Service did so voluntarily knowing the wage rates. Their decision to work in the public system was made by choice.

495. The Respondent further contends by its very nature systemic discrimination arises through systems, through pay plans, without any intent to discriminate. Therefore there is no reason for individuals to feel offended or hurt, or to suffer hurt feelings and loss of self-respect. The Respondent argues it is not appropriate for the Tribunal to make an inference that all members of the group have reacted in a certain way because it is possible that female employees in the groups did not suffer any sense of loss of dignity. In particular the Respondent refers to the Human Rights Tribunal decision in Uzoaba, supra, at pp. 94-95 as setting out the evidentiary requirement as a basis for a finding of special compensation pursuant to s. 53 of the Act. In that case, the Tribunal adopted the comments of the Human Rights Tribunal in Morgan v. Canadian Armed Forces (1989), 10 C.H.R.R. D/6386. In Uzoaba, supra, the Tribunal quotes from the Morgan decision, supra, as follows:

> I do not think that the evidence of the Complainant's loss of self respect and hurt feelings is anywhere near the level of hurt feelings, humiliation and embarassment that a person suffers who has been discriminated against in public on the basis of race, religion, colour or sex and particularly where there may have been repetitions of the prohibited practice and there is evidence of either physical or mental manifestations or stress, caused by the hurt feelings of (sic) loss of self respect. In my opinion, the high end of the monetary scale is more appropriate for these latter types of cases. (at p. D/6403) [emphasis added]

496. We are of the view that an entitlement under s. 53(3)(b) of the Act requires an evidentiary basis outlining the effects of the discriminatory practice on the individuals concerned. An award for hurt feelings is personal and is usually awarded in the context of direct discrimination. During the course of a hearing a tribunal will assess entitlement after hearing from individuals about the effects of the discrimination upon him or her. (see R. v. Cranston (1997), T.D. 1/97 (C.H.R.T.)). In this manner the Tribunal is able to observe the complainant's demeanor while testifying and come to some conclusion whether, in the circumstances, an award for hurt feelings is called for. In our view the impact of delays giving rise to disappointments, frustrations, maybe even sadness or anger, although legitimate reactions, do not measure up, in our opinion, to the degree and extent of hurt feelings and loss of self-respect that s. 53(3)(b) is directed towards remedying.

497. The discriminatory practice in this case has its genesis in societal attitudes and history, shared by both males and females. Attitudes about female work are undergoing change with increased awareness, education and legislation. The problem here is systemic and it has occurred in the Employer's pay system. To grant the Commission's and the Alliance's request would amount to an award for hurt feelings, en masse, which is not, in our view, what is contemplated by s. 53(3)(b) of the Act.

498. We do not doubt some Complainants have experienced a sense of loss, which in some cases may be felt more strongly by some than others. We also appreciate the impracticality of individuals in this case testifying before the Tribunal as to the effects of the discriminatory practice upon them. However, these factors cannot compel us to make an award, en masse, under s. 53(3)(b).

E. Costs

499. The Alliance requests, pursuant to the provisions of s. 53(2)(c) of the Act, an award in its favour for legal costs, including fees and disbursements associated with the adjudication of these complaints. The Alliance asks the Tribunal to grant an Order for Costs on a solicitor/client basis in accordance with the tariff prescribed under the Ontario Courts of Justice Act and the Rules of Civil Procedure.

500. In the alternative, the Alliance requests the Tribunal to grant an Order of Costs in its favour on the basis of its reasonable legal expenses including disbursements.

501. The Alliance submits the rationale for an order of legal costs lies in the nature of the remedies provided under the Act which is to fully and adequately compensate for the discriminatory practice. The Alliance relies on the decision of the Human Rights Tribunal in Grover, supra. In that case the Tribunal ordered the respondent to pay the complainant's legal costs pursuant to the assessment of the costs under the Federal Court Scale. The Tribunal made its award in accordance with s. 53(2)(c) of the Act. Pursuant to that provision the Tribunal found it had the power to compensate "for any expenses incurred by the victim as a result of the discriminatory practice." The Tribunal's decision was affirmed by the Federal Court in 1994.

502. Alliance counsel also refers to a decision of the Federal Court Trial Division in Canada (Attorney General) v. Thwaites (No. 2) (1994), 21 C.H.R.R. D/224 (F.C.T.D.). That case concerns an appeal by the Attorney General of Canada from the decision of a Canadian Human Rights Tribunal which found the Armed Forces had discriminated against the complainant because of a disability. As part of the award the Tribunal ordered compensation to the complainant for the cost of counsel. On appeal, the Federal Court Trial Division found this award to be appropriate. The relevant passage from Mr. Justice Gibson's decision is found at pp. D/249-50 and reads as follows:

> [39] I refer to the authority under para. 53(2)(c) of the Canadian Human Rights Act quoted above to award compensation for expenses incurred by a victim, in this case Thwaites. I find no reason to restrict the ordinary meaning of the expression "expenses incurred." Costs of counsel and actuarial services incurred by Thwaites are, in the ordinary usage of the English language, expenses incurred by Thwaites. The fact that lawyers and judges attach a particular significance to the term "costs" or the expression "costs of counsel" provides no basis of support for the argument that "expenses incurred" does not include those costs unless they are specifically identified in the legislation. On the basis of the principle that the words of legislation should be given their ordinary meaning unless the context otherwise requires, and finding nothing in the relevant context that here otherwise requires, I conclude that the Tribunal did not err in law in awarding Thwaites reasonable costs of his counsel including the cost of actuarial services.

503. The Commission takes no position on the question of costs.

504. The Respondent does not call into question the right of the Union to represent the employees in this complaint. (Volume 258, p.34827) However the Respondent contends the s. 53(2)(c) provision can only award compensation for expenses incurred by the "victim" as a result of discrimination. In this case the Respondent submits the Alliance is not the victim but

represents the victim and is paid for its services by the union dues to which the complainant employees, as well as other employees, are required to contribute. These other employees include male and female employees in other occupational groups.

505. The Respondent also requested that the Tribunal consider the incidents during the JUMI Study involving behaviour of Alliance members which "threatened the foundation of the JUMI Study from the beginning and contributed in no small measure to the resulting difficulties." (see Phase I decision, supra, paragraph 732). The Respondent further contends s. 53(2)(c) of the Act does not expressly provide a Tribunal with the authority to award the costs of conducting litigation. For example, the Respondent suggests if a Tribunal finds a complaint is unsubstantiated, it does not have authority to award costs to the party against whom the complaint was made. Thus, the Respondent argues, costs of litigation ought to be awarded where there is evidence of a necessity to compensate the victim for any expenses incurred by the victim as a result of the discriminatory practice.

506. Lastly, the Respondent submits the Tribunal should consider the discriminatory practice alleged is unintentional and that the Respondent voluntarily took proactive measures to identify and correct for any such discrimination. In this regard the Respondent contends the Complainant bears a significant share of responsibility for the difficulties during the JUMI Study and pursued this matter through litigation rather than by way of agreed resolution.

507. After carefully considering the arguments, having regard to the systemic nature of the discrimination, the complexity of these complaints and the legal and advocacy role of the Alliance in these proceedings, we do not consider an award of costs to be appropriate and therefore decline to make one.

XI. ORDERS

Based on the foregoing finding of a breach of s.11 of the Act, THE TRIBUNAL ORDERS:

1. That the wage gap for direct wages shall be calculated by the Commission's methodology of level-to-segment.

2. That the total payout wage adjustment for each female-dominated occupational group shall be in accordance with the procedure used by Mr. Sunter evidenced in Exhibit HR-219. The total payout for each complainant group is to be reduced by the amount of the unilateral payments made in January 1990 by the Treasury Board and any other pay equity adjustments that are in effect.

3. That the actual wage adjustment for a particular level or sub-group within each complainant occupational group shall be determined by mutual agreement between the Alliance and the Respondent so as not to exceed the total payout calculated for each complainant group.

4. That the DA occupational group be treated as two separate groups and the wage adjustment be calculated for the DA-CON group only.

5. That the effective date for calculation of the retroactive wage adjustment is March 8, 1985.

6. That for each year during the retroactive period, i.e., the period from March 8, 1985 to the date of this decision, equalization payments shall be calculated using the 1987-88 job evaluation data from the JUMI Study and the contemporary wage rates for the applicable fiscal year.

7. That pay equity adjustments of wages for times after the date of this decision shall be folded in and become an integral part of wages.

8. That the Respondent and the Alliance shall have one year from the date of this decision to agree upon the distribution of the aggregate sums of the payout.

9. That the Tribunal remain seized of the issue of wage adjustment should the Alliance and Respondent are unable to agree upon the distribution of the aggregate sums of the payout for each female-dominated complainant group.

10. That interest shall be paid on the net amount of direct wages calculated as owing for each year of the retroactive period.

11. That interest shall be calculated semi-annually using the Canada Savings Bonds rate that was in effect on March 1 of each year that a wage adjustment is calculated.

12. That between the date of this decision and the date of ultimate payment of the pay equity adjustment, post-judgment interest shall be paid to employees in the same manner as contained in Order No. 11 of this decision.

13. That the issue of whether adjustments of direct wages for the retroactive period is to be considered wages for all purposes, or wages for purposes of superannuation but not for other pay purposes shall be determined in Phase III of these proceedings.

14. That the claim for hurt feelings pursuant to s.53(3)(b) is hereby dismissed.

15. That the Alliance's claim for costs is hereby dismissed.

Dated at Ottawa, Ontario, this 19th day of June, 1998.

Donna Gillis, Chairperson

Norman Fetterly, Member

Joanne Cowan-McGuigan, Member

APPENDIX A

GLOSSARY OF TERMS

Average - The average of a set of data is the arithmetic mean; the sum of the numbers divided by the sample size. (Shillington, HR-111)

Banding Mean - This is a component of the methodology the Respondent is proposing for identifying male occupational groups performing work of equal value.

Central Tendency - The central tendency of a set of measurements is the tendency of the data to cluster or centre about certain numerical values. (Shillington)

Classification Standard - The classification standard describes an evaluation plan for use by classification officers, staffing officers and line managers who are involved in the classification of jobs in the Federal Public Service. (see job evaluation).

Classification System - A system in the Federal Public Service in which all jobs are classified within a set structure of occupational groups.

Collective Bargaining - Method of determining wages, hours and other conditions of employment through direct negotiations between the union and employer.

Complaint-Based Legislation - Legislation which requires an employee(s) to identify an alleged inequity and file a complaint.

Direct Comparators - A means of assessing any pay equity adjustment due female jobs based on their value relative to the compensation for male jobs based on their value, and where there actually is a male job at a particular value.

Equal Pay for Work of Equal Value - The principle of paying equal pay for different jobs in an organization which are determined to contribute the same or equal value to that organization. A principle which will eliminate gender-based wage discrimination.

Factor - A basic component or part of a job evaluation plan which is used to measure characteristics of a job. For pay equity purposes, four factors are measured. They are skill, effort, responsibility and working conditions.

Female-Dominated - For pay equity purposes, a group of jobs that require a certain percentage of the incumbents be female.

Gender Neutral - Any practice or program which does not incorporate or allow gender-discrimination between males and females, either directly or indirectly.

Gender Bias - Any practice or program which incorporates discrimination between males and females, either directly or indirectly.

Goodness of Fit - In general, a line is a good fit to a set of points if the average distance of those points from the line is very small. The particular measure that is used is the average of the square of the distances, the r2.

Guidelines - The companion subordinate legislation to the Canadian Human Rights Act.

Heteroscedasticity - Heteroscedasticity means that there is a non-constant variance for the error term. (Swimmer). Heteroscedasticity means unequal variance of the data or the variances are spreading out.

Homoscedasticity - Homoscedasticity means that there is a constant variance of the error term. (Swimmer). Homoscedasticity means that the variances are equal.

Indirect Comparison - A means of assessing any pay equity adjustment due female jobs based on their value relative to the compensation for male jobs, based on their value, regardless of whether there is actually a male job at a particular value or not. For example, a wage line shows what a job should be paid, given its value consistently with the overall relationship between job value and salary for jobs. There may or may not be an actual male job at a particular value. (Weiner, HR-1, Tab 5)

Job Classification - A type of job evaluation whereby the total job is evaluated and is then slotted into a pay grade that has been defined. Each job is placed into the grade where the grade description most closely fits the particular job being evaluated. (see classification standard).

Job Evaluation - Job evaluation is a standard process used in wage determination systems. Job evaluation is a systematic process by which the relative worth of jobs within an organization is determined by comparing job information against a set of criteria. (Weiner, HR-7)

Job Evaluation Plan - For purposes of pay equity, a job evaluation plan is a systematic means for valuing duties, normally using factors such as skill, effort, responsibility and working conditions. (Weiner, HR-1, Tab 5)

Linear Regression - The systematic relationship has a linear form (i.e., can be represented by a straight line). A simple linear regression has the mathematical form $y = a + bx$, where y is the dependent variable and x the independent variable. The regression coefficients a and b, which characterize this particular linear regression, are sometimes referred to as the constant or intercept and the slope respectively, for reasons that may be clear from a diagram. (Sunter, HR-147)

Local Inadequacies - Mr. Sunter used the term local inadequacies in connection with segmented lines and also with the composite line. When you look at the pattern of residuals, which is the difference between the wages predicted by the regression and the actual wages, corresponding to each point, you will find that there are patterns in those residuals, which indicate that in some areas the regression line is passing above the actual wage values and in other areas passing below the actual wage values. These would be labelled as local inadequacies of the regression line.

Male Composite Line - One regression line which includes all of the male data. (Sunter, p. 14489)

Male-Dominated Job Class: For pay equity purposes, a group of jobs that requires a certain percentage of the incumbents be male.

Mean - The average of a set of data is the arithmetic mean; the sum of the numbers divided by the sample size. (Shillington, HR-111)

Median - The median value is synonymous with the 50th percentile. It is a number which divides the observed values into two groups of equal size, half larger and half smaller than the median. (Shillington, HR-111)

Method of Least Squares - The statistical procedure for computing a line of regression by finding the best fitting straight line for a set of points.

National Rate - One rate of pay for a particular job in the Federal Public Service.

Observations - A set of measurements or values associated with an individual sample unit. (Sunter, HR-147) Used by the statisticians in their analysis of the JUMI job evaluation results to refer to the job evaluation scores.

Occupational Category - First broad level in the hierarchy of job classification in the Federal Public Service classification system.

Occupational Group - Second level in the hierarchy of job classification in the Federal Public Service classification system.

Occupational Grouping - A hierarchy of jobs in the same basic field or occupation (i.e., clerical, technical). (Weiner, HR-1, Tab 5); comprises broad groupings of jobs in the Federal Public Service.

Occupational Level - A smaller component of an occupational group in the Federal Public Service.

Occupational Sub-Group - A smaller component of an occupational group in the Federal Public Service.

Outliers - In a given sample of observations it is possible for a limited number to be so far separated in value from the remainder that they give rise to the question of whether they are not from a different population, or that the sampling technique is at fault. These values are outliers. Tests are available to ascertain whether they can be accepted as homogenous with the rest of the sample. (Sunter, HR-147) A statistician would use the term "outlier" to mean a value which is invalid, large or small, for some reason outside of the normal study. (Shillington, p. 16359) If an observation is well outside both the confidence interval as well as the prediction interval, you would consider classifying that particular value as an outlier. (Sunter, p. 13337)

Pay Equity - The concept of equal pay for work of equal value entails the elimination of gender based pay discrimination which has resulted from the historical undervaluation of the work traditionally performed by women. It means paying the same wages to males and females where the work they perform is of equivalent value to an enterprise. (Willis, HR-33)

Pay Equity Job Evaluation - Evaluating different jobs within an organization using a job evaluation plan that is designed to measure select criteria.

Policy Line - A regression line depicting the relationship between the employer's job evaluation scores on the horizontal axis and wage rates on the vertical axis. (Weiner)

Pro-active Pay Equity Legislation - Requires employers, in co-operation with employee representatives, to initiate an audit of their pay practice within specific time lines and to identify and correct any pay inequities between male and female-dominated job classes of equal or comparable value.

Quadratic Line - A quadratic line is a statistical estimate based on a variable and its square. Instead of minimizing the sum of the squared distances from the points to a line, it does it to the curve.

R2 - R2 is a measure of the amount of variation in wages that is explained by the regression. In a sense, it is a measure of the goodness of fit. (Sunter, p. 12932) R2 is a summary measure that statisticians have developed. It is a summary statistic and it is an index number that goes from 0 to 1. R2 is a good measure of the goodness of fit or the overall reliability of the regression, remembering that the ordinary least squares regression always gives the best line available for the points. (Swimmer, p. 25956)

Ratcheting - A process of repetitive wage adjustments whereby one wage adjustment sets up the basis for a second that affects the original and then repeats itself.

Regional Rates - More than one rate of pay for a job in the Federal Public Service, each rate is associated with a geographic area and is referred to as a "regional rate". (Durber, p. 18884)

Regression Analysis - Generally, the statistical method used to investigate the relationship between a dependent variable (e.g. wage) and one or more independent variables (e.g. the components or the sum of the components, the Willis job evaluation score). The relationship is supposed to have both a systematic component and a random component.

Sample - In ordinary language, the term "sample" refers simply to a selection of a relatively small number of items from some larger set, used to infer something about the larger set. Sampling may be purposive, which is to say that the sampler selects items according to some specific criteria as to what is believed to be needed for the analysis or estimation intended. (Sunter)

Segmented Line - A regression line which includes males values within set parameters of the female values.

Significance Test - A statistical test which allows one to use the observed data to test theories about the process under study. The test involves rejecting an assumption if the observed result would be unlikely when the assumption is true. (Shillington, HR-111)

Statistical Model - The model is a mathematical specification of the way things work. One has to build a model, at least a statistician does, in order to approach the question of whether the real world operates in this way. (Sunter, p. 13406) Mr. Sunter explains that a model is something that tries to explain the way something works in the real world. Dr. Shillington adds that one believes they understand the mechanism at work well enough, that they can describe it mathematically. (Shillington, p. 16449) One of the characteristics of a model is that it describes a relationship between two or more factors. In order to have a model, one must say that there is a true relationship between the two variables, such as speed of acceleration and the earth's gravity. The correlation between the two variables being so closely connected that if you know one you can predict the other with certainty. This is characteristic of a model. (Shillington, p. 16769)

Systemic Discrimination - Systemic discrimination is discrimination that results form the simple operation of established procedures none of which is designed to promote discrimination. That is, it is discrimination which operates through systems not through conscious decision making. It is impersonal, unintentional and built into neutral systems. Systemic discrimination is difficult to detect because it is often subtle, part of on-going systems which have come to be accepted as the "way things are done around here" and there is no precipitating event (such as being hired at a lower salary than an equally qualified colleague). (Weiner, HR-7)

Traditional Job Evaluation - Jobs in occupational groupings are evaluated and ranked within the particular group. (Willis, p. 7693)

Trend Line - Generally as job values rise salaries also rise and the wage line tends to slope upward. For this reason it is called a "trend line" to express an upward sloping trend.

Universal Classification System - A universal classification system simply means one classification system applied universally to all occupational groups in an organization. PS-2000 is meant to be a universal classification system.

Wage Adjustment Methodology -

Job-to-Job - Wage adjustment under pay equity whereby the pay in each female job is raised to the pay of a male comparator job of the same value. Comparisons between jobs that are of the same point value. (Weiner)

Line-to-Line - Wage adjustment under pay equity whereby the female pay line is raised to the male line. Eliminates the systematic differences between pay in male and female-dominated jobs (differences between the lines). In this method each of the female whole group and male comparator regressions are evaluated at the mean value of Willis points for the female group, sub-group or level under consideration. The adjustment indicated is then the difference or "distance". (Sunter, HR-206)

Level-to-Line - First calculate the mean, for both wage and points, for the female group, sub-group or level under consideration. Then evaluate the male regression (for the whole male comparator) at the female points mean. The wage adjustment indicated is then the difference. (Sunter, HR-206)

Level-to-Segment - This is identical to the level-to-line except that the male regression used is estimated only over the male comparator group corresponding to the point range determined by taking two standard deviations (of the distribution of points over the female level) either side of the mean points for the female level.

Wage Gap - The wage gap is the distance or the difference between the same point values. (Sunter, p. 12860)

Wage Line - A line fitted to a scatter or array of jobs plotted in terms of their value, derived from a job evaluation system, and their salary of compensation. The most common technique for fitting a wage line is regression analysis which ensures that the line is placed such that the total squared distance between all the points and the line is minimized. (Weiner, HR-1, Tab 5)

Wald F Test - An f-test is one of several statistical tests that can be used to determine whether two regression lines are statistically different. (Shillington, p. 16887)

Weighted Average - The weighted average is obtained by multiplying the wage rate paid in each region by the number of incumbents in the region, adding together these totals and dividing by the total number of incumbents in all regions. The resulting number is referred to as the "weighted average".

Wilcoxon Rank Sum Test - A statistical test used to compare two sets of values to assess the evidence that they come from different populations. The approach is similar to comparing the average values from the two groups except that instead of comparing the average relative values from the two groups the relative positions (ranks) of their scores are compared. (Sunter, HR-130)

Zone of Non-Discrimination - The zone of non-discrimination is a phrase coined by the Respondent in argument. It denotes, according to the Respondent, the differences in wages between male groups of equal value which cannot be explained by discrimination caused by

gender. (Chabursky, p. 32450)