

JUDICIAL COMPENSATION AND BENEFITS COMMISSION

REPLY SUBMISSION

of the

CANADIAN SUPERIOR COURTS JUDGES ASSOCIATION

and the

CANADIAN JUDICIAL COUNCIL

March 29, 2016

Pierre Bienvenu, Ad. E.

Azim Hussain

Norton Rose Fulbright Canada LLP

**Counsel for the Canadian Superior Courts Judges Association and
the Canadian Judicial Council**

TABLE OF CONTENTS

OVERVIEW.....	2
I. THE GOVERNMENT’S ATTEMPT AT RE-LITIGATING ISSUES	3
II. REPLY TO THE GOVERNMENT’S POINTS ON RE-LITIGATED ISSUES	8
A. DM-3 comparator	8
1. DM-3 size	9
2. Tenure.....	9
3. Compensation measures.....	10
4. Evidence regarding income of lawyers	11
5. Consideration of general trends.....	12
B. Inclusion of DM performance pay.....	14
C. Filters to analyze CRA self-employed lawyers data.....	15
1. 65 th vs. 75 th percentile.....	15
2. Age-weighting.....	16
3. Low-income exclusion	17
4. Top 10 CMAs	17
D. Supernumerary status as incentive	17
E. Other benefits to the judiciary.....	18
F. IAI as basis for statutory indexation.....	18
G. Objectivity as overarching reason to reject attempts to re-litigate	19
III. REPLY TO OTHER ISSUES RAISED BY THE GOVERNMENT	19
A. Economic conditions	19
B. Attracting outstanding candidates	21
C. Value of the annuity	21
D. CPI as alternative to IAI as basis for statutory indexation	23
E. Pre-appointment income study.....	27
F. Quality-of-life study	27
G. Methodological issue in the CRA self-employed lawyers data.....	28
IV. CONCLUSION.....	32
APPENDIX A – PAST GOVERNMENT SUBMISSIONS AND COMMISSION CONCLUSIONS ON DM-3 COMPARATOR	
APPENDIX B – REPORT OF MS. SANDRA HAYDON	
APPENDIX C – REPORT OF MR. DEAN NEWELL	
APPENDIX D – REPORT OF PROF. DOUG HYATT	

OVERVIEW

1. This Reply Submission of the Canadian Superior Courts Judges Association (“**Association**”) and the Canadian Judicial Council (“**Council**”) addresses the main arguments made by the Government of Canada in its submission dated February 29, 2016 (“**Government’s Submission**”). The Reply Submission will be complemented by counsel’s oral argument at the public hearings.
2. The thrust of this Reply Submission is that
 - (i) the Government has failed to justify its proposed recommendation that the statutory annual adjustments of judicial salaries be based on the CPI rather than the IAI;
 - (ii) the Commission must continue to use the DM-3 comparator to assess the adequacy of judicial salaries;
 - (iii) the judiciary’s proposed increase in judicial salaries articulated in the main Submission filed on February 29, 2016 (“**Judiciary’s Submission**”) is justified in light of the factors set out in s. 26(1.1), the total compensation of DM-3s and the prevailing income of self-employed lawyers.
3. The mandate of the Commission under s. 26 of the *Judges Act* is to inquire into the adequacy of judicial compensation and benefits. The Government’s Submission provides little assistance to the Commission to accomplish that mandate. Instead, the Government has chosen to devote a significant part of its Submission to re-litigate issues that were resolved sixteen years ago, going back to the Drouin Commission of 1999-2000. This approach undermines the constitutional requirements of the Quadrennial Commission and regrettably contributes to creating an adversarial climate to the process before the Commission.
4. The Judiciary’s Submission and the present Reply Submission seek to be responsive to the Commission’s needs in order to carry out its mandate under s. 26 of the *Judges Act*. To address some of the issues raised in the Government’s Submission, namely the proposal to substitute the CPI for the IAI, the appropriate filters in the analysis of CRA data, and the value of the judicial annuity, the Association and the Council have included

expert reports from Ms. Sandra Haydon (filters in analysis of CRA data), Mr. Dean Newell (value of the judicial annuity), and Prof. Doug Hyatt (IAI vs. CPI).

I. THE GOVERNMENT'S ATTEMPT AT RE-LITIGATING ISSUES

5. Many of the issues raised in the Government's Submission in connection with judicial salaries and benefits have been addressed by past Commissions. The Government's attempt at re-litigating these issues is disrespectful of both the constitutional process and this Commission. The implicit message to this Commission is that whatever it decides on the various analytical issues leading to its substantive recommendations, the Government will, if those decisions are not to its liking, re-litigate them in the next quadrennial cycle.
6. As argued in the Judiciary's Submission, it is an affront to the Commission process, to the reports and recommendations of past Commissions and to common sense, to act as if none of the determinations of past Commissions had any value whatsoever.
7. The Association and the Council reject in the strongest possible terms the Government's attempt, in the absence of demonstrated change, at re-litigating issues that are the subject of consensus among past Commissions. This entails wasted time and resources for all concerned. As the Block Commission and the Levitt Commission recommended in Recommendation 14 and Recommendation 10 respectively:

The Commission recommends that: Where consensus has emerged around a particular issue during a previous Commission inquiry, in the absence of demonstrated change, such consensus should be taken into account by the Commission, and reflected in the submissions of the parties.
8. Moreover, such attempts at re-litigation strain the relationship between the judiciary and the Government, which explains Recommendation 11 of the Levitt Commission:

The Commission recommends that: The Government and the judiciary examine methods whereby the Commission process can be made less adversarial and more effective.
9. The Association and the Council refer the Commission to paragraphs 34-41 the Judiciary's Submission, where they summarize their attempt at identifying areas of consensus in connection with the objective of making the process less adversarial and more effective.

10. Unfortunately, the Government has chosen to ignore the principal reason why the Commission process at the federal level has become adversarial, at the same time ignoring the obvious and most important way to make it less adversarial and more effective, which is to build on the consensus arrived at by past Commissions.
11. The Government refers frequently in its Submission to certain conclusions of the McLennan Commission to justify its attempt at re-litigating various issues.¹ For example, it relies on the McLennan Commission's comments on the DM-3 comparator to seek to justify a departure from this traditional comparator.² What the Government fails to mention, still less to reconcile with its reliance on the McLennan Report, is the fact that the salary recommendation of the McLennan Commission was rejected by the Government, through its unconstitutional Second Response.³
12. In its Second Response, the Government said that it had "concerns about the validity of the methodology and assumptions on which the McLennan Commission has relied."⁴ It criticized the McLennan Commission for its inclusion of at-risk pay when considering the income of Deputy Ministers, and for its exclusion of income in the CRA data below \$60,000. Before this Commission, safe from the McLennan Commission's actual recommendations, the Government extolls the virtues of the McLennan Commission's reasoning.
13. There is simply no credibility to the Government's expedient and selective references to the conclusions of the McLennan Commission. It would be one thing if the Government had actually accepted the salary recommendation that resulted from that Commission's application of the various comparative factors. The fact that it did not accept it highlights the reality that the Government is simply cherry-picking from the McLennan Commission's analysis those elements that are convenient for it, all the while ignoring the larger picture drawn by the McLennan Commission using those elements; and all the while contradicting the clear consensus emerging from the reports of past Commissions.

¹ See e.g. the Government's Submission at paras. 53, 100, 111, 117, 126 and 140.

² Government's Submission at para. 100.

³ Response of the Government of Canada to the Report of the 2003 Judicial Compensation and Benefits Commission (May 29, 2006) [Book of Exhibits and Documents of the Association and the Council ("**BED**") at tab 3].

⁴ Second Response at 9 [BED at tab 3].

14. The Government's attempt to re-litigate points that previous Commissions have rejected is illustrated by the Government's decision to rely yet again on the expert evidence of Mr. Haripaul Pannu. Mr. Pannu has filed expert reports before three past Commissions over a twelve-year period.⁵ Not only has the Government relied on the same expert for four inquiries to date, that expert has produced reports that are nearly identical to each other both in form and in content.
15. In Mr. Pannu's report before this Commission, he proposes, among others, the following filters or non-filters for the analysis of the CRA data on self-employed lawyers:
 - the application of the 66th percentile and then the 65th percentile;
 - an age-weighted approach utilizing all ages rather than the 44-56 age bracket which, as reported by Mr. Pannu, accounts for over two-thirds of all appointments;
 - including low income below \$60,000.
16. Past Commissions have declined to adopt this approach. For example, the McLennan Commission, on which the Government chooses selectively to place reliance, considered that the 75th percentile, calculated with a low-income exclusion, "strikes a reasonable balance between the largest self-employed income earners and those in lower brackets, given the criteria that we must apply."⁶ Before the McLennan Commission, Mr. Pannu had proposed the 66th percentile. He subsequently changed to the 65th percentile, which he proposed before both the Block Commission and the Levitt Commission.
17. Before the Levitt Commission, Mr. Pannu posited that the 65th percentile is the appropriate standard for "exceptional individuals" while the 75th percentile is for "truly

⁵ H. Pannu, "Report on the Earnings of Self-Employed Lawyers for the Department of Justice Canada for the 2003 Judicial Compensation and Benefits Commission" (January 2004) [Reply Book of Exhibits and Documents of the Association and the Council ("**Reply BED**") at tab 1]; H. Pannu, "Report on the Earnings of Self-Employed Lawyers for the Department of Justice Canada in preparation for the 2007 Judicial Compensation and Benefits Commission" (December 2007) [Reply BED at tab 2]; H. Pannu, "Report on the Earnings of Self-Employed Lawyers for the Department of Justice Canada in preparation for the 2011 Judicial Compensation and Benefits Commission" (December 13, 2011) [Reply BED at tab 3].

⁶ McLennan Report (2004) at 43 [JBD at tab 29].

exceptional individuals”.⁷ The Levitt Commission concluded that there was no evidence “indicating on what basis such a distinction might be made or that it is practical to do so.”⁸ Mr. Pannu’s current report provides no specific justification for using the 65th percentile instead of the 75th percentile, yet it still presents data in connection with the 65th percentile.

18. On the issue of the appropriate percentile, it is important for this Commission to know that in 1999-2000, the Government’s own experts, Hay Management Consultants, had proposed the 75th percentile before the Drouin Commission. This was at a time when the judiciary was proposing the 83rd or 87th percentile. The Drouin Commission’s expert accepted the Government’s position:

Hay Management Consultants Limited, on behalf of the Government, expressed reservations about targeting an income range with a mid-point at the 83rd percentile, among other matters, indicating that in the private sector “an aggressive tie in to comparable market data for executives would be the 75th percentile.” The experts engaged by the Commission agreed with this observation.⁹

19. Following this finding by the Drouin Commission, the judiciary has adhered to the 75th percentile. Despite the fact that the Government had prevailed in the debate before the Drouin Commission as to the appropriate percentile, it has since then tried to take the percentile level even lower by relying on the opinion of Mr. Pannu. This is an unacceptable attempt to re-litigate an issue, contrary to the process recommendations of the Block Commission and the Levitt Commission quoted above, and made all the worse by the fact that the Government has been seeking since 2004 to undermine a figure that it proposed in the first place in 2000.
20. A final note concerning the report of the Government’s expert: it is nothing short of astonishing that Mr. Pannu, who is put forward as an independent expert, would defend positions rejected by past Commissions without even engaging with their findings, or the reasoning supporting these findings. Indeed, Mr. Pannu’s most recent report reads as if these previous contrary findings did not exist.

⁷ H. Pannu, “Report on the Earnings of Self-Employed Lawyers for the Department of Justice Canada in preparation for the 2011 Judicial Compensation and Benefits Commission” (December 13, 2011) at 5 [Reply BED at tab 3].

⁸ Levitt Report (2012) at para. 38 [JBD at tab 31].

⁹ Drouin Report (2000) at 40 [JBD at tab 28].

21. As for the DM-3 comparator, the Government has been making the same points about its alleged weaknesses since the 1999-2000 Drouin Commission, as shown by the following excerpts from the Government's submission to the Drouin Commission:

- "In adding s. 26(1.1) of the *Judges Act*, Parliament did not direct the Commission to consider such a comparison."¹⁰
- "Furthermore, deputy ministers are a poor comparator. Unlike judges, their salaries are not indexed. A significant portion of deputy ministers' earnings depends upon an annual evaluation of their performance and is at risk. Unlike judges, deputy ministers are a very small cadre, with only 10 individuals who have risen to the DM-3 level."¹¹

22. The Drouin Commission rejected the Government's arguments:

- "This concept of rough equivalence expressly recognizes that while DM-3s and judges do not perform the same work, there is a basis for approximate remuneration parity."¹²
- "More particularly, we have concluded that the important aspect of the DM-3 comparator, for the purposes of our inquiry, is the maintenance of a relationship between judges' salaries and the remuneration of those senior federal public servants whose skills, experience and levels of responsibilities most closely parallel those of the Judiciary. We agree with the substance of the observation by both the Courtois and Scott Commissions (1990 and 1996) that the relationship between the remuneration of DM-3s and judges should be maintained, not as a precise measure of 'value' but as a reflection of '*what the marketplace expects to pay individuals of outstanding character and ability, which are attributes shared by deputy ministers and judges.*'"¹³

¹⁰ Submission of the Government of Canada to the Judicial Compensation and Benefits Commission (December 20, 1999) at para. 32 [Reply BED at tab 4].

¹¹ *Ibid.* at para. 33 [Reply BED at tab 4].

¹² Drouin Report (2000) at 29 [JBD at tab 28].

¹³ Drouin Report (2000) at 31 [italics in original, JBD at tab 28]. See Appendix A for the Government's submission on the issue of DM-3 to the Block Commission and the Levitt Commission, and their respective responses.

23. Other Quadrennial Commissions have since rejected the Government's arguments and applied the DM-3 comparator, which had also been applied previously by Triennial Commissions. The DM-3 comparator is appropriate because there is a principled and historical basis for it, and the comparator has withstood the test of time. This is discussed further below.

II. REPLY TO THE GOVERNMENT'S POINTS ON RE-LITIGATED ISSUES

24. The Association and the Council address below each of the points that the Government seeks to re-litigate: the DM-3 comparator, inclusion of DM performance pay, filters to analyze CRA self-employed lawyers data, supernumerary status as incentive, other benefits to the judiciary, and IAI as basis for statutory indexation.

A. DM-3 comparator

25. The Government argues that the DM-3 comparator "is not an objective, relevant and justified consideration under s. 26(1.1)(d) of the *Judges Act*."¹⁴ It calls for an approach "to consider trends in public sector compensation generally,"¹⁵ a position it took before past Commissions, going back to the 1999-2000 Drouin Commission.¹⁶
26. As the Association and the Council observed in the Judiciary's Submission, it is the Government itself that proposed to the Crawford Commission (whose report was released in 1993) that there should be rough equivalence to the DM-3 midpoint.¹⁷ The Block Report recounts¹⁸ the subsequent application of this comparator which, from at least the advent of the Triennial Commission right up to the Levitt Commission (with the possible exception of the McLennan Commission), has been used to ascertain the adequacy of judicial salaries. Hence, with time, what started as a benchmark matured into the principle that there should be rough equivalence between the salaries of federally appointed *puisne* judges and the midpoint of the remuneration of the DM-3s.
27. The Government has not provided any justification for departing from the comparator that it had itself proposed during the time of the Triennial Commission, and that has

¹⁴ Government's Submission at para. 98.

¹⁵ *Ibid.*

¹⁶ Submission of the Government of Canada to the Judicial Compensation and Benefits Commission (December 20, 1999) at para. 36 [Reply BED at tab 4].

¹⁷ See Judiciary's Submission at paras. 88-90.

¹⁸ Block Report (2012) at paras. 94-111 [JBD at tab 30].

systematically been applied since. The onus of establishing the need for change lies on the party seeking it.¹⁹ The Government has not discharged that onus. The Association and the Council reiterate the points made in the Judiciary's Submission about the importance of the DM-3 comparator.²⁰

28. The Government refers to the following points to seek to undermine the DM-3 comparator: 1) the small size of the DM-3 group; 2) differences in tenure of the respective positions; and 3) differences in considerations informing DM-3 compensation.²¹ Each one of these issues was unsuccessfully raised by the Government before past Commissions.

1. DM-3 size

29. The Government refers to the disparity between the size of the DM-3 group and the number of federally appointed judges. However, that disparity has always existed, including when the Government proposed the rough equivalence with DM-3s.
30. DM-3s are senior public servants in the executive branch. Their number is irrelevant to the rationale behind the use of the DM-3s as a comparator, namely that judicial independence requires that the executive branch not be seen as superior to the judicial branch. Rough equivalence between the salary of federally appointed judges and the compensation of DM-3s, regardless of their number, serves to reinforce judicial independence.²²

2. Tenure

31. The Government states that deputy ministers do not have the kind of security of tenure accorded to judges. The argument is of no consequence since none of the other groups from the public sector proposed by the Government, nor self-employed lawyers, enjoy the kind of security of tenure that is constitutionally required for judges.

¹⁹ Levitt Report (2012) at para. 31 [JBD at tab 31]. See discussion in Judiciary's Submission at para. 59.

²⁰ Judiciary's Submission at paras. 86-95.

²¹ Government's Submission at para. 116.

²² The Levitt Commission rejected the idea that the small number of DM-3s made them an inappropriate comparator group; see Levitt Report (2012) at para. 27 ("While the Commission recognizes that the choice of the DM-3 group may not be regarded as ideal due to its small sample size and other comparability issues such as tenure in position, this Commission, like the Drouin and Block Commissions, focused on the purpose of the analysis as articulated above and concluded that the seniority of the group and the functions its members discharge make it the best choice as a public sector comparator group for the judiciary.") [JBD at tab 31].

32. The nature of the security of tenure of judges, and the reasons for it, are *sui generis*. It is inappropriate that the Government should submit that security of tenure, a core constitutional principle that goes to the very heart of judicial independence in a liberal democracy, defeats the application of the key comparator to determine judicial salaries. The Block Commission explicitly rejected this argument.²³

3. Compensation measures

33. The Government refers to differences in compensation measures to argue against comparisons between judges and DM-3s. More specifically, the Government states that the individualized nature of the compensation for deputy ministers and the availability of performance pay are two reasons militating against the comparison with DM-3s.
34. Compensation is individualized for almost every group being proposed by the Government. Therefore, this is yet another factor that is of no consequence in the Government's arguments.
35. As for performance pay, if the Government's arguments about compensation measures militating against the DM-3 comparison were accepted, it would mean that the only comparison from the examples it gives would be the GCQ-9 category, which is attached to specific posts and does not involve performance pay.²⁴ This would be a completely novel approach, and a radical break with the past. The Government itself does not propose it, yet the logical application of its argument is to that effect. Moreover, the GCQ-9 category, at present comprising four individuals, would itself be vulnerable to the Government's argument based on the small size of the group. The issue of performance pay is discussed further in section B below.²⁵

²³ Block Report (2008) at para. 109 [JBD at Tab 30].

²⁴ Government's Submission at paras. 145-147.

²⁵ Far from rejecting DM-3s as a comparator group because of variable compensation, past Commissions have held that variable compensation should be considered as part of the appropriate public sector comparator group. See e.g. Levitt Report (2012) at para. 25 ("The Government took the position that, because variable compensation is not a tool which can be used in a judicial compensation scheme, when comparing the compensation of judges and public servants the Commission should ignore the variable portion of senior public sector compensation. [...] The Commission found this position to be inconsistent with the approach adopted by past Commissions, with customary compensation practice, and with common sense.") [JBD at tab 31]; Block Report (2008) at para. 109 ("We are not persuaded that performance pay should be excluded from our considerations because deputy ministers do not enjoy the same security of tenure as judges or because performance pay must be earned each year. Performance pay is an integral component of deputy ministers' cash compensation.... The Government, itself, recognizes the importance of including performance pay in its calculations when determining the salaries of other federal office holders such as members of the GCQ group

4. Evidence regarding income of lawyers

36. The Government argues that the growing availability of reliable evidence on incomes of the senior Bar in both the private and public sectors militates against relying on the DM-3 group as a comparator. The Government further states that undue weight was given to the DM-3 comparator because there was a lack of evidence on lawyers' income.
37. The Government is attempting to make a connection between two distinct things. The justification for relying on DM-3s had nothing whatsoever to do with problems in the evidence on lawyers' income in the private and public sectors. There is one logic supporting the DM-3 comparison, and there is a distinct logic supporting the comparison with self-employed lawyers (lawyers in the public sector were never a comparator group).
38. On the issue of the reliability of the evidence on the incomes of self-employed lawyers, it must be noted that the picture drawn by the CRA data remains far from perfect, as the Government itself argued in its PAI study submission.²⁶ It suffices to observe, by way of example, the data concerning a non-contentious issue such as the number of lawyers from private practice whose income data is captured by the CRA data placed before the Commission. According to the CRA data, from 2010 to 2014, the number of self-employed lawyers has declined by over 16% (from 22,110 to 18,550); yet, according to the 2013 membership report from the Federation of Law Societies,²⁷ the number of practising lawyers and the number of professional corporations have been increasing.
39. On the issue of the DM-3 comparator, the Government refers to the testimony of David Scott before the Standing Senate Committee on Legal and Constitutional Affairs²⁸ as well as the Scott Report (1996) where it was stated that "a strong case can be made for the proposition that the comparison between DM-3's and judges' compensation is both imprecise and inappropriate."²⁹

(which includes heads and members of administrative tribunals), for whom, like judges, performance pay would be inappropriate.") [JBD at tab 30].

²⁶ Submissions of the Government of Canada on the Proposal for a Pre-Appointment Income Study at paras. 20-29.

²⁷ Federation of Law Societies of Canada, 2013 Statistical Report, *ibid.* at tab 4.

²⁸ Government's Submission at paras. 14-19.

²⁹ *Ibid.* at para. 109; Scott Report (1996) at 14 [BED at tab 28].

40. What the Government omits to mention is that the Scott Commission made the above statement without actually taking a position against the comparison with DM-3s. To the contrary, the Scott Commission deplored the failure of successive governments to implement the 1975 equivalency with DM-3s.³⁰ It made the above statement quoted by the Government in a context where it expressed serious concern about the freezing of statutory indexation, concluding that “[i]n terms of the clear intent to establish a relationship between Bench and Bar, or even a relationship with DM-3’s, the judiciary is in an accelerating backward slide.”³¹ The Scott Commission went on to say the following:

Accordingly, your Commission, rather than engaging in an elaborate analysis of DM-3’s and their comparability with judges, or indeed the available statistics with respect to earnings of candidates in the private sector at the Bar, chooses to focus on the most significant factor, the withdrawal of indexing. It is this government initiative which has been, and if not checked will continue to be, the most significant contributor to distancing judicial salaries from those of the practising Bar.³²

41. As can be seen from the above, the Scott Commission was not concerned with questioning the DM-3 comparator, but rather was concerned that the gap between judicial salaries and self-employed lawyers had become so significant due to a combination of the failure to implement the 1975 equivalency with DM-3s and a general wage freeze in the federal public service, that suitable candidates from private practice were not being attracted to the Bench.

5. Consideration of general trends

42. The Government argues that it would be more objective and justified to consider senior public servants’ salaries generally. The problem with this argument is that all of the arguments for dispensing with the DM-3 comparator, except for group size, also apply to dispense with a comparison with public servants generally: lack of security of tenure, individualized compensation, and performance pay.
43. More importantly, the size of the group that the Government is proposing is so unwieldy and devoid of a guiding principle that the proposal is unhelpful to the Commission. If a comparison is to be made to senior public servants’ salaries generally, as the

³⁰ Scott Report (1996) at 15 [BED at tab 28].

³¹ *Ibid.* at 15-16 [BED at tab 28].

³² *Ibid.* at 16 [BED at tab 28].

Government calls for,³³ how is the Commission to decide what groups to look at and what groups to ignore in the public sector generally? For example, the salary range for the Governor of the Bank of Canada is \$436,100 – \$513,000, and the range for the Senior Deputy Governor is \$305,400 – \$359,200.³⁴ On what basis has the Government decided to exclude positions such as these in the comparative exercise?

44. As the Association and the Council explained before the Levitt Commission, there are serious problems if a comparison is to be made with the entire range of DMs.³⁵ The DM-2 level is attained automatically after one year of service as a DM-1.³⁶ Where promotion from one level to another is automatic after a certain amount of time, it makes no sense to have either of those levels as comparators for judges, who do not get appointed automatically after a certain number of years as lawyers. The reality is to the contrary: regardless of the fact that a segment of the lawyer population falls into the category of senior jurists by virtue of the number of years since their call to the Bar, only some of them will fall within the category of “outstanding” candidates contemplated by s. 26(1.1)(c) of the *Judges Act*.
45. It would therefore be wholly inappropriate to compare judicial salaries with the DM-2 level or with the whole DM class. There is no uniformity of qualities and skills across the class and it would be untenable to compare superior court judges with a variegated class of public servants, some of whom have risen through the ranks because of their superior capabilities, while others have been held back because of their limitations.
46. GCs and GCQs occupy apex leadership positions in various federal institutions like the Canadian Institute of Health Research and the National Research Council, and quasi-judicial bodies like the Canadian Radio and Telecommunications Commission and the Canadian Transportation Agency.
47. Comparison with positions in the federal administrative sphere, and with theoretical levels like GCQ-10 for which there is no actual position, is not consistent with the

³³ Government’s Submission at para. 139.

³⁴ See <http://www.bankofcanada.ca/about/board-of-directors/>

³⁵ Reply Submission of the Canadian Superior Courts Judges Association and the Canadian Judicial Council (January 30, 2012) at paras. 64-71 [Reply BED at tab 5].

³⁶ J. Bourgault & S. Dion, “How Should the Performance of Senior Officials be Appraised? The Response from Federal Deputy Ministers-Summary” (Canadian Centre for Management Development, 1993) at 1 [Reply BED at tab 6].

principled comparison with DM-3s. The Association and Council have set out at paragraphs 86-114 of the Judiciary's Submission the principled and historical basis for the DM-3 comparison. To compare judges with the heads of administrative bodies, even if those bodies are quasi-judicial, puts judges at a level lower than the senior members of the executive branch, the DM-3s (as well as DM-4s). This is not in keeping with the rationale behind the comparison between the executive and judicial branches, namely that judicial independence requires that the executive branch not be seen as superior to the judicial branch.³⁷

B. Inclusion of DM performance pay

48. The Government emphasizes the variable and individualized nature of performance pay.³⁸ This issue has been dealt with by past Commissions. For example, the Block Commission said that performance pay was an integral part of DM-3 compensation: "Performance pay is an integral component of deputy ministers' cash compensation, and it has been growing in recent years as a percentage of their cash compensation."³⁹ Going back to the Drouin Commission, its report referred to the First Report of the Advisory Committee on Senior Level Retention and Compensation, and observed that the variable pay component of DM compensation was an "integral part" of the total compensation.⁴⁰
49. The Levitt Commission used the following strong language to reject the Government's submission that it would be appropriate to compare the salary of a judge with the salary of a deputy minister to the exclusion of the latter's performance pay:

The Commission found this position to be inconsistent with the approach adopted by past Commissions, with customary compensation practice, and with common sense.⁴¹

It is indeed nonsensical – and would be a comparison lacking in credibility – to compare the compensation of a group of individuals with a portion only of the compensation of the comparator group.

³⁷ Previous Commissions have rejected the Government's attempt to broaden the public sector comparator, see e.g. Levitt Report (2012) at para. 27 [JBD at tab 31]; Block Report (2008) at para. 103 [JBD at tab 30].

³⁸ Government's Submission at paras. 124-134.

³⁹ Block Report (2012) at para. 108 [JBD at tab 30].

⁴⁰ Drouin Report (2000) at 25 [JBD at tab 28].

⁴¹ Levitt Report (2012) at para. 25 [JBD at tab 31].

50. The variable and individualized nature of performance pay is further tempered by the fact that the Block Commission concluded that half of eligible performance pay should be included in the comparator. Moreover, as mentioned above, compensation is individualized for almost every group being proposed by the Government, and it is individualized generally in both the public and private sectors. Therefore, it is unavailing to point to this aspect of performance pay as a reason to exclude this form of compensation.

C. Filters to analyze CRA self-employed lawyers data

51. The issue of the filters to be applied to the analysis of the CRA data on self-employed lawyers has been addressed before past Commissions. The Association and the Council address each in turn below.

1. 65th vs. 75th percentile

52. As mentioned above, the Government itself proposed the 75th percentile before the Drouin Commission. The judiciary at that time was proposing the 83rd or 87th percentile. The Drouin Commission accepted the Government's number, and the judiciary accepted the Commission's decision. Notwithstanding the Commission's acceptance of its submission 15 years ago, the Government since that time has attempted to reduce that percentile. This Commission is presented with Mr. Pannu's fourth report in which he proposes a percentile lower than the 75th percentile.
53. As observed by the compensation specialist retained by the Association and the Council, Sandra Haydon, in her response to the report of Mr. Pannu,⁴² a "mechanical view" should not be adopted in compensation analysis.⁴³ Her experience is that the 75th percentile tends to be the "bottom target where the goal is the attraction of exceptional or outstanding individuals."⁴⁴ Indeed, she considers that use of a higher percentile would be justified.⁴⁵ Different experts retained by the Association and the Council in the past have

⁴² S. Haydon, "Commentary on the Report on the Earnings of Self-Employed Lawyers for the Department of Justice Canada in Preparation for the 2015 Judicial Compensation Benefits Commission (Pannu Report)" (March 29, 2016) (the "**Haydon Report**") [Appendix B].

⁴³ *Ibid.* at 7 [Appendix B].

⁴⁴ *Ibid.* at 7 [Appendix B].

⁴⁵ *Ibid.* at 7 [Appendix B].

similarly opined that compensation principles support the application of the 75th percentile in this case.⁴⁶

54. Moreover, contrary to Mr. Pannu's assertion that arriving at the right percentile depends on supply/demand issues,⁴⁷ Ms. Haydon points out that "setting a desired target percentile is not simply an exercise in supply and demand. Rather, questions as to the inherent value of each individual judge and the judiciary overall must be considered."⁴⁸ For all of these reasons, the Commission should give no weight to Mr. Pannu's canvassing of the 65th percentile.

2. Age-weighting

55. Mr. Pannu applies an age-weighted approach using the entire range of ages of appointees between 1997 and 2015. In contrast, the Association and the Council propose the age range of 44-56, being the age range of the majority of appointees. This proposal accords with the findings of the Drouin Commission and the McLennan Commission.⁴⁹
56. Further, Ms. Haydon's view is that a weighted model "serves to distort the data" in a compensation context where the better approach is to look at where the "vast majority of the appointments pool",⁵⁰ especially in the present case where the 44-56 age range has been applied by past Commissions, thereby facilitating comparability of data. She states that while a weighted approach may be a common practice in actuarial exercises, compensation exercises do not usually apply such an approach.⁵¹ A blended approach canvassed by Ms. Haydon is to apply the age-weighted approach within the 44-56 age range. She notes that the 75th percentile rises from \$267,041 under Mr. Pannu's calculation across the entire appointments age range, to \$329,761 under her blended approach.⁵²

⁴⁶ See Reply Submission of the Canadian Superior Courts Judges Association and the Canadian Judicial Council to the Judicial Compensation and Benefits Commission (January 30, 2012) at paras. 77-78 [Reply BED at tab 5].
⁴⁷ Pannu Report at 3 [Government's Book of Documents at tab 10].

⁴⁸ Haydon Report at 8 [Appendix B].

⁴⁹ Neither the Block Commission nor the Levitt Commission made a pronouncement on this point.

⁵⁰ Haydon Report at 12 [Appendix B].

⁵¹ *Ibid.* at 12 [Appendix B].

⁵² *Ibid.* at 13 [Appendix B].

3. Low-income exclusion

57. Mr. Pannu again calls for the inclusion of all incomes, as opposed to the exclusion of low incomes applied by past Commissions. The McLennan Commission raised the low-income exclusion from \$50,000 applied by the Drouin Commission to \$60,000 when analyzing CRA data from 2000.⁵³ The Association and the Council have been applying that \$60,000 cut-off ever since. They now propose an adjusted cut-off of \$80,000 to account for inflation since 2004.
58. Ms. Haydon's reasoning in supporting the application of the \$80,000 cut-off, and even calling for a \$100,000 cut-off, is based on the observation that typical benchmarking removes outliers. In this case, where \$237,015 is the figure at the 75th percentile under Mr. Pannu's analysis, it would be reasonable to consider as outliers those figures that are less than 50% of that amount.⁵⁴ She would consider the reliability of data to be "highly questionable" where there is an inclusion of rates of pay that are less than half of the target percentile.⁵⁵

4. Top 10 CMAs

59. Mr. Pannu proposes an approach where weighting is applied to the data to reflect the 60/40 split in appointments as between the top 10 CMAs and other regions. Ms. Haydon considers this to be a "blunt model".⁵⁶ Her view is that there should be a "common sense" approach where the model is neither at the top end, nor at the bottom end of the scale.⁵⁷ She observes that the current judicial salary is "well below a competitive market."⁵⁸

D. Supernumerary status as incentive

60. The Government points to the option to elect supernumerary status as being an "important incentive" according to Mr. Pannu.⁵⁹ Mr. Pannu made the point about the

⁵³ McLennan Report (2004) at 43 [JBD at tab 29].

⁵⁴ Haydon Report at 16 [Appendix B].

⁵⁵ *Ibid.* at 16 [Appendix B].

⁵⁶ *Ibid.* at 17 [Appendix B].

⁵⁷ *Ibid.* at 17 [Appendix B].

⁵⁸ *Ibid.* at 18 [Appendix B].

⁵⁹ Government Submission at paras. 89-93; Pannu Report at 16 [Government's Book of Documents at tab 10].

supernumerary option in each of his past three reports, and has done so again.⁶⁰ Ms. Haydon observes that supernumerary status can be seen as mitigating certain restrictions that apply to judges post-retirement.⁶¹ Again, the analysis that must be done is a holistic one, as opposed to cherry-picking discrete features of judicial compensation and benefits.

E. Other benefits to the judiciary

61. The Government argues that comparison between self-employed lawyers and judges requires consideration of the “generous” benefits package provided to the judiciary.⁶² Mr. Pannu has made the point about other benefits in each of his past three reports, and has done so again.⁶³ Ms. Haydon’s view is that “health and dental plans typically are not significant drivers of a person’s decision to accept or decline an employment opportunity.”⁶⁴

F. IAI as basis for statutory indexation

62. The Government asked the Levitt Commission to recommend a cap of 1.5% on IAI. The Association and the Council vigorously opposed such a recommendation, going as far as to invite the Levitt Commission not only to decline to recommend a cap on IAI but also positively to recommend against the imposition of such a cap and in favour of maintaining the IAI adjustment as an essential mechanism to ensure financial security and preserve judicial independence.
63. The Levitt Commission declined to recommend a cap on IAI. It also noted the special status of the IAI as “a key element in the architecture of the legislative scheme for fixing judicial remuneration”, and added that it “should not lightly be tampered with”.⁶⁵
64. The Government is now attacking this key element in the architecture of the scheme for fixing judicial remuneration not by introducing a cap on IAI, but by seeking to replace it with the CPI, the latter being a generally lower index than the former. The flaw underlying the CPI proposal is set out in the section below.

⁶⁰ Pannu Report at 16 [Government’s Book of Documents at tab 10].

⁶¹ Haydon Report at 20 [Appendix B].

⁶² Government’s Submission at paras. 94-95.

⁶³ Pannu Report at 16 [Government’s Book of Documents at tab 10].

⁶⁴ Haydon Report at 19 [Appendix B].

⁶⁵ Levitt Report (2012) at para. 46 [JBD at tab 31].

G. Objectivity as overarching reason to reject attempts to re-litigate

65. In the *PEI Reference*, the Supreme Court of Canada held that judicial compensation commissions must be independent, objective and effective.⁶⁶ That the Government's repeated attempts at re-litigating settled issues undermines the effectiveness of the Commission process is self-evident: it suffices to observe the resources deployed by the parties and their experts before this Commission simply to address issues long-settled by past Commissions.
66. The greater danger in being distracted by the reconsideration of settled issues is to miss out on the more pernicious threat to objectivity that is inherent to the Government's approach to the Commission process. In the *PEI Reference*, Lamer C.J. explained that the objectivity requirement means that compensation commissions "must make recommendations on judges' remuneration by reference to objective criteria, not political expediencies."⁶⁷ He went on to explain that in order to ensure objectivity, the enabling legislation should list relevant factors to guide the Commission's deliberations. In sum, objectivity is about the task of compensation commissions being approached within a known and predictable framework, in order to guard against arbitrariness and politicization.
67. Allowing a party to disregard the work of past Commissions is to open the door to moving the goal posts every four years, when it suits one's purpose. This necessarily opens the door to arbitrariness and politicization, the very ill that the Commission process is meant to guard against.

III. REPLY TO OTHER ISSUES RAISED BY THE GOVERNMENT

68. The Association and the Council address below the other points raised in the Government's Submission.

A. Economic conditions

69. The Government's description of Canada's economic situation focuses too narrowly on Canada's current economic situation, ignoring Canada's positive longer-term forecast.

⁶⁶ *Reference Re Provincial Court Judges*, [1997] 3 S.C.R. 3 ("*PEI Reference*") at para. 69 [JBD at tab 25].

⁶⁷ *PEI Reference* at para. 73 [JBD at tab 25].

70. The Government's description of Canada's current economic situation is broadly consistent with the description set out at paragraphs 60 to 71 of the Judiciary's Submission. However, the Government does not provide projections for any key economic or fiscal indicators over the entire quadrennial period, with the exception of the projected CPI inflation at paragraph 27 of its submission.
71. For instance, at paragraph 26 of its submission, the Government states that economists have projected a "modest" GDP growth rate of 1.7 for 2016. The Government does not cite the letter prepared by the Department of Finance at tab 9 of the Joint Book of Documents which predicts a GDP growth rate of 2.2% in 2017 and an average 1.9% yearly growth rate over the 2016 to 2020 period. The Department of Finance's optimistic projections are consistent with the projections prepared by the Policy and Economic Analysis Program at the University of Toronto's Rotman School of Management, as set out at tab 14 of the judiciary's Book of Evidence and Documents.
72. Likewise, the Government states at paragraph 30 that "[r]ecent economic developments, however, are expected to push the Government back into a deficit, reducing the projected budgetary balance". Again, the Government only provides projected deficits to the 2017-2018 fiscal year. The projections the Government provided already show an expected decrease in the deficit from 2016-2017 to 2017-2018. It is reasonable to expect that the projected decline in the deficit over this period will continue to the end of the quadrennial period.
73. More to the point, the Government does mention that the Government's own decision to make significant investments in order to promote economic growth as part of its fiscal stimulus plan is to a large extent fueling the projected growth in deficit to the 2016-2017 fiscal year. As the judiciary points out in its main submission at paragraphs 65 to 66, this deficit spending will not seriously impact Canada's debt-to-GDP ratio. The Government's budget, released on March 22, 2016, does not alter the points made above. It confirms that the projected growth in deficit is to a large extent a function of the decision to promote economic growth.
74. In sum, while the judiciary agrees that there are challenges in Canada's current economic situation, it does not agree with the Government's statement at paragraph 23 of its submission that "[t]he Canadian economy remains fragile." Canada's underlying

economic and fiscal fundamentals are strong and do not present an obstacle to this Commission recommending an increase in judicial salaries.

B. Attracting outstanding candidates

75. As part of its arguments to the effect that there is no difficulty attracting outstanding candidates, the Government states that it is relevant to consider the income levels of lawyers from outside the private sector, pointing to the statistic of 36% of appointees coming from outside of private practice.⁶⁸
76. The Commission should be extremely cautious about such an argument. While it is important that appointees be drawn from both private practice and the public sector, the traditional pool for the majority of appointees has been private practice. It is therefore crucial that the Commission make salary recommendations that will ensure that outstanding candidates from private practice continue to be attracted to the Bench. The Commission should also consider that it is conducive to the health of a strong independent judiciary for the majority of appointees to the Bench to come from private practice, a sector where appointees were not in an employee-employer relationship with a public-sector entity.

C. Value of the annuity

77. Past Commissions have determined that it is appropriate to consider the value of the judicial annuity when comparing the income of self-employed lawyers with the salary of judges. The independent actuarial expert retained by the judiciary shares that view.
78. The Levitt Commission's expert, Mr. Sauvé, came to the conclusion that the value of the judicial annuity was 24.7% of the salary of *puisne* judges, and that is the value the Association and the Council relied on in the Judiciary's Submission.
79. Mr. Pannu in his report to this Commission takes the view that the value of the annuity is 36.5%, this figure being composed of the value of the retirement benefit at 32% and the disability benefit at 4.5%.⁶⁹
80. However, in arriving at the figure of 36.5%, Mr. Pannu applies a methodology that was accepted neither by Mr. Sauvé nor by the judiciary's expert before the Levitt

⁶⁸ Government's Submission at paras. 41-42.

⁶⁹ Pannu Report at 13 [Government's Book of Documents at tab 10].

Commission, Mr. FitzGerald, in 2012. That methodology consists in including the disability benefit in the valuation of the annuity. Mr. Sauvé said the following about that methodology: “we agree with the comment made by Mr. FitzGerald to the effect that the valuation of the disability benefits should be made as part of a broader benchmarking exercise including group insurance benefits.”⁷⁰

81. The actuarial expert retained by the Association and the Council in relation to the present commission cycle, Mr. Newell, agrees with Mr. FitzGerald and Mr. Sauvé.⁷¹ The disability benefit should be considered separately.
82. Mr. Newell’s methodology involves valuing the judicial annuity without consideration of the disability benefit. With that methodology, he arrives at the figure of 30.6% as the value of the judicial annuity.⁷² It should be noted that before being entitled to an annuity, judges need to meet certain criteria. Therefore, the value of the annuity varies — potentially very significantly — depending on when these criteria are satisfied.
83. Mr. Newell explains the reasons for the change from the figure of 24.7% arrived at in 2012.⁷³ One of the main reasons is the new mortality table applied by actuaries since the time of the Levitt Commission.
84. If Mr. Newell applied Mr. Pannu’s methodology of including the disability benefit in the calculations, he arrives at 32.4% in contrast to the figure of 36.5% of Mr. Pannu.⁷⁴ It is important to note that the retirement benefit of 28.5% included in the total figure of 32.4% cannot be compared with the figure of 30.6% arrived at using Mr. Newell’s methodology. Since the latter does not take the disability benefit into account, the retirement-benefit figures resulting from the two different methodologies are like comparing apples and oranges.⁷⁵ The judiciary submits that if a figure is to be used to represent the value of the judicial annuity it should be 30.6% at most.

⁷⁰ Letter of Mr. Sauvé to the Levitt Commission (February 14, 2014) at 3 [Reply BED at tab 7].

⁷¹ D. Newell, “Report on the Value of the Judicial Annuity” (March 29, 2016) (“**Newell Report**”) [Appendix C].

⁷² *Ibid.* at para. 14 [Appendix C].

⁷³ *Ibid.* at paras. 41-46 [Appendix C].

⁷⁴ The figure of 32.4% changes to 32.7% when a further adjustment is made in order to potentially replicate Mr. Pannu’s methodology.

⁷⁵ Newell Report at para. 50 [Appendix C].

85. The figure of 30.6% has been taken into account in the revised tables of the Association and the Council comparing the judicial salary with the income of self-employed lawyers, produced below in section G. It is useful to keep in mind certain observations made by Ms. Haydon about the comparative exercise in compensation analysis. She says that “[w]hile total compensation both monetary and non-monetary must be considered, it must be done more holistically rather than as a series of single observations.”⁷⁶ In that vein, it would be misguided to focus on the annuity as a form of judicial compensation or benefit without considering certain means at the disposal of self-employed lawyers such as professional corporations and income splitting. Mr. Pannu acknowledges that the decrease in the number of self-employed lawyers from 2010 to 2014 is a result of self-employed lawyers who have structured their practice as professional corporations.⁷⁷
86. It is noted in conclusion that while it is appropriate for the Commission to consider the benefit conferred upon judges by the judicial annuity, and to seek to ascribe a “value” to it, it would be wrong simply to gross-up judicial salaries and focus on the grossed-up amount when considering the adequacy of judicial salaries in comparison with the incomes of self-employed lawyers. That is so because the actual value of the judicial annuity to any particular judge is unknown. Moreover, the “value” of that potential benefit is highly subjective, and depends on a host of factors.

D. CPI as alternative to IAI as basis for statutory indexation

87. The Government has proposed that judicial salaries be adjusted annually based on CPI rather than IAI.⁷⁸ As set out above, this is the Government’s second attempt in as many Commission cycles to disturb the statutory indexation that has been in place since 1981. The Association and the Council strenuously object to any proposals that would undermine the existing statutory indexation of judicial salaries.
88. The IAI adjustment in s. 25 of the *Judges Act* is, along with the judicial annuity, one of the cornerstones of judicial financial security and, as described by the Scott Commission in the below excerpt, an integral part of the “social contract” entered into between the Government and the lawyers appointed to the Bench:

⁷⁶ Haydon Report at 20 [Appendix B].

⁷⁷ Pannu Report at 3 [Government’s Book of Documents at tab 10].

⁷⁸ Government’s Submission at paras. 152-160.

The provisions of s. 25 of the *Judges Act* are reflective of much more than a mere indexing of judges' salaries. They are, more specifically, a statutory mechanism for ensuring that there will be, to the extent possible, a constant relationship, in terms of degree, between judges' salaries and the incomes of those members of the Bar most suited in experience and ability for appointment to the Bench. The importance of the maintenance of this constant cannot be overstated. It represents, in effect, a social contract between the state and the judiciary. By its statutory terms, the judges, who by acceptance of judicial office close the door, on a permanent basis, to any real prospect of a return to their previous lives at the Bar, can at least be certain that their commitment in accepting a judicial appointment will not result over the years in a less favourable financial situation as between judicial service and practice at the Bar than that which prevailed at the moment of their appointment.⁷⁹

89. The Government proposes that this Commission recommend a change to this “social contract” on the ground, as stated at paragraph 152 of its Submission, that “CPI is a more modern and relevant measure of changes to the cost of living that will continue to ensure that judicial salaries are protected from erosion through inflation.”⁸⁰
90. It is unclear what the Government means when it states that CPI is “more modern”. Prof. Hyatt points out in his report that CPI has been measured in Canada since at least 1914.⁸¹
91. As regards the “relevance” of IAI as compared to CPI as an index to adjust judicial salaries, it is altogether clear that the more “relevant” – and hence appropriate – index is the IAI. As Prof. Hyatt sets out in his report, “[c]hanges in the IAI reflect changes in weekly wages, including changes in both the cost of living and the real wage (the standard of living)” whereas “CPI measures only changes in the prices of a given basket of goods and services.” This means that adjusting judicial salaries by IAI results in “annual earnings of Judges keeping pace with the annual earnings of the average Canadian”:

⁷⁹ Scott Report (1996) at 14-15 [BED at tab 28].

⁸⁰ Government’s Submission at para. 152 [emphasis added].

⁸¹ Letter from Doug Hyatt dated March 23, 2016 (“**Hyatt Report**”) at 3 [Appendix D].

The IAI reflects the average weekly earnings of employed Canadians. Changes in these earnings over time are due to two primary factors: changes in weekly hours of work; and changes in the wage rate per unit of time (for example, the hourly wage).

Changes in the wage rate, in turn, reflect changes in general price inflation and changes in productivity. Productivity increases when workers produce more in the same amount of time. Wage changes due to changes in productivity are generally referred to as real wage changes, as distinct from nominal wage changes, which are due to price inflation. Real wage increases, for example, reflect the extent to which workers are able to increase their purchases and, consequently, real wage increases are often interpreted as a measure of advances in the standard of living.

If periodic wage adjustments were restricted to price inflation only, then real wage changes experienced, on average, by all other workers would be ignored. Wage adjustments based upon the CPI alone would be expected to result in lower total (nominal plus real) wage increases over time.⁸²

92. Put another way, if judicial salaries were indexed according to CPI, judges would not be able to share in the general increases in productivity that the average Canadian worker experiences. This is particularly important for judges, given that they are subject to a statutory prohibition on engaging in any supplementary employment, pursuant to s. 55 of the *Judges Act*. Unlike the average Canadian worker, judges cannot enter into business and professional ventures to take advantage of Canada's economic progress.
93. The Government further questions the relevancy of IAI at paragraph 156 of its Submission by stating that "IAI is based on average weekly wages and salaries of typical 'wage-earners' with whom judges share few if any characteristics." As Prof. Hyatt points out, the IAI does include the wages of those employed in the "Legal Services" industry.⁸³ Further, the same complaint that the Government levels against IAI can be applied to CPI, in that "the basket of goods and services that go into measuring the CPI for all Canadians may not be relevant to the consumption patterns of Judges".⁸⁴
94. It is worth noting that switching from IAI to CPI would most certainly reduce judicial salaries comparatively, which is likely the true motive behind the Government's proposal. As Prof. Hyatt notes, "between the period 2004 and 2015, the IAI increased by 34.1

⁸² *Ibid.* at 1-2, [Appendix D].

⁸³ *Ibid.* at 2 [Appendix D].

⁸⁴ *Ibid.* at 2 [Appendix D].

percent” while “CPI advanced by 20.9 percent over the same period.”⁸⁵ Similarly, the Office of the Chief Actuary has forecasted that IAI will be 1.8% in 2016, 2.2% in 2017, 2.4% in 2018 and 2.6% in 2019.⁸⁶ By contrast, CPI is only expected to be 1.6% in 2016, and 2.0% in 2017, 2018 and 2019.⁸⁷

95. As noted by Prof. Hyatt, the choice of the IAI rather than the CPI as the index for the annual adjustment of judicial salaries is perfectly logical, just as it is logical that the judicial annuity is adjusted based on the CPI. As Prof. Hyatt explains:

I note that the Government makes no mention of the fact that its proposal would do away with the distinction that the legislation currently makes, for logical reasons, between the IAI and the CPI to adjust benefits payable under the *Judges Act*. The rationale for indexing earnings to the IAI (s. 25(2)), but retirement benefits to the CPI (s. 42(1)), as supplemented by the *Supplementary Retirement Benefits Act*, is that employment earnings changes over time are comprised of both inflation and increases in the productivity of workers (i.e., workers produce more per unit of time than before). It is logical that judicial salaries be adjusted by an index reflecting increases in both prices and productivity. Because they are not working, retired workers do not contribute to increased productivity. Consequently, it is logical that increases in retirement income should reflect changes in prices only and not include increases in productivity.⁸⁸

96. The annual application of the IAI statutory adjustment plays an important role in safeguarding financial security. For those lawyers who accept a judicial appointment and enter into the “social contract” mentioned by the Scott Commission, the IAI adjustment provides some protection against inflationary tendencies. For those lawyers considering a judicial appointment, the adjustment, because it helps judicial salaries keep pace with salary increases generally, ensures that an appointment to the Bench remains attractive to outstanding candidates. The Government has not put forward sufficient reasons for this Commission to recommend such a major change to the makeup of judicial compensation, especially in light of the Levitt Commission’s very recent refusal to impose a cap on the IAI, and its cautionary observation that the IAI is an element in the architecture of judicial compensation that should not lightly be tampered with.

⁸⁵ *Ibid.* at 2 [Appendix D].

⁸⁶ Letter from L. Frappier, Office of the Chief Actuary, Office of the Superintendent of Financial Institutions, dated February 25, 2016 [JBD at tab 7].

⁸⁷ Letter from Assistant Deputy Minister Nick Leswick to Anne Turley, February 24, 2016 [JBD at tab 9].

⁸⁸ Hyatt Report at 2-3 [Appendix D].

E. Pre-appointment income study

97. The Government has reiterated its request for a PAI study. The Association and the Council continue to oppose it for lack of usefulness, and specifically because of the irrelevant, self-serving, and incomplete nature of the study and data that would be generated by it, the whole as set out in their submission of January 29, 2016 on this issue. Nothing in the submissions of the parties since then provides a basis to justify a PAI study, or for this Commission to depart from the conclusions of the Block Commission in this regard.
98. Ms. Haydon was asked for her opinion as to the usefulness of PAI data to the mandate of the Commission. Her view is that “neither a PAI study nor a quality-of-life study will produce data that are reliable or needed to assist the Commission with its mandate”.⁸⁹ As regards PAI, she explains that the determination of compensation is a forward-looking exercise, while the income of a particular individual appointee is highly contextual and not a fair or reasonable predictor of future income. She adds:

[T]he determination of a compensation level for the judiciary is not intended to serve as recognition of a promotion, as might be typical in either the public or private sectors, but is, rather, a single value that accommodates both new appointments as well as highly experienced judges. As such, the level of income prior to the appointment is not relevant to the question before the Commission.⁹⁰

F. Quality-of-life study

99. The Government has proposed that the Commission undertake a study “that would examine the intangible aspects of judicial life that factor into applying for judicial appointment – a quality of life study”. The Government’s stated reason for proposing a quality-of-life study is to give the Commission “a more complete picture of judicial life” by getting the judiciary’s views on the non-monetary considerations that may inform a lawyers’ decision to apply to the bench.
100. The Government has not provided any particulars on the proposed study other than to state that the proposed study would “identify, describe and perhaps even quantify the intangible advantages and disadvantages associated with judicial office”.

⁸⁹ Haydon Report at 5 [Appendix B].

⁹⁰ *Ibid.* at 5 [Appendix B].

101. While the Government does refer to two studies that were commissioned in the United Kingdom in 2005 and 2010 as studies that are similar to the proposed quality-of-life study, neither of these studies involved a comprehensive examination of the non-monetary aspects of judicial life. The researchers in the 2005 and 2010 studies (found at tabs 47 and 48 of the Government's Book of Documents) simply asked judges what the main reasons were that had led them to taking up a judicial post, and barristers and advocates the main reasons why they would or would not consider taking up a judicial post. Both surveys included salary considerations.
102. The Association and the Council question whether there is any value to a quality-of-life study, or whether it would produce any useful information.
103. To the extent the Government is proposing something other than what was done in the United Kingdom in 2005 and 2010, it is not clear that a survey into judges' current view on the non-monetary aspects of their position is relevant to the Commission's inquiry into the adequacy of judicial salaries. This Commission is not tasked with inquiring into the judicial quality of life, but rather inquiring into salary and benefits that will guarantee judicial independence and continue to attract outstanding candidates. The Government needs to explain how the proposed quality-of-life study would provide the Commission with reliable and useful data that would assist it to fulfil its mandate.
104. Ms. Haydon characterizes such a study as "unheard of", and observes:

Quality of life is a highly personal experience, and as the Government notes, intangible, and as such should not be a consideration in compensation determination.⁹¹

G. Methodological issue in the CRA self-employed lawyers data

105. One of the tables that CRA provided to the parties in advance of the Commission process shows the net professional income of self-employed lawyers in all of Canada split into 20 percentile rows (from 5% to 100%).
106. In the tables that CRA produced during previous quadrennial cycles, the income shown on any specific percentile row showed the actual percentile income. That is, the income on the xth percentile row showed the xth percentile income. CRA changed the way it

⁹¹ *Ibid.* at 5 [Appendix B].

presented the data in the tables it provided for this quadrennial cycle in response to new confidentiality standards. Whereas the x^{th} percentile row previously showed the actual x^{th} percentile income (i.e. the 75th percentile row showed the actual 75th percentile income), the x^{th} percentile row now shows the mean of the incomes falling between the $(x-5)^{\text{th}}$ and the x^{th} percentiles (i.e. the 75th percentile row now shows the mean of all incomes between the 70th and 75th percentile).

107. The Association and the Council continued to rely on the income shown in the x^{th} percentile row to show the x^{th} percentile income when they prepared the tables in their main Submission. In light of CRA's different presentation of its data, a calculation must be done to arrive at the income at a certain percentile. Instead of using the x^{th} percentile row as a substitute for the actual x^{th} percentile income, one arrives at the actual x^{th} percentile income by taking the average of the x^{th} percentile row and the $(x+5)^{\text{th}}$ percentile row. That is, in order to provide an estimate for the 75th percentile income, one takes the average of the 75th percentile row (the mean of the incomes falling between the 70th and 75th percentile) and the 80th percentile row (the mean of the incomes falling between the 75th and the 80th percentiles).
108. Counsel for the Government brought the difference in the methodology of CRA to the attention of counsel for the Association and the Council. A discussion was then had with a representative of CRA to obtain some clarification on this point. The Association and the Council have now revised Tables 5 and 6 to show the percentile incomes for Canada as calculated according to the new methodology:

[Tables on next page]

Table 5 - REVISED
Comparison of salary of *puisne* judges with net professional income of self-employed lawyers at 75th percentile
(Net professional income \geq \$60,000, Age group – 44-56)
Canada and top ten CMAs, 2010 to 2014

Year	75 th Percentile Income		Salary of <i>Puisne</i> Judges		
	Canada	Top ten CMAs	\$	% Difference from	
				Canada	Top ten CMAs
2010	<u>\$403,953</u>	\$471,330	\$271,400	<u>-32.8%</u>	-42.4%
2011	<u>\$392,188</u>	\$450,845	\$281,100	<u>-28.3%</u>	-37.7%
2012	<u>\$395,660</u>	\$457,880	\$288,100	<u>-27.2%</u>	-37.1%
2013	<u>\$390,983</u>	\$437,055	\$295,500	<u>-24.4%</u>	-32.4%
2014	<u>\$404,025</u>	\$454,915	\$300,800	<u>-25.5%</u>	-33.9%

Table 6 - REVISED
Comparison of salary of *puisne* judges with net professional income of self-employed lawyers at 75th percentile
(Net professional income \geq \$80,000, Age group – 44-56)
Canada and top ten CMAs, 2010 to 2014

Year	75 th Percentile Income		Salary of <i>Puisne</i> Judges		
	Canada	Top ten CMAs	\$	% Difference from	
				Canada	Top ten CMAs
2010	<u>\$438,378</u>	\$501,590	\$271,400	<u>-38.1%</u>	-45.9%
2011	<u>\$428,035</u>	\$484,310	\$281,100	<u>-34.3%</u>	-42.0%
2012	<u>\$430,363</u>	\$491,575	\$288,100	<u>-33.1%</u>	-41.4%
2013	<u>\$419,010</u>	\$465,230	\$295,500	<u>-29.5%</u>	-36.5%
2014	<u>\$435,450</u>	\$482,380	\$300,800	<u>-30.9%</u>	-37.6%

109. As can be seen from the above revised tables, there is in fact a greater discrepancy between the judicial salary and the income of self-employed lawyers than initially set out in the Judiciary's Submission.⁹² Specifically, in revised Table 6 there is a 30.9% difference between the 2014 judicial salary and the income of self-employed lawyers at the 75th percentile across Canada. The figure in the original Table 6 was 25.8%.

⁹² Judiciary's Submission at para. 121.

110. Finally, the Association and the Council have prepared a revised version of Table 7, showing the percentile incomes for Canada as calculated according to the new methodology as well as the value of judicial salaries including the annuity valuation of 30.6%, as set out in Mr. Newell’s report attached to these Reply Submissions at Appendix D:

Table 7 - REVISED
Comparison of salary plus annuity of *puisne* judges
with net professional income of
self-employed lawyers at 75th percentile
(Net professional income ≥ \$80,000, Age group – 44-56)
Canada and top ten CMAs, 2010 to 2014

Year	75 th Percentile Income		Salary of <i>Puisne</i> Judges		
	Canada	Top ten CMAs	\$ Includes Annuity valuation of <u>30.6%</u>	% Difference from	
				Canada	Top ten CMAs
2010	<u>\$438,378</u>	\$501,590	<u>\$354,448</u>	<u>-19.1%</u>	<u>-29.3%</u>
2011	<u>\$428,035</u>	\$484,310	<u>\$367,117</u>	<u>-14.2%</u>	<u>-24.2%</u>
2012	<u>\$430,363</u>	\$491,575	<u>\$376,259</u>	<u>-12.6%</u>	<u>-23.5%</u>
2013	<u>\$419,010</u>	\$465,230	<u>\$385,923</u>	<u>-7.9%</u>	<u>-17.0%</u>
2014	<u>\$435,450</u>	\$482,380	<u>\$392,845</u>	<u>-9.8%</u>	<u>-18.6%</u>

111. As is apparent in revised Table 7, the adjustment to the annuity valuation is more than offset by the increase in the relevant all-Canada percentile incomes resulting from the revised CRA methodology. Whereas in the original Table 7, the gap between all-Canada income and the judicial salary including the annuity was 7.5%, it is now 9.8%. In the case of the top ten CMAs, the gap is now 18.6%, whereas it was 22.2% in the original Table 7.

112. As mentioned in the section on the judicial annuity above, when comparing the judicial salary with the incomes of self-employed lawyers, certain financial means available to self-employed lawyers, such as professional corporations and income splitting, must be taken into account. In light of those vehicles, used to reduce the taxable income of self-employed lawyers, the figures in the CRA data should be approached with some caution since those figures would no doubt increase in the absence of such vehicles. Therefore,

the gap between the income of self-employed lawyers and the salary of *puisne* judges is actually greater than is reflected in the tables.

113. In light of the above, the request for a salary increase as articulated in the Judiciary's Submission is supported by the CRA data.

IV. CONCLUSION

114. The Association and the Council reiterate the arguments set out in the Judiciary's Submission filed on February 29, 2016. They request that the salary of *puisne* judges be increased by 2% as of April 1, 2016, by 2% as of April 1, 2017, by 1.5% as of April 1, 2018, and by 1.5% as of April 1, 2019, all exclusive of statutory indexing based on the IAI. The Government has presented no convincing argument in support in the measures it has proposed. The IAI should not be replaced by the CPI, and the DM-3 comparator should not be dispensed with.

The whole respectfully submitted on behalf of the Canadian Superior Courts Judges Association and the Canadian Judicial Council.

Montréal, March 29, 2016



Pierre Bienvenu, Ad. E.
Azim Hussain
Jamie Macdonald
Norton Rose Fulbright Canada LLP
1 Place Ville-Marie
Suite 2500
Montréal, Québec H3B 1R1

APPENDIX A: Past Government submissions and Commission conclusions regarding the DM-3 comparator

Government submission	Commission report
Block Commission	
<p>47. In the Government's view, the most relevant public sector comparator group is that of the most senior federal public servants (EX I-5; DM 1-4; Senior LA [lawyer cadre]). While the 1999 Drouin Commission and earlier Triennial Commissions had historically relied on the DM-3 salary midpoint as a comparator, the 2003 Commission noted that many officials in this broad spectrum of senior government officials, and not just those at the DM-3 level, potentially have a level of experience and capacity comparable to that of candidates for appointment to the Bench.</p> <p>48. The Government agrees that comparability to this broader spectrum of senior officials is merited because these executives share capacity, skills and abilities comparable to judges, as well as a commitment to making a contribution to public life. Of equal force, reference to the senior executive cadre is merited because the financial position of the Government is reflected in part in the salaries it is prepared to pay its most senior employees.</p>	<p>103. The DM-3 level, as can be seen, has been a comparator for nearly every previous commission, and we believe, like the Courtois Commission, that this "reflects what the marketplace expects to pay individuals of outstanding character and ability, which are attributes shared by deputy ministers and judges". The EX/DM community proposed by the Government as a comparator would be a significant departure from the DM-3 comparator used by previous commissions. The salary increases provided to the EX/DM community may provide an indication of the "priority the Government accords to compensate senior professionals of high ability who have chosen service in the public interest over the private sector", but it does not provide the single, consistent benchmark that is provided by the DM-3 level and the remuneration associated with that level.</p>
Levitt Commission	
<p>121. The Government submits that in light of the small number of DM-3s (13 compared to 1,117 judges), their short tenure (4.4 compared to 21.6 years), and the fact that the entire deputy minister population has a level of experience comparable to judges, if this Commission considers a public sector comparator, it should consider all deputy ministers and not only DM-3s. The judicial salary is consistent with both judges and deputy ministers being paid as "individuals of outstanding character and ability."</p>	<p>24. The Government submitted that, if the Commission felt the need to have a public sector comparator group, it should not be the highly-ranked deputy minister ("DM-3") group but rather all persons paid from the public purse or, if that submission was not accepted, all deputy ministers.</p> <p>25. The Government also took the position that, because variable compensation is not a tool which can be used in a judicial compensation scheme, when comparing the compensation of judges and public servants the Commission should ignore the variable portion of senior public service compensation. In other words, the Government took the position that it would be appropriate to compare the salary of a judge with the salary of a deputy minister and yet ignore the substantial performance and merit pay opportunity afforded to deputy ministers as part of their total cash compensation. The Commission found this position to be inconsistent with the approach adopted by past Commissions, with customary compensation practice,</p>

and with common sense.

26. The Government also made submissions that focussed on job content – a form of task analysis. This type of analysis may be of some use in pay equity or other similar contexts but it was of no assistance to the Commission in arriving at a view as to “what the marketplace expects to pay individuals of outstanding character and ability, which are attributes shared by deputy ministers and judges” – words first penned by the Courtois Triennial Commission, which have been cited with approval by all preceding Quadrennial Commissions. The Commission took the view that the Government’s analysis failed to give sufficient weight to the constitutional status and role of the judiciary and also the importance of its appearance and image to the effective performance of that role. The Commission found this submission to be a semantic exercise completely detached from workplace reality and, accordingly, of no relevance to the Commission’s enquiry

27. Like its predecessors, the Commission determined that the scope of the chosen public sector comparator group is a matter of judgment to be made by reference to the objective of the Commission’s enquiry as first framed by the Courtois Commission. While the Commission recognizes that the choice of the DM-3 group may not be regarded as ideal due to its small sample size and other comparability issues such as tenure in position, this Commission, like the Drouin and Block Commissions, focussed on the purpose of the analysis as articulated above and concluded that the seniority of the group and the functions its members discharge make it the best choice as a public sector comparator group for the judiciary. This choice has the additional advantage of eliminating outliers both above and below the DM-3 category.

Judicial Compensation and Benefits Commission

Commentary on the *Report on the Earnings of Self-Employed Lawyers for the Department of Justice Canada in Preparation for the 2015 Judicial Compensation Benefits Commission (Pannu Report)*

March 29, 2016

Table of Contents

1.0 Introduction	3
2.0 Process	7
3.0 Analysis	9
3.0 Considerations of Age Adjusted Salaries	12
4.0 Salary Exclusions	15
5.0 Geography	17
6.0 Judicial Annuity Model – Calculating Total Compensation	19
7.0 Conclusions	21
Appendix A - Curriculum Vitae, Sandra Haydon	22

1.0 Introduction

Sandra Haydon & Associates Inc. (SH&A)¹ was retained by Norton Rose Fulbright Canada LLP on behalf of the Canadian Superior Courts Judges Association and the Canadian Judicial Council to provide a commentary on the report authored by Mr. Haripaul Pannu, *Report on the Earnings of Self-Employed Lawyers for the Department of Justice Canada in Preparation for the 2015 Judicial Compensation and Benefits Commission*, February 25, 2016. More specifically, SH&A was asked to comment on Mr. Pannu's conclusions regarding the "filters" applied to analyze CRA data on self-employed lawyers:

- 65th vs. 75th percentile
- age-weighting vs. age range
- low-income exclusion
- top 10 census metropolitan areas ("CMAs") vs. all of Canada

Based on my experience, the use of filters is not only a normal component of compensation benchmarking, but a much needed element to ensure data integrity and a selection of data that reflects and supports broader compensation philosophy. Each of percentile, sector (self-employed lawyers) and geography are common filters, or "data cuts" as they are referred to in compensation benchmarking. While the use of age and income exclusion as specific filters is atypical, in the context of judicial compensation it is reasonable and necessary.

I am of the view that both age and income exclusions serve as a suitable proxy for what is absent in this undertaking, that is, the ability to compare like or similar jobs. Ensuring that the two jobs that are being compared are generally the same is foundational to compensation benchmarking. Given that the role of a judge is unique, it is not possible to find a perfect comparator. However, recognizing that experienced lawyers are the core pool from which appointments are made, each of age and income can serve as a proxy to ensure that the comparisons being made are fair and reasonable.

Mr. Pannu's report was prepared for the Government of Canada to provide an analysis on the net income of self-employed lawyers for purposes of comparison to the income level of federally appointed judges. Data were drawn from 2010 – 2014 taxation information provided by the

¹ My curriculum vitae is included as Appendix A

Canada Revenue Agency ("CRA"). Mr. Pannu reported that based on his testing, he is confident of the reliability of the data. I have not undertaken any reliability testing, and have relied on the data made available in his report. This is of note given that I have relied on his data to reframe a number of his conclusions. It may be that had I worked with the raw data from the CRA, I would have arrived at a different starting point than Mr. Pannu.

As my report makes clear, I have reservations about the manner in which Mr. Pannu has used the data to arrive at his overall conclusion, that being, "[t]he judicial salary of \$300,800 per annum [in 2014] would place it in the 75th to 80th percentile nationally...and at least the 75th percentile in all major urban centres in Canada except Toronto and Calgary (70th percentiles). That would mean the judicial salary is greater than the net incomes of 75% of self-employed lawyers" (page 15). Not only do I strongly disagree with Mr. Pannu's conclusion, but as my report makes clear, I have concerns about the analytic methods he has used.

My report provides comments on Mr. Pannu's report in relation to each of:

- Process (page 3 of Mr. Pannu's report)
- Analysis (page 4)
- Salary Exclusion Impact (page 7)
- Major Metropolitan Centres (CMAs) (page 9)
- Judicial Annuity Scheme - Calculation of Total Compensation (page 11)

While Mr. Pannu provides data for a number of "filters" for purposes of comparison, I have summarized the data in Table 1 (see following). In his report, Mr. Pannu applied an age-weighted salary computation only to the 2014 data. As the table makes clear, there are a number of available conclusions, each dependent on the data model considered.

The form of presentation in Mr. Pannu's report poses some challenges in interpreting his data analysis and conclusion. In the practice of compensation analysis, the presentation of data should adhere to a standard of transparency, consistency and ease of understanding which is suitable for non-compensation professionals. Mr. Pannu's report gives rise to some concern about a lack of clarity both in definition and underlying assumptions. I have tried to reframe some of his observations and enhance their transparency. In providing this additional data, I have consistently used the 75th percentile, for reasons set out below. Mr. Pannu, however, has

used mathematical calculations which consistently result in the lowest possible number, rather than, in my opinion, the right number.

Norton Rose Fulbright has also asked me to comment on the usefulness to the Commission of the Government-proposed pre-appointment income (PAI) study and quality-of-life study. While I understand the arguments the Government has put forward, I am of the view that neither a PAI or quality-of-life study will produce data that are reliable or needed to assist the Commission with its mandate.

Determination of compensation is a forward looking practice answering the question as to what is the value of a job given agreed-to principles, such as those articulated in the *Judges Act*, and in light of relevant compensation market practices and levels. The income of a particular individual appointee is itself highly contextual and not a fair or reasonable predictor of future income based on a substantially different occupation. Moreover, the determination of a compensation level for the judiciary is not intended to serve as recognition of a promotion, as might be typical in either the public or private sectors, but is, rather, a single value that accommodates both new appointments as well as highly experienced judges. As such, the level of income prior to appointment is not relevant to the question before the Commission. The question remains the value of the judiciary in its entirety.

A quality-of-life study is an unheard of practice for purposes of compensation benchmarking for a number of reasons not the least of which would be coming to agreement on what elements are to be included, and then how to objectively cost and account for the value of quality-of-life indicators. Through both the CRA data as well the salary level for DM-3, the Commission has before it what is arguably the best data for benchmarking the judiciary and based on that, there is no need to introduce extraneous and unreliable data. Quality of life is a highly personal experience, and as the Government notes, intangible, and as such should not be a consideration in compensation determination.

Lastly, by way of an overall observation, I would like to emphasize that compensation benchmarking is not a pure science of averages, weightings and percentiles. Rather, it is a blend of each of math, context and judgment. In order for the data to have meaning, it is essential that a full qualitative accounting of purpose and context be brought to bear. In my opinion, these are clearly absent from the Pannu report.

Table 1 – Summary of Data, Pannu Report

Baseline Data			65 th Percentile				75 th Percentile			
Year	Number of Observations	Judicial Salary	All Data	Age Adjusted	With Exclusion 60K	With Exclusion 80K	All Data	Age Adjusted	With Exclusion 60K	With Exclusion 80K
2010	22,110	\$271,400	\$198,030		\$269,948	\$299,088	\$274,058		\$357,463	\$387,830
2011	19,310	\$281,100	\$189,995		\$265,795	\$295,658	\$266,843		\$350,713	\$380,4445
2012	19,190	\$288,100	\$192,658		\$265,093	\$294,458	\$267,223		\$351,043	\$384,465
2013	19,360	\$295,500	\$187,833		\$263,688	\$289,758	\$260,088		\$344,423	\$373,273
2014	18,550	\$300,800	\$188,138	\$208,306	\$265,018	\$293,615	\$261,363	\$267,041	\$352,513	\$383,840

The 2015-2016 judicial salary is \$308,600. I understand that this will be increased by statutory indexation on April 1, 2016.

2.0 Process

Mr. Pannu begins his report by stating that he has relied on the entire range of available data and that doing so will allow for the determination as to which statistical value will be an appropriate benchmark for setting judicial salaries. While it is true that compensation practice demands that a range of statistical values be considered, I think Mr. Pannu is putting the cart before the horse. In the work I have done, particularly with organizations that clearly articulate a talent management strategy of being able to attract outstanding talent,² the target market placement comes first. Testing the validity of the current compensation level against that target then becomes the task at hand. This is particularly true in working with public sector organizations where they face a more complex foundational compensation philosophy having to blend public and private sector compensation data. For private sector organizations, it is normal practice to focus on other private sector organizations, most often based on a common geography, a similar industry, and with clarity in desired target percentile. By contrast, public sector organizations often operate in multiple geographies, draw talent from both the public and private sectors (and multiple industries within both) and as such, are confronted with a more complex challenge in setting the foundation for building a compensation philosophy or strategy.

I disagree with Mr. Pannu's perspective that each of the 50th, 65th and 75th percentiles are used when the goal is the attraction of "exceptional individuals" and that it is about supply and demand (page 3). This is an overly mechanical view. Moreover, based on my experience, the 75th percentile tends to be the bottom target where the goal is the attraction of exceptional or outstanding individuals. I note that the Government itself, through its experts before the Drouin Commission, proposed the 75th percentile. It is not uncommon that organizations focus on higher target percentiles, including up to the 90th percentile. While use of the 90th percentile is the exception, in my recent experience, a number of client organizations, in the broader public sector, have elected to use the 90th percentile for a number of specialized cases, primarily in both the medical sphere as well as in what is known as complex business analytics.

That said, I would also caution in simply taking compensation principles and practices that were designed for a very different workforce model than is found in Canada's judiciary. The judiciary is unlike any of the talent pools from which appointees are drawn – academic, government /

² I have been referred to s. 26(1.1) (c) of the *Judges Act*, which refers to "the need to attract outstanding candidates to the judiciary".

public sector, or the private sector. Each of these, in different ways, has a series of other compensation levers as well as broader talent management practices that work in conjunction with compensation practices. Compensation practices and principles that were designed to fit each of these markets do not easily translate to the judiciary and given that, some caution in application is warranted.

In this particular context – consideration of percentile -- I am of the view that setting a desired target percentile is not simply an exercise in supply and demand. Rather, questions as to the inherent value of each individual judge and the judiciary overall must be considered. One measure of communicating the importance of the judiciary is setting compensation levels that convey the importance of the institution.

Mr. Pannu's analysis and related conclusions lack this important context, and in doing so, miss the mark. Overall, I find that Mr. Pannu's analysis retreats to the lowest common denominator, which seems inappropriate to the task at hand.

3.0 Analysis

The first data set offered in the Pannu report is a five year profile of the low and high net income percentiles (5th and 95th) combined with a chart that shows, not surprisingly, that the higher the percentile, the higher the net income (page 4). Table 2 of my report provides a summary of Mr. Pannu's data for the year 2014.

Table 2 – Self Employed Lawyer, All Net Income Data, 2014

Percentile	5 th	95 th
\$	\$ -1,773	\$882,565

I do not understand why Mr. Pannu starts at this point. Neither the 5th percentile nor the 95th percentile has been considered by any previous Commission, nor does Mr. Pannu ever return to these data. More importantly, though, it provides a misleading summary of the actual data. In Appendix D of his report, Pannu provides a more fulsome summary of the data, albeit one that is based on "all data".

In compensation analysis, one would never present such a blunt picture of data, particularly where it is of no continuing value. As noted earlier, while "income exclusion" is both unique and appropriate to the design of judiciary compensation levels, compensation professionals would not simply accept, for example, 18,500 data points for 2014. Prior to relying on the data, experience, judgement and math would be used to refine the data model and ensure suitability and integrity. Offering a summary based on 18,550 data points simply distracts from the question to be resolved. The task at hand is not to present all data, but to provide data that assist the Commission in determining specific compensation levels for the judiciary. While later sections of my report will address the appropriateness and necessity of refining the data through various "filters" or "cuts" – age, geography, income exclusions – Table 3 provides a summary of data from the Pannu report that includes data where income exclusion has been used.

Table 3 – Self Employed Lawyer, 2014, with salary exclusion (Appendix D, Pannu)

Percentile	All Data	Excludes <\$60k	Excludes <\$80K
5 th	-15,275	\$64,555	\$84,555
50 th	\$110,145	\$17,7575	\$201,265
65 th	\$173,320	\$247,340	\$275,740
75 th	\$237,015	\$325,020	\$356,020
95 th	\$615,145	\$740,860	\$781,855
100 th	\$1,149,985	\$1,296,265	\$1,345,040

As Table 3, above, makes clear, and is a much better starting point for deliberation and discussion, when income data is presented that considers exclusion of low income levels, the picture is dramatically different. Across Canada, for lawyers of all age groups and all geographies, income levels are much higher than Mr. Pannu presented through his initial data.

Mr. Pannu suggests that a more “appropriate” view of the data is required via use of the median of \$118,993 for 2014. My view is that this data point is not of assistance to the Commission in its deliberations. Mr. Pannu acknowledges as much, saying that the 50th percentile, or \$118,993 in this case, is likely not the right target, but the 65th or 75th percentile is more appropriate for consideration for the judiciary (page 5). Based on this conclusion – that is offered without clear rationale – he provides the following table as an illustration that, on base salary alone (that is absent the value of the annuity), the 2014 judicial salary of \$300,800 approximates the 78th percentile.

**Table 4 - 2014 Net Professional Income (Pannu, page 5)
(without salary exclusion)**

Year	65 th P	75 th P	Judiciary Salary	Approximate Percentile
2014	\$188,138	\$261,363	\$300,800	78 th

I find this to be misleading; it is simply too blunt to provide guidance to the Commission. While I will return to each of age, geography and salary exclusions as reasonable and much needed “filters” or “cuts” to the data, using only salary exclusion, I arrive at a conclusion that is very different from Pannu’s conclusion above. While the judicial salary exceeds the 65th P, although far less than suggested by Mr. Pannu, it is well below the 75th P, whether a \$60,000 or \$80,000 exclusion is relied on (Table 5).

Table 5 – Income Exclusions, 2014, Net Professional Income

Percentile	Excludes <\$60k	Excludes <\$80K	Judiciary
65 th	\$247,340	\$275,740	\$300,800
75 th	\$325,020	\$356,020	

As noted in the introduction, the presentation of data must be transparent. The conclusion that the current judicial salary sits somewhere between the 75th – 80th percentile is true only when the data used is so blunt, so rough, as to distort more thoughtful consideration of the question at hand.

Based on Mr. Pannu’s analysis, the challenge appears to be how can it be justified to pay the judiciary in excess of the 75th percentile. Where much-needed nuancing of the analysis is offered, the question becomes the exact opposite – how can it be justified paying the judiciary below the 75th percentile?

3.0 Considerations of Age Adjusted Salaries

Mr. Pannu's report next turns to a consideration of age as a potential filter for the CRA raw data and while he acknowledges the appropriateness of using such a filter, his use of a weighted average is not a defensible model, nor is it typical. In my more than 20 years of undertaking compensation studies that focus on the determination of a base salary, I have relied on the use of weighted average very rarely, and can, in fact, point to only one specific example where a weighted model was required. In that particular instance, the client organization had significant internal equity problems that stretched back decades. As a means to create a greater degree of internal equity and provide a stronger foundation for establishing and maintaining both internal and gender-based wage parity, a weighted model was used. This approach was used to ensure that the mistakes of the past were not repeated. While the use of weighting is very atypical in compensation benchmarking, it is my understanding that in actuarial studies, the use of weighting is a more common practice.

While it is true that appointments occur at a wide range of ages, as is typical in most data sets, those points at the far ends of the spectrum are more the exceptions than the rule.

Compensation design, however, is founded on building for the rule rather than the exceptions.

It is my understanding that appointments to the judiciary can occur at any time after 10 years, and that while appointments occur under the age of 44 and over the age of 60, the average age of appointment is 52 and a majority of candidates are selected from the ages between 44 – 56. It is also my understanding that past Commissions have focused on the age bracket 44 - 56. The combination of past practice and erring on the side of what is more typical is far and away a better model than a weighted model that skews that data in a manner that is an inaccurate profile of the vast majority of the appointment pool. A weighted model, in this context, simply serves to distort the data. As reported by Mr. Pannu, this age bracket, 44 – 56, accounts for over two-thirds of all appointments.

If an age-weighted approach is to be applied, common sense suggests that narrowing the field of data to reflect the predominant age categories is a more accurate profile for purposes of determining judicial salaries. The goal of market analysis is to provide the best representation, not the lowest, or the highest. Table 6 provides a comparison of Mr. Pannu's data, and a more selective data model that accounts for two-thirds of appointments – those appointments between ages 44 - 56.

As can be seen in Table 6, where under 44 and 56 or above age categories are excluded, the 75th percentile rises dramatically – from \$267,041 (Pannu report) to \$329,761. The number of \$329,761 is based on a weighted average approach within the 44-56 range to allow for comparison Mr. Pannu's figure. However, where a non-weighted average is used for the data, the outcome is not materially different.

Table 6 – Age Adjusted Salary for Judiciary, 2014 Income

Age at Appointment	Number of Appointments	Percentage of Appointments (entire age range)	75 th Percentile Pannu Data	Number (%) of Appointments (ages 44 to 56)	Exclude < 44 and > 56 @ 75 th percentile	Age Weighted Income
Under 44	34	5%	\$247,125			
44 to under 48	128	19%	\$340,830	128 (28%)	\$340,830	\$96,732
48 to under 52	153	22.7%	\$338,490	153 (34%)	\$338,490	\$114,831
52 to under 56	170	25.2%	\$313,570	170 (38%)	\$313,570	\$118,197
56 to under 60	121	19.9%	\$304,785			
60 to under 64	53	7.9%	\$257,260			
64 and above	16	2.4%	\$191,915			
Total Observations	675	100%		451 (100%)		
Age Adjusted Income			\$267,041			\$329,761

Similar to the consideration of income exclusions, when appropriate and reasonable age categories are considered, the conclusion is not that the judiciary is paid above the 75th percentile of self-employed lawyers, but that, in fact, the judiciary is below that market. A

balanced analysis and report would provide the Commission with each of these data points and the corresponding rationale for selecting one or the other. Data absent context is simply data. What is required for decision-making is information and context. I am of the view that Mr. Pannu's report avoids context and discussion. Once judgement is applied to the analysis of data, very different conclusions from those offered in the Pannu report are arrived at.

4.0 Salary Exclusions

Mr. Pannu opens his section on salary exclusions noting that such a practice is an atypical practice and “distorts the results of the salary information” (page 7). I totally disagree. In any data collection exercise, a number of filters are used to ensure data integrity. The market, as one might expect, is not comprised of well-organized data, and compensation professionals must bring their professional judgement to bear in offering reasoned and transparent cases for exclusions and refinements. While it is true that a pure salary exclusion is not used in the typical case, this is not a typical case. It is very uncommon to have such a large data population (18,550 for 2014) that is representative of so many dissimilar positions. While it is true that all data are derived from self-employed lawyers, there can be no doubt that there is a wide range in the nature of the legal practices included in the data. Simply being a self-employed lawyer does not make these data equal, or even necessarily similar.

There is good reason to exclude select age cohorts from the analysis to better reflect the core talent pool from which appointments are made. Equally, there are compelling arguments to exclude lower levels of income. A basic principle of compensation analysis is, as much as possible, to ensure that comparisons being offered are on like jobs. Given the unique model of the judiciary, this is not a simple task. In fact, this may be an impossible task, reminding us of the importance of context and use of judgement. It is reasonable to conclude that given the responsibilities assumed by all judges immediately upon appointment, comparison with seasoned legal practitioners is appropriate. While a straight line cannot be drawn between experience, excellence and income levels, there can be no doubt that there is a strong correlation.

Mr. Pannu concludes that “[a] more standard approach is to use a fair percentile benchmark without salary exclusion” (page 8). I would argue that most compensation professionals consider that data requires vetting and cleansing to arrive at a quality database. Typically, a filter such as quality of job match is used; a tool not available in this context. Given the talent pool that the Government should appoint from in light of the need to attract “outstanding” candidates, a focus on salary levels in excess of \$80,000 seems, if anything, a very conservative baseline. The data provided by Mr. Pannu with regard to salary exclusion, at the 75th percentile, is summarized in Table 7.

Table 7 – 75th Percentile <60k and <80k Salary Excluded, 2014, Net Income

Excludes <\$60k	Excludes <\$80K
\$293,615	\$383,840

As each reasonable filter is applied to the data, the conclusion offered by Mr. Pannu (“the judicial salary of \$300,800 per annum would place it in the 75th to 80th percentile nationally”) simply does not hold. If we use a conservative cut-off point of \$80,000 to refine the database, the judiciary is below the 75th percentile. I am of the view that additional modeling that considers a \$100,000 cut-off would be more appropriate. To use a cut-off of \$100,000 would be more reflective of typical benchmarking where “outliers” are removed from the database. Given that the “all data” profile provided by Mr. Pannu provides for a figure of \$237,015 at the 75th percentile, removing data that is less than 50% of that amount would meet a test of reasonableness as a definition of an “outlier.” While judgement is used to determine what constitutes an outlier in any particular data model, certainly in compensation where rates of pay are less than half of the target percentile, the reliability of the data would be viewed as highly questionable. Where truly “like” positions are being compared, there is a typically limited differential in the data.

Again, the task here is to neither elevate nor lower the comparator, but to identify a set of parameters that is reasonable, and then the data will be what it will be. Principles and philosophy should ground the data modelling rather than a data model that seeks to support a conclusion.

5.0 Geography

Mr. Pannu provides data for Canada's largest cities (top 10 CMAs) which provide the largest number /percentage of appointments to the judiciary, and on that basis alone, this filter becomes important for determining compensation levels.

Where Canada on the whole is used as the baseline (= 0), the calculations result in substantial differences where the 75th percentile varies significantly from city to city. 675 private-practice lawyers were appointed to the bench for the period January 1, 1997 - March 31, 2015, and 60% of those appointments came from the top 10 CMAs.

Table 8 Summary of CMA-specific Income for Self-Employed Lawyers

CMA	75th Percentile Income 2014	Compared with Canada
Canada	\$261,363	100%
1 – Quebec City	\$212,890	81%
2 – Ottawa / Gatineau	\$240,315	92%
3 – Montreal	\$261,955	100%
4 – Vancouver	\$266,470	102%
5 – Edmonton	\$301,140	115%
6 – Calgary	\$333,815	128%
7 – Hamilton and London	\$372,595	143%
9 – Toronto	\$388,020	148%
All CMAs	\$306,810	117%
All other regions	\$160,363	61%

Based on an approximate 60 / 40 split of appointments, Mr. Pannu calculates a weighted average at the 75th percentile of \$249,317. While offering a weighted model of 60/40 is one method, my view is that most compensation professionals would reject such a blunt model. This model does not reflect a common sense approach to determining compensation levels. The particularity in this context is that compensation for judges does not vary based on geography.

This is, of course, a common practice in many sectors of the Canadian labour market. However, absent this lever, the challenge becomes determining a model that, again, neither runs to the top end of the scale nor the bottom end of the scale.

Under Mr. Pannu's model, his figure of \$237,015 would be below the majority of CMAs, and significantly above all other geographies. My own view is that based on the data available through salary exclusion and age cohort modelling, the Commission has adequate input for a determination of compensation, particularly with the additional data provided by the second major comparator, DM-3. Geography should serve as a guide, but given the desire to have a flat Canadian judicial salary, this data should be of less import. That is not to say it should not be considered given the predominance of where the judiciary is located. What is clear is that for each of the available filters, when applied in a reasonable manner, they lead to a common conclusion that the current judicial salary of \$308,600 is below a competitive market. The consistency of these filter-based findings highlight the overall reliability of the use of filters.

6.0 Judicial Annuity Model – Calculating Total Compensation

While in principle I am in full agreement with Mr. Pannu that a fair comparison between self-employed lawyers and the judiciary requires consideration of total compensation, I cannot agree with either his math or the related conclusion. In calculating total compensation for the judiciary, his method provides for the highest possible number, while in calculating total income for self-employed lawyers, he does not give adequate consideration to favourable tax vehicles and he relies on a data model that results in continuing to lower the outcome. The gap that is created between the two is neither accurate nor defensible as the comparison being made does not start from a common baseline nor use common parameters.

The Pannu report also makes reference to other compensation vehicles such as the value of benefit packages. While the value of health and dental benefits is sometimes included in total compensation, in my experience, health and dental plans typically are not significant drivers of a person's decision to accept or decline an employment opportunity. Moreover, in my experience in working with private sector partnership business models, one cannot assume the absence of any such benefits.

Finally, in terms of creating a baseline that reflects total compensation, there are other vehicles available that have an impact on net income within the private sector, such as income splitting and professional corporations. Such vehicles have not been referenced or costed, again resulting in a less than fulsome profile of net income.

As such, Mr. Pannu's conclusion of the judicial salary of \$410,592 as the comparator with net income of self-employed lawyers is not a comparison with data that have been calculated on the same basis. Mr. Pannu's report makes clear that the application of any one filter results in a figure substantially different than either \$188,138 (all data, 65th) or \$261,363 (all data, 75th percentile). The next step in calculating the appropriate comparator number would be to ensure that all the filters are working in tandem. In compensation benchmarking, the determination of an appropriate comparator weaves all data together. Given that Mr. Pannu has reported his data as stand-alone findings, it is not possible to determine what that final data point, or data range, should be.

Lastly, regarding the option to elect supernumerary status, Mr. Pannu has not provided any particular model for consideration of this. Knowing little about the particular use of this, I would caution against any overly simplistic costing (half time work for full time pay).

Given that a fully retired member of the judiciary receives 66% of final earnings as an annuity, the ability to acquire 50% work contribution for a premium of 33%, while generous, is not unreasonable and serves both parties well. The monetary benefit to the Government is significant: the Government obtains an additional 50% of a judge's services at an additional cost of 33%, compared with full retirement.

In the government's submission to the Commission, the availability of this model is described as an important incentive with clear economic benefit and is part of the total value proposition. The caution I would offer is a consideration of the totality of arrangement, and what corollary arrangements occur in the private sector. It is my understanding that retired judges have certain restrictions in their post-retirement professional activities. The supernumerary model offers them an opportunity to continue service to the public without compromise. Perhaps the better way to understand the supernumerary model is that it constitutes an incentive as well as a vehicle to mitigate the real restrictions that exist for judges post-retirement.

In contrast, seasoned and well-respected self-employed lawyers, often required to retire much earlier than judges, have no restrictions on what they may do and how they may continue to earn income – recognizing that they may have some residual obligations to their previous partners and the firm more broadly. The challenge then continues to be that simple comparisons between the judiciary and self-employed lawyers cannot be made. The broader context and practices of each employment or income model are quite different. While total compensation – both monetary and non-monetary must be considered, it must be done more holistically rather than as a series of single observations.

7.0 Conclusions

Mr. Pannu's report consistently provides data and a related analysis that finds, for self-employed lawyers, the lower end of compensation levels through his math, most notably his use of each of target lower percentile, inclusion of low levels of income and the use of weightings for both age and geography. Moreover, he does not provide a total compensation data point for self-employed lawyer incomes. Conversely, when offering an analysis for the determination of total compensation for judicial salary, the method selected provides for the highest possible outcome. The combination of these two approaches serves to artificially create and then widen the gap between self-employed income and judicial salary levels, with the latter being higher than the former even though under a different model it would be the opposite.

Mr. Pannu's analysis and related conclusions lack important context so critical in any compensation analysis, but particularly true in consideration of such a highly distinctive segment of the Canadian labour market. The determination of the level of compensation appropriate for the judiciary is not a simple supply and demand equation. As the principles enunciated in the *Judges Act* make clear, the setting of judicial compensation is part of the framework that supports judicial independence.

Appendix A - Curriculum Vitae, Sandra Haydon

Profile

Sandra Haydon brings over 20 years of experience in developing compensation strategies including determining governing compensation philosophy, assessing market competitiveness and determining levels of pay for both base salary and incentive pay programs. She works with clients in both the public and private sectors.

In recent years, Ms. Haydon has undertaken compensation research related to lawyers in both the public and private sectors. In working with a number of Ontario's largest crown corporations as well many municipal governments, the challenge of attracting and retaining lawyers has been a key organizational issue.

Ms. Haydon has worked with Boards of Directors on executive compensation with a specific focus on determining the governing compensation philosophy including the definition of the target competitive market – geography, sector/industry and percentile.

She has also served as compensation subject matter expert in both arbitrations and litigation.

Ms. Haydon has served as a faculty member for the Ontario Hospital Association's Centre for Governance Excellence for the past seven years.

Ms. Haydon was with Deloitte Consulting until 2013 where she served in a number of leadership roles including Human Capital Public Sector Lead (Toronto) and as the National Practice Leader for Compensation Services. Ms. Haydon was with Deloitte for 17 years. She established Sandra Haydon & Associates Inc. in January 2014.

Education and Professional Training

Doctoral studies, Social and Political Theory
York University (1997)

Doctoral studies, Literature
Queen's University (1995)

Master of Arts, Literature
Carleton University (1993)

Bachelor of Arts, Sociology and Literature
Carleton University (1992)

Advanced Program in Human Resources
Rotman School of Management
University of Toronto (2005)

Certificate in Board Governance
Schulich School of Business
York University (2007)

A selection of Ms. Haydon's client work follows.

Select Project Profiles

Arnet Panel on Executive Compensation in Ontario's Crown Sector

The Arnet Panel was commissioned by the Province of Ontario to review executive pay within Ontario's crown corporation energy sector. Given the national and international context of the energy sector, market pricing was undertaken provincially, nationally, and globally. Ms. Haydon worked with the Panel to provide subject matter expertise on public sector executive compensation practices. Input from the review was used by Mr. Arnett to provide advice and guidance to the Ontario Minister of Finance and the Minister of Energy.

Province of Ontario, 10 Year Compensation Strategy

Ms. Haydon led a project on behalf of the Secretary of Cabinet to undertake a comprehensive review of the Province's compensation strategy for its 60,000 employees. The final report provided recommendations focused on balancing fiscal responsibility (constraint) and public scrutiny with a model that would support a performance based culture. This required harmonizing different sector pressures, varying geographies, as well as working across multi union and non-union workforces.

Manitoba Crown Council

Ms. Haydon was the project director for a comprehensive review of the Province's crown corporation executive compensation strategy leading to a series of recommendations for a tiered approach, balancing the unique operating models of each of the crowns with the ability to attract and retain sector-specific leadership. As with all public sector organizations, designing a model that ensured policy transparency was paramount.

Crown Investment Corporation of Saskatchewan (CIC)

Ms. Haydon has worked on a number of projects for CIC, most notably the design of an executive compensation framework for each of the Province's crown corporations. CIC required an outcome that would balance the unique operating environments of each crown organization with the need to have a unified approach. Working with CIC, a tiered model was designed that ensured a balance of sector specific drivers (telecom, energy, financial services) while meeting the need for public transparency.

Canada Pension Plan Investment Board

Ms. Haydon led a review of CPPIB's compensation strategy, models and levels of pay for the organization's 5 year Special Exam under the direction of the Office of the Auditor General. As with many revenue generating public sector organizations, a key challenge was competitive pay, particularly in light of the organization's location in Canada's financial centre, Toronto.

Additional Clients

Additional clients for whom Ms. Haydon has provided compensation-related services include:

- Blackberry
- Conference Board of Canada
- Starwood Hotels
- Grand and Toy
- Johnson & Johnson
- Canadian Olympic Corporation
- Toshiba
- NAV CANADA
- Office of the Children's Lawyer of Ontario
- Ontario Lottery and Gaming Corporation
- Government of Newfoundland and Lbrd
- City of Toronto
- Greater Toronto Airports Authority
- Halifax International Airport Authority
- Export Development Corporation
- Cancer Care Ontario



Actuarial Solutions
making it simple®

March 29, 2016

Mr. Azim Hussain
Partner
Norton Rose Fulbright Canada LLP
Suite 2500, 1 Place Ville Marie
Montréal, QC H3B 1R1

VIA EMAIL

RE: *Report on the Value of the Judicial Annuity*

Dear Mr. Hussain:

Please find enclosed my report on the above captioned matter.

Yours truly,
Actuarial Solutions Inc.

Dean Newell, FCIA
Vice President

cc: Jamie Macdonald, Norton Rose Fulbright Canada LLP

Actuarial Solutions Inc.
19 Amy Croft Dr. Suite 203
Lakeshore, Ontario N9K 1C7
P: 519.979.4600
TF: 866.323.7200
F: 519.979.4699

Greater Toronto Area
466 Speers Rd. 3rd Floor
Oakville, Ontario L6K 3W9
P: 905.257.2038
TF: 877.257.2038



**REPORT ON THE
VALUE OF THE JUDICIAL ANNUITY**

PREPARED FOR NORTON ROSE FULBRIGHT CANADA LLP

**FOR THEIR REPLY SUBMISSION TO THE 2015
JUDICIAL COMPENSATION AND BENEFITS COMMISSION**

MARCH 29, 2016



Actuarial Solutions Inc.
19 Amy Croft Drive, Suite 203 | Lakeshore, Ontario N9K 1C7 | P: 519.979.4600 | TF: 866.323.7200 | F: 519.979.4699



TABLE OF CONTENTS

SECTION 1 - INTRODUCTION	1
1.1 INTRODUCTION	1
1.2 BACKGROUND	2
1.3 SCOPE	2
SECTION 2 - EXECUTIVE SUMMARY.....	4
SECTION 3 - CALCULATION OF JUDICIAL ANNUITY VALUE...5	
3.1 COMMENTARY	5
3.2 METHODOLOGY	5
3.3 ASSUMPTIONS	7
3.4 CALCULATION RESULTS	8
3.5 RECONCILIATION OF RESULTS	9
SECTION 4 - COMPARISON TO OTHER CALCULATIONS.....	12
4.1 2016 PANNU REPORT	12
4.2 PERCEIVED VALUE AND OTHER APPROACHES	15
SECTION 5 – OPINION.....	16
APPENDIX A - PLAN PROVISIONS	17
APPENDIX B - ASSUMPTIONS	19
APPENDIX C - APPOINTMENT AGE DATA	21
APPENDIX D - DOCUMENTS	22
APPENDIX E - CURRICULUM VITAE	23



SECTION 1 - INTRODUCTION

1.1 INTRODUCTION

- [1] I have been retained by the firm of Norton Rose Fulbright Canada LLP, themselves acting on behalf of the Canadian Superior Courts Judges Association and the Canadian Judicial Council, to calculate the value of the annuity for federally appointed judges, and to provide commentary on the parts of the “Report On The Earnings Of Self-Employed Lawyers For The Department Of Justice Canada” (the “February 25, 2016 Pannu Report”) which relate to the calculation of the value of the judicial annuity.
- [2] The February 25, 2016 Pannu Report was prepared by Mr. Haripaul Pannu and was referenced in the submission of the Government of Canada (the “2015 Government Submission”) to the 2015 Judicial Compensation and Benefits Commission (the “Commission”).
- [3] I understand that this report may form part of the Canadian Superior Courts Judges Association and the Canadian Judicial Council response submission to the 2015 Judicial Compensation and Benefits Commission.
- [4] Appendix E provides my CV. I have been a Fellow of the Canadian Institute of Actuaries since 2005. Since that date, I have continuously practiced as an actuary, primarily in the area of pension plans, providing consulting services on the design, administration, and financing of such plans, and providing advice on the requirements for compliance with applicable legislation and the administrative rules of the pension regulators. Since 2005 I have been directly involved with the preparation of pension plan actuarial valuations, usually as the signing actuary.
- [5] As will be evident from my CV, I have no legal training. However, in the course of my work I am required to read and understand legal documents relating to pension plans. Nevertheless, when I refer to such documents, it is not with any intent to offer any legal opinion as to their meaning, as I defer to legal counsel for such interpretations.
- [6] A summary of my understanding of the provisions of the Judicial Annuity program is included in Appendix A. My understanding of the Judicial Annuity program provisions are based on my interpretation of the plan provisions outlined in the actuarial report on the Pension Plan for Federally Appointed Judges as at March 31, 2013 prepared by the Office of the Chief Actuary of the Office of the Superintendent of Financial Institutions (the “March 31, 2013 OSFI Report”), as well as the relevant provisions of the *Judges Act*.
- [7] Appendix D provides a list of the documents that were made available to me for the preparation of this report. While I have relied upon counsel to provide me with the necessary background information in order to prepare my report, the opinions contained in this report are entirely my own. In my opinion, I have been provided with sufficient information to complete this assignment based upon its scope.



1.2 BACKGROUND

- [8] When comparing the total compensation of federally appointed judges with the total compensation of lawyers in private practice, it is appropriate to consider the value of the benefits received by the judges from the Judicial Annuity program.
- [9] I understand that membership in the program is compulsory for all federally appointed judges. The benefits provided under the program for judges who meet specific eligibility criteria include retirement and disability annuity benefits, and pre-retirement death benefits.
- [10] Furthermore, I understand that the program is financed by contributions by the judges, who are required to contribute 1% of salary to the Supplementary Retirement Benefit Account, and if not eligible for an unreduced annuity, 6% of salary to the Consolidated Revenue Fund. The government deemed contributions are the excess of the plan benefits paid from the Consolidated Revenue Fund over the contributions by the judges thereto. For greater clarity, the program is financed through the Consolidated Revenue Fund primarily on a pay-as-you-go basis rather than being financed on a pre-funded basis as are the other major pension plans sponsored by the Federal Government.

1.3 SCOPE

Calculation of Judicial Annuity Value

- [11] In this report, I provide a calculation of the “value” of the judicial annuity. In particular, the calculation that I perform expresses the proportion of the Judicial Annuity program that is financed by the Government of Canada as a level percentage of the judge’s annual income during their appointment to the bench. This calculation has been performed using:
- my understanding of the applicable Judicial Annuity program provisions (see Appendix A for a detailed summary);
 - the methodology described in Section 3.2;
 - the long-term “best estimate” assumptions described in Section 3.3 and listed in Appendix B; and
 - the judicial appointment age data from January 1, 1997 to March 30, 2015 listed in Appendix C.



Comparison to Other Calculations

- [12] This report also outlines the results of my calculations used to reproduce the results of the judicial annuity calculations prepared by Mr. Haripaul Pannu in his report prepared for the Department of Justice Canada (the “February 25, 2016 Pannu Report”). A comparison of my matching results and a brief commentary on the differences are outlined in the section below titled Comparison to Other Calculations.



SECTION 2 - EXECUTIVE SUMMARY

- [13] In Section 3 of this report, I provide a calculation of the “value” of the judicial annuity. In particular, the calculation that I perform expresses the proportion of the Judicial Annuity program that is financed by the Government of Canada as a level percentage of the judge’s annual income during their appointment to the bench. This calculation has been performed using:
- my understanding of the applicable Judicial Annuity program provisions (see Appendix A for a detailed summary);
 - the methodology described in Section 3.2;
 - the long-term “best estimate” assumptions described in Section 3.3 and listed in Appendix B; and
 - the judicial appointment age data from January 1, 1997 to March 30, 2015 listed in Appendix C.
- [14] Using the methodology described in Section 3.2, the provisions of the Judicial Annuity outlined in Appendix A, the assumptions described in Section 3.3 and listed in Appendices B, and the judicial appointment age data from January 1, 1997 to March 30, 2015 listed in Appendix C, **I have calculated the value of the Judicial Annuity program to be 30.6% as expressed as a level percentage of a judge’s annual income during their appointment to the bench.**
- [15] In my opinion, the methods and assumptions used to determine the value of the Judicial Annuity program provides an appropriate measure of the value of the benefits which are financed by the Government of Canada in providing the Judicial Annuity program. Also, in my opinion, the data on which the calculation is based are sufficient and reliable for the purposes of this calculation.
- [16] It should be understood that there are various methods that could be used to value the benefits received by the judges from the Judicial Annuity program, and that any calculation will be sensitive to the underlying methodology and assumptions. Furthermore, any calculation of the value of the Judicial Annuity program may differ greatly from a judge’s perceived value of the benefit.
- [17] Section 4 of this report provides a comparison of the judicial annuity calculations prepared by Mr. Haripaul Pannu in his report dated February 25, 2016 prepared for the Department of Justice Canada, and my attempt to reproduce his calculations. Mr. Pannu has calculated the total Judicial Annuity value to be 36.5% (32.0% for the retirement value and 4.5% for the disability value), whereas I obtain a result of 32.4% (28.5% for the retirement value and 3.9% for the disability value) using, what I believe to be, the same methods, assumptions, and data. Section 4 of this report provides a commentary on where the differences in our calculations may lie, and provides a commentary on the disability benefit.



SECTION 3 - CALCULATION OF JUDICIAL ANNUITY VALUE

3.1 COMMENTARY

- [18] My calculation of the value of the Judicial Annuity program that is financed by the Government of Canada, expressed as a level percentage of the judge's annual income during their appointment to the bench, is performed using the assumptions outlined in Appendix B, my understanding of the provisions of the Judicial Annuity outlined in Appendix A, and the methodology described below.
- [19] It is my understanding that the value of the Judicial Annuity program may be taken into account when the Commission makes recommendations on judges' compensation.
- [20] The methodology described below does not consider the impact of the Supernumerary Status of judges. My understanding is that judges may elect to become a supernumerary judge if: a) they are eligible to retire with a full annuity (i.e. when they have served 15 years and their age plus service is at least 80), or b) they have served 10 years and attained age 70. Supernumerary judges receive full salary, but are not expected to work full hours (and typically are expected to work 50% of a normal workload). For clarity, the methodology used in this report expresses the value of the benefits provided by the Government of Canada under the Judicial Annuity program as a level percentage of a judge's annual income during their appointment to the bench, regardless of their Supernumerary Status (i.e. regardless of whether they work full-time or part-time).

3.2 METHODOLOGY

- [21] While no actual membership data is used in my calculations, I note that the methodology described below considers the actual appointment ages for judges during the period January 1, 1997 to March 31, 2015 (see Appendix C for a summary of this data). Moreover, the methodology described below does not require actual salary data¹.
- [22] I have performed my calculations using a method which expresses the value of the benefits provided by the Government of Canada under the Judicial Annuity program as a level percentage of a judge's annual income during their appointment to the bench. Such a method represents the annual cost of providing the benefits under the Judicial Annuity program during the judge's appointment to the bench to annual time periods.

¹ Specifically, for the purposes of calculating the "Benefit Values" at the various appointment ages, the actuarial present value of benefits, contributions, and salaries are all determined in reference to the salary at the date of appointment.



[23] Specifically, I have calculated a “Benefit Value” for appointment ages 40 through 65². The “Benefit Value” for each appointment age has been determined by calculating the total actuarial present value of the benefits provided under the Judicial Annuity program, then reducing this value by the total actuarial present value of benefits which are funded by the judge’s contributions, and then dividing the resulting value by the actuarial present value of the judge’s salary during their appointment to the bench. For greater clarity, the actuarial present value calculations noted above are calculated as at the judge’s date of appointment. The “Benefit Value” for appointment ages 40 through 65 expressed as a formula is as follows:

$$\text{Benefit Value}_{\text{Age } x} = \{ \text{PVFBen}_{\text{Age } x} - \text{PVFCont}_{\text{Age } x} \} / \text{PVFSal}_{\text{Age } x}; \text{ where}$$

$\text{PVFBen}_{\text{Age } x}$ is the Actuarial Present Value, calculated at the appointment date, of the benefits provided under the Judicial Annuity program for a judge appointed at age x;

$\text{PVFCont}_{\text{Age } x}$ is the Actuarial Present Value, calculated at the appointment date, of the judge’s contributions for a judge appointed at age x; and

$\text{PVFSal}_{\text{Age } x}$ is the Actuarial Present Value, calculated at the appointment date, of the judge’s salary for a judge appointed at age x.

[24] It should be understood that “Benefit Values” above vary significantly by appointment age. As a result, I have calculated a “Weighted Average Benefit Value” to determine a single value applicable to all judges.

[25] In determining the “Weighted Average Benefit Value”, I have used the following formula:

$$\begin{aligned} \text{Weighted Average Benefit Value} = & \{ 5.0\% \times \text{Average Benefit Value}_{\text{Age } 40 \text{ to } 43} \} + \\ & \{ 20.6\% \times \text{Average Benefit Value}_{\text{Age } 44 \text{ to } 47} \} + \\ & \{ 23.2\% \times \text{Average Benefit Value}_{\text{Age } 48 \text{ to } 51} \} + \\ & \{ 24.4\% \times \text{Average Benefit Value}_{\text{Age } 52 \text{ to } 55} \} + \\ & \{ 17.4\% \times \text{Average Benefit Value}_{\text{Age } 56 \text{ to } 59} \} + \\ & \{ 7.2\% \times \text{Average Benefit Value}_{\text{Age } 60 \text{ to } 63} \} + \\ & \{ 2.2\% \times \text{Average Benefit Value}_{\text{Age } 64 \text{ to } 67} \}; \text{ where} \end{aligned}$$

$\text{Average Benefit Value}_{\text{Age } y \text{ to } z}$ is the arithmetic average of the “Benefit Value_{Age x}” from ages y to age z.

[26] As previously noted, the weighting rates applicable to the “Average Benefit Values” in the formula above are representative of the ages of appointment for federal judges for the period January 1, 1997 to March 30, 2015.

[27] Given the nature of the calculation above, a specific calculation date is not required.

² It is noted that approximately 99% of judges are appointed between these ages.



- [28] As noted elsewhere in this report, this methodology is consistent with the methodology used by Mr. Brian FitzGerald to calculate the value of the Judicial Annuity program for the 2011 Commission (as discussed in Section 3.5 below), and it has certain similarities with the methodology used by Mr. Haripaul Pannu to calculate the value of the Judicial Annuity program in the 2015 Government Submission (as discussed in Section 4.1 below)³.
- [29] In my opinion, this methodology is appropriate for the purposes of expressing the value of the benefits provided by the Government of Canada under the Judicial Annuity program as a level percentage of a judge's annual income during their appointment to the bench.

3.3 ASSUMPTIONS

- [30] Appendix B provides a complete list of the assumptions used in the calculation. For your reference, the key economic assumptions are an interest rate of 5.50% per annum, a salary increase rate of 3.00% per annum, and an inflation rate of 2.00% per annum.
- [31] For clarity, the assumptions selected for this calculation are my "best estimate" assumptions. In setting the "best estimate" assumptions, I select assumptions that, in my opinion, are the most appropriate long-term assumption for each separate assumption.
- [32] In developing my "best estimate" assumptions, the interest rate assumption was developed in a manner consistent with that which would be used to measure the costs of a pension plan in a going-concern funding valuation⁴ – that is, the interest rate assumption is established in reference to the expected investment return on a balanced portfolio of assets held in a pension plan. Such an approach to establish the "best estimate" interest rate assumption is, in my opinion, appropriate for the purposes of this calculation⁵.
- [33] For clarity, the use of "best estimate" assumptions produces only one set of calculation results. It should be understood that "best estimate" assumptions, by their very nature, are open to judgement. Furthermore, accepted actuarial practice in Canada does not prescribe a specific set of "best estimate" assumptions; and there is no upper or lower bound on the range for each assumption codified. As a result, it should be understood that another set of assumptions – which would lead to a different calculation result – could also be consider appropriate and within accepted actuarial practice in Canada.
- [34] In my opinion, the use of "best estimate" assumptions outlined in Appendix B are appropriate for the purposes of expressing the value of the benefits provided by the Government of Canada under the Judicial Annuity program as a level percentage of a judge's annual income during their appointment to the bench.

³ It is noted that Mr. Pannu's calculations in the 2015 Government Submission use a different set of assumptions, including a disability assumption, and a different set of percentage appointment weightings.

⁴ But without including a margin for adverse deviations as is usually required for funding valuations for registered pension plan, as such a margin would lead to a conservative bias.

⁵ As it would reasonably reflect the judges' perceived value of the benefit provided by the Judicial Annuity program.



3.4 CALCULATION RESULTS

- [35] Using the methodology outlined above, the provisions of the Judicial Annuity outlined in Appendix A, the assumptions described above and listed in Appendices B, and the judicial appointment age data from January 1, 1997 to March 30, 2015 listed in Appendix C, **I have calculated the “Weighted Average Benefit Value” to be 30.6%.**
- [36] The methodology and assumptions used to perform this calculation are appropriate for the purposes of expressing the value of the benefits provided by the Government of Canada under the Judicial Annuity program as a level percentage of a judge’s annual income during their appointment to the bench. Likewise, the data on which the calculation is based are sufficient and reliable for the purposes of this calculation. The methodology, assumptions, and data used to perform this calculation may not be suitable for any other purpose – including the purpose of prefunding the benefits under the Judicial Annuity program.

Sample Calculations

- [37] Below I have provided some details of the calculations noted above at sample ages. Specifically, I provided the details of “Benefit Value_{Age 40}” and “Benefit Value_{Age 65}” calculations.
- [38] The results of the calculations for “Benefit Value_{Age 40}” are as follows⁶:

$$\text{Benefit Value}_{\text{Age } 40} = \{ \text{PVFBen}_{\text{Age } 40} - \text{PVFCont}_{\text{Age } 40} \} / \text{PVFSal}_{\text{Age } 40}$$

$$\text{Benefit Value}_{\text{Age } 40} = \{ \$1,605,400 - \$361,300 \} / \$6,503,600$$

$$\text{Benefit Value}_{\text{Age } 40} = 19.1\%$$

- [39] The results of the calculations for “Benefit Value_{Age 65}” are as follows¹:

$$\text{Benefit Value}_{\text{Age } 65} = \{ \text{PVFBen}_{\text{Age } 65} - \text{PVFCont}_{\text{Age } 65} \} / \text{PVFSal}_{\text{Age } 65}$$

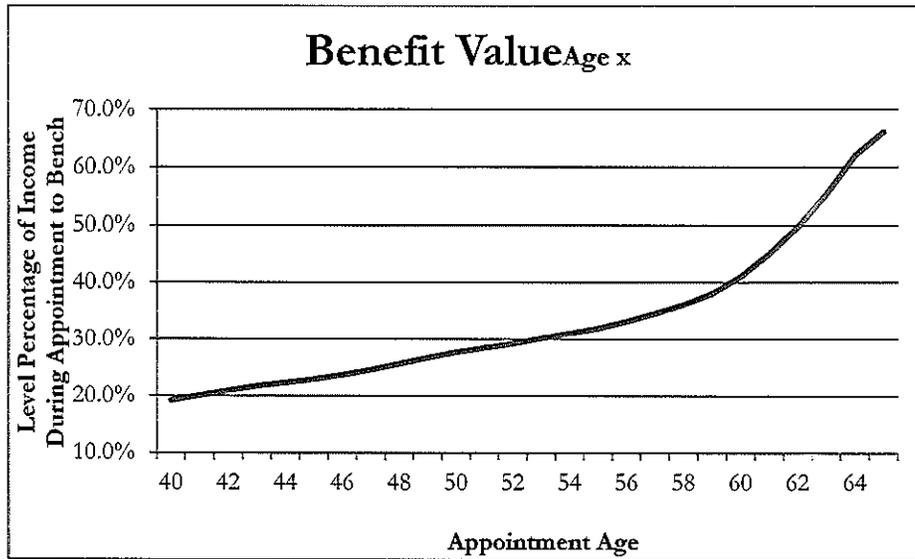
$$\text{Benefit Value}_{\text{Age } 65} = \{ \$1,942,600 - \$186,200 \} / \$2,659,900$$

$$\text{Benefit Value}_{\text{Age } 65} = 66.0\%$$

⁶ A salary rate of \$317,858 (or \$308,600 increased by 3.0%) was used as the basis to calculate the actuarial present value of benefits, contributions, and salaries in these examples. While a different salary rate would alter the actuarial present value components in the formula, it would not change the net result of the “Benefit Value_{Age x}” calculation.



[40] The chart below illustrates the “Benefit Value_{Age x}” from ages 40 through 65.



3.5 RECONCILIATION OF RESULTS

[41] In January 2012, I assisted Brian FitzGerald of Capital G Consulting Inc. in preparing a similar report regarding the value of the benefits received by the judges from the Judicial Annuity program. Our calculations at that time were performed using similar methods, assumptions which were selected by Mr. FitzGerald, our understanding of the applicable provisions of the Judicial Annuity program at that time, and the actual appointment ages for judges during the period January 1, 1997 to March 31, 2011.

[42] The results of our calculations in January 2012 were a “Weighted Average Benefit Value” of 23.8%. Below I have prepared a reconciliation from the 2012 calculation of 23.8% to my calculation of 30.6% provided in this report.

2012 Calculation of “Weighted Average Benefit Value”	23.8%
Change due to age rounding approach	0.6%
Change due to updated appointment age data	0.4%
Change due to updated mortality table	4.1%
Change due to updated interest rate	1.7%
2016 Calculation of “Weighted Average Benefit Value”	30.6%



Commentary

[43] With respect to the change due to the rounding approach:

- Our previous calculation prepared in 2012 assumed that the judicial appointments at any given age were made at a judge's exact age. When preparing the calculation in this report, I have updated this rounding approach to reflect the expectation that judicial appointments at a given age occur uniformly over the year as opposed to at the judge's exact age. This change effectively results to increase the average age at appointment by 0.5 years. This was the approach of Mr. Sauv e, the Commission's expert.
- By applying this adjustment, my "Weighted Average Benefit Value" has increased by 0.6%.

[44] With respect to the change due to the updated appointment age data:

- Our previous calculation prepared in 2012 was prepared using the actual appointment ages for judges during the period January 1, 1997 to March 31, 2011. I have updated my calculations to consider the actual appointment ages for judges during the period April 1, 2011 to March 30, 2015. For greater clarity, I aggregated this appointment data from April 1, 2011 to March 30, 2015 with the previous data so that I am now considering the actual appointment ages for judges during the period January 1, 1997 to March 30, 2015.
- The impact of reflecting the additional appointment data is that the "Weighted Average Benefit Value" has increased by 0.4%. The main reason for this increase is that the average appointment age for judges appointed between April 1, 2011 and March 30, 2015 is slightly higher than the average appointment ages for judges appointed between January 1, 1997 and March 31, 2011.

[45] With respect to the change due to the updated mortality table:

- Since the previous calculation was prepared in 2012, the Canadian Institute of Actuaries (the "CIA") issued a new report on Canadian Pensioners' Mortality, which introduced a new set of mortality tables and a mortality improvement scale. These mortality tables (named "CPM2014") and the CPM-B mortality improvement scale have become the most widely accepted mortality tables for use by pension actuaries in Canada. Specifically, these new mortality tables reflect what numerous studies have shown over the past few years – that mortality in Canada is improving at a faster pace than previously expected. As a result, I believe that these updated mortality tables are appropriate for the purposes of valuing the Judicial Annuity program.
- Specifically, I have updated my calculations to use the CPM2014 Public Sector mortality table with the CPM-B mortality improvement scale. For your reference, the mortality table used in the 2012 calculations was the UP1994 mortality table projected to 2020 using Scale AA mortality improvement⁷.

⁷ For clarity, in both the 2012 calculations and my updated calculations, unisex mortality rates were used whereby judges were assumed to be 67% male and their spouses were assumed to be 33% female.



- The impact of reflecting the updated mortality table is that the “Weighted Average Benefit Value” has increased by 4.1%.

[46] With respect to the change due to the updated interest rate:

- Our previous calculation prepared in 2012 was prepared using an interest rate of 5.75% per annum. It is noted that yields on government bonds are lower today than they were back in 2012. In turn, future expectations for pension fund returns are lower today than in 2012. For this reason, I believe that an appropriate “best estimate” long-term interest rate for a 2016 calculation would be 5.50% per annum.
- The impact of decreasing the interest rate from 5.75% per annum to 5.50% per annum is that the “Weighted Average Benefit Value” has increased by 1.7%.



SECTION 4 - COMPARISON TO OTHER CALCULATIONS

4.1 2016 PANNU REPORT

- [47] In addition to performing the calculations above, I have attempted to reproduce the results of the judicial annuity calculations prepared by Mr. Haripaul Pannu in his report prepared for the Department of Justice Canada (the “February 25, 2016 Pannu Report”) under the section entitled “Judicial Annuity Scheme”.
- [48] It is my understanding that Mr. Pannu has used a methodology that has certain similarities to the methodology used in my calculations (i.e. in determining a “Weighted Average Benefit Value”) - however his calculations use a different set of assumptions, and a slightly different set of percentage appointment weightings. I believe that the key difference in our calculations is rooted in the fact that Mr. Pannu has used a disability assumption and is valuing a disability benefit as part of the Judicial Annuity program, whereas my calculation does not include a disability assumption, and therefore is not directly valuing a disability benefit as part of Judicial Annuity program.
- [49] For clarity, I have attempted to reproduce the results calculated by Mr. Pannu using the methodology and the assumptions outlined in the February 25, 2016 Pannu Report. Please see Appendix B of for a summary of the assumptions used by Mr. Pannu.

Comparison of Results

- [50] The following table compares the calculations of the value of the judicial annuity prepared by Mr. Pannu in the “February 25, 2016 Pannu Report”, and my calculations whereby I attempt to reproduce his calculation results using the same methods and assumptions as outlined in his report. It is important to note that the figure of 28.5% that I arrive at for the retirement value in the table below cannot be compared to my own figure of 30.6% above, they are like apples and oranges. The reason for this is that the figure of 28.5% is part of a methodology that has a disability assumption, and therefore it cannot be dissociated from the total figure of 32.4%, also in the table below.

Comparison of Results			
	Mr. Pannu	ASI (Reproduce)	Difference
Weighted Average Retirement Value	32.0%	28.5%	+3.5%
Weighted Average Disability Value	4.5%	3.9%	+0.6%
Total Judicial Annuity Value	36.5%	32.4%	+4.1%



Commentary

- [51] It may be possible that Mr. Pannu may have incorrectly calculated the “percentage appointment” weightings used to determine the “Weighted Average Benefits Values”. Specifically, the weightings he has used are weighted slightly more heavily towards the older appointment ages than those of my 2016 weightings outlined in Section 3 above⁸.
- [52] For clarity, the ASI reproduced results above assume the correct 2016 “percentage appointment” weightings (as outlined in Section 3.2 above). However, if I were to reflect Mr. Pannu’s weightings, I would obtain a Weighted Average Retirement Value of 28.8% (the Weighted Average Disability Value would remain unchanged at 3.9%), which provides for a Total Judicial Annuity Value of 32.7% - thus reducing the difference to 3.8%.
- [53] With respect to the remaining unexplained difference of +3.8%, I have not been provided with an opportunity to discuss this difference with Mr. Pannu. However, I wish to note the following, which may help explain a portion of the difference:
- While the complete set of assumptions for the incidence of disability are not disclosed in the March 31, 2013 OSFI Report or the February 25, 2016 Pannu Report, I have been able to interpolated the incidence of disability rates using the sample ages provided in the March 31, 2013 OSFI Report.
 - It is not clear based on Mr. Pannu’s report what disability mortality assumption has been used to reflect the probability of death following disability. I note that his report refers to mortality rates which are multiplied by factors as outlined in the March 31, 2013 OSFI Report; however, the March 31, 2013 OSFI Report does not refer to any such factors, and instead references that the disability mortality rates are the same as those used for the pension plan for the Public Service of Canada applicable to plan year 2014. For clarity, my matching results outlined above assume the disability mortality rates outlined for plan year 2012 from the actuarial report on the pension plan for the Public Service of Canada as at March 31, 2011.
 - In 2012 I performed a similar comparison on the results from Mr. Pannu’s December 13, 2011 report. It is my recollection that, when discussing my differences with Mr. Pannu (and Mr. Sauvé) at that time, it was determined that Mr. Pannu’s calculation of the Weighted Average Retirement Value was overvalued since the members assumed to receive disability benefits were not properly offset in his calculation of the retirement benefits. It may be possible that Mr. Pannu made this same miscalculation in his 2016 calculations, and I estimate that his Weighted Average Retirement Value could be overstated by approximately 2.4%.

⁸ Appendix C in Mr. Pannu’s report outlines the appointment age data used to determine his results, which is the same data used in my calculations in Section 3.



Disability

- [54] It is worth noting that, in 2012, Mr. FitzGerald stated that the decision as to whether the disability benefit should be included in the value of the Judicial Annuity program is a matter to be agreed between the parties - and that it is not an actuarial decision. Mr. FitzGerald then noted that other benefits such as group insurance were also excluded from the value.
- [55] In 2012, Mr. Sauvé agreed with Mr. FitzGerald in that the valuation of the disability benefits should be made as part of a broader benchmarking exercise including group insurance benefits - and should therefore not be included in the valuation of the Judicial Annuity program.
- [56] I agree with the comments made by Mr. FitzGerald in 2012, and thus I would state that the decision as to whether the disability benefit should be included in the value of the Judicial Annuity program is a matter to be agreed between the parties - and that this is not an actuarial decision.
- [57] For your reference, when I attempt to reproduce Mr. Pannu's calculations without using his disability assumption, I obtain a Total Judicial Annuity Value of 30.9%⁹ (with the Weighted Average Retirement Value being 30.9%, and the Weighted Average Disability Value being nil). I wish to note that this value is greater than the Weighted Average Retirement Value of 28.5% calculated in the table in paragraph 50 above because, with the removal of the disability assumption, all judges are assumed to retire receive an annuity¹⁰.

Alternate Approach Prepared by Mr. Pannu

- [58] In the February 25, 2016 Pannu Report, Mr. Pannu outlined an alternate approach to valuing the judicial annuity¹¹. Specifically, Mr. Pannu determines the cost to a self-employed lawyer to fund a benefit similar to that of the Judicial Annuity program. Mr. Pannu notes that in order to do this, the lawyer would utilize a tax-sheltered RRSP and other non-tax-sheltered investment accounts.
- [59] The results of Mr. Pannu's calculations are an annual contribution rate by age which ranges from 25.9% for ages under 44 to 72.4% for ages between 56 and 60. I note that Mr. Pannu's report does not describe in any detail the methodology used to calculate these rates, nor is it clear to me what ages are represented in his analysis (i.e. age at appointment).

⁹ The difference of 0.3% between this calculation and my calculation of 30.6% in Section 3 is almost entirely due to the differences in the "percentage appointment" weightings, as the differences in the other assumptions have a minimal impact.

¹⁰ In contrast, in the calculation of the Weighted Average Retirement Value of 28.5% in paragraph 50, some judges are assumed to become disabled and receive a disability pension, and thus are not expected to retire and receive a retirement annuity.

¹¹ Which I believe to be similar to the earnings equivalent approach prepared by Mr. Sauvé in his report dated February 23, 2012.



[60] Unfortunately I am not able to reproduce Mr. Pannu's calculations given the information presented in his report. In order to do so, I would need to have a better understanding of the methodology he used, and I would likely need to have a discussion with Mr. Pannu to understand how he performed his calculations.

4.2 PERCEIVED VALUE AND OTHER APPROACHES

- [61] It should be understood that there are various methods that could be used to value the benefits received by the judges from the Judicial Annuity program, and that any calculation will be sensitive to the underlying methodology and assumptions.
- [62] For clarity, any such calculation of the value of the Judicial Annuity program may differ greatly from a judge's perceived value of the benefit. As a result, an individual judge may not perceive the value of the Judicial Annuity program to be the same as the result that I have calculated in Section 3 above, or any other alternative calculation approach.
- [63] It should be understood that, in addition to the wide range of "Benefit Value" that is attributable to a judge's age at appointment¹², there is a great deal of uncertainty in the ultimate benefit an individual judge (and his or her beneficiaries) may derive from the Judicial Annuity program. This uncertainty exists: in part due to the eligibility criteria attached to the benefits in the Judicial Annuity program, and in part due to the defined benefit nature of the Judicial Annuity program. Specifically, the actual retirement income (or termination/pre-retirement death benefit) a judge receives from the Judicial Annuity program may be significantly different than what they expected to receive at their date of appointment, or what they currently expect to receive as an active judge¹³.
- [64] In addition, it is worth noting that the Judicial Annuity benefit is not transferable, and thus cannot be converted into cash (i.e. the Judicial Annuity is illiquid). This fact may also weigh into a judge's perceived value of the Judicial Annuity program.
- [65] Irrespective of the comments noted in this section, it is my opinion that the methods and assumptions used to determine the value of the Judicial Annuity program outlined in Section 3 provides an appropriate measure of the value of the benefits which are financed by the Government of Canada in providing the Judicial Annuity program.

¹² Which range from 19.1% of payroll for an appointment at age 40, and 66.0% of payroll for an appointment at age 65.

¹³ The actual income a judges receives from the Judicial Annuity program depends on a number of factors including their life expectancy, their marital status, their age of retirement, the level of inflation, and retention of office.



SECTION 5 – OPINION

- [66] Section 4000 of the Standards of Practice of the Canadian Institute of Actuaries applies to actuarial evidence work. Relevant sections of this Standards include Section 4100 – Scope, Section 4200 – General, 4300 – Actuarial Evidence Calculations, Other than Capitalized Value of Pension Plan Benefits for a Marriage Breakdown and Criminal Rate of Interest, and Section 4700 – Reporting. This report has been prepared in accordance with these Standards.
- [67] Section 1640 of the Standards of Practice of the Canadian Institute of Actuaries provides guidance on undertaking a review of another actuary’s work. This report has been prepared in accordance with these Standards.
- [68] In my opinion, the data on which the calculations are based are sufficient and reliable for the purposes of the calculations.
- [69] This report has been prepared, and my opinions given, in accordance with accepted actuarial practice in Canada.

Dean Newell

Dean Newell
Fellow, Canadian Institute of Actuaries

March 29, 2016

Date



APPENDIX A - PLAN PROVISIONS

Summary of Plan Provisions Judicial Annuity Program

Membership	Compulsory for all judges appointed to federal or provincial courts by the Government of Canada.
Contributions – Judges	Judges appointed after February 16, 1975: 1% of salary to the Supplementary Retirement Benefits Account, and if not eligible for a full annuity, 6% of salary to the Consolidated Revenue Fund.
Contributions – Government	The government deemed contributions are the excess of the plan benefits paid from the Consolidated Revenue Fund over the contributions by judges thereto. The Government also contributes 1% of the salary which is credited to the Supplementary Retirement Benefits Account for judges appointed after February 16, 1975.
Eligibility to Normal Pensionable Retirement	Judicial office held until age 75; or age plus years of service of at least 80 (minimum 15 years of service); or in respect only of a judge of the Supreme Court of Canada, that service may be 10 years.
Normal Pensionable Retirement	2/3 of the judge's annual salary at the time of ceasing to hold office. The annuity is reduced on a pro-rata basis if the judicial office was held for less than 10 years.
Eligibility to Early Retirement	Age 55 with 10 years of Service.
Early Pensionable Retirement	Normal Pensionable Retirement benefit above, adjusted by the following ratio: a) The numerator is the number of years during which the judge has continued in judicial office, and b) The denominator is the total number of years during which the judge would have been required to be in judicial office in order to be eligible for an unreduced annuity. Such annuity is also reduced by 5% for every year that the annuity commences in advance of age 60.
Normal Form	Married judges: Joint life and 50% survivor annuity. Single judges: Lifetime annuity.
Cost of Living Adjustments	Annuities fully indexed to Consumer Price Index each year.
Termination prior to retirement	Refund of contributions with interest.
Disability benefits	Immediate unreduced annuity payable to the judge.
Pre-retirement Death Benefits	A lump-sum benefit equal to 1/6 of salary, plus ➤ If no surviving spouse exists, a refund of contributions; ➤ If a surviving spouse exists, 1/3 of the salary at death is payable as a lifetime annuity; and ➤ If dependent children exist, a annuity equal to 1/5 of the surviving spouses annuity is payable (and is adjusted if there are more than 4 children, or the child is orphaned).



Interpretation of Plan Provisions

With respect to the summary of the Plan provisions outlined in the March 31, 2013 OSFI Report, I note that it is not fully clear what early retirement annuity is provided to judges who retire without qualifying for an unreduced annuity. Specifically, this report indicates that the early retirement annuity is reduced by the fraction of which:

- a. The numerator is the number of years during which the judge has continued in judicial office, and
- b. The denominator is the number of years during which the judge would have been *required to continue* in judicial office in order to be eligible for an unreduced annuity (*emphasis added*).

It is my interpretation that this fraction should be determined as follows:

- a. The numerator is the number of years during which the judge has continued in judicial office, and
- b. The denominator is the total number of years during which the judge would have been required to be in judicial office in order to be eligible for an unreduced annuity.

I wish to note that this understanding does not have a material impact on the calculation results, as the retirement age assumption used for the calculations do not place significant weights to ages where an early retirement reduction is applicable.



APPENDIX B - ASSUMPTIONS

Valuation Assumptions			
	ASI Best Estimate Approach	ASI Market Value Approach	Pannu 2016 Calculation
Interest Rate	5.50% per annum	2.25% per annum	5.50% per annum
Salary Increase	3.00% per annum	2.25% per annum	3.00% per annum
Consumer Price Index Increase Rate	2.00% per annum	1.25% per annum	2.00% per annum
Post-retirement Indexing	100% of Consumer Price Index	100% of Consumer Price Index	100% of Consumer Price Index
Termination of Employment or Death Prior to Retirement	Nil	Nil	Nil
Incidence of Disability Prior to Retirement	Nil	Nil	Rates specified in the actuarial report on the Pension Plan for Federally Appointed Judges as at 31 March 2013 prepared by the Office of the Chief Actuary of the Office of the Superintendent of Financial Institutions (Unisex 67% male, 33% female)
Retirement Age	Retirement rates specified in the actuarial report on the Pension Plan for Federally Appointed Judges as at 31 March 2013 prepared by the Office of the Chief Actuary of the Office of the Superintendent of Financial Institutions	Retirement rates specified in the actuarial report on the Pension Plan for Federally Appointed Judges as at 31 March 2013 prepared by the Office of the Chief Actuary of the Office of the Superintendent of Financial Institutions	Retirement rates specified in the actuarial report on the Pension Plan for Federally Appointed Judges as at 31 March 2013 prepared by the Office of the Chief Actuary of the Office of the Superintendent of Financial Institutions
Mortality Rates – Post-Retirement	CPM Public Generational Mortality Table (unisex 67% male, 33% female)	CPM Public Generational Mortality Table (unisex 67% male, 33% female)	CPM Public Generational Mortality Table (unisex 67% male, 33% female)



Disability Mortality	N/A	N/A	Mortality after retirement multiplied by factors outlined in the actuarial report on the Pension Plan for Federally Appointed Judges as at 31 March 2013 by the Office of the Chief Actuary of the Office of the Superintendent of Financial Institutions
Marital Status at Retirement	Judges assumed to be 90% married at retirement; Male spouses assumed to be 3 years older than female spouse	Judges assumed to be 90% married at retirement; Male spouses assumed to be 3 years older than female spouse	Conjugal relationship, with spouse of opposite gender and same age as the member



APPENDIX C - APPOINTMENT AGE DATA

Judicial Appointment Ages from January 1, 1997 to March 30, 2015

Appointment Age	Number
40 and under	6
41	9
42	10
43	24
44	37
45	53
46	49
47	61
48	57
49	53
50	55
51	60
52	61
53	61
54	62
55	53
56	49
57	49
58	37
59	34
60	22
61	26
62	10
63	12
64	9
65	8
66	1
67	3
68	0
Total	971



APPENDIX D - DOCUMENTS

In performing my calculations, I have relied upon the following documents and information provided by Norton Rose Fulbright Canada LLP:

- H. Pannu, “Report on the Earnings of Self-Employed Lawyers for the Department of Justice Canada in Preparation for the 2015 Judicial Compensation and Benefits Commission” dated February 25, 2016.
- Table 1 – Appointees Age at Date of Appointment, April 1, 2011 to March 30, 2015

In addition, I have relied upon the following information, which is publicly available:

- The actuarial report on the Pension Plan for Federally Appointed Judges as at 31 March 2013 prepared by the Office of the Chief Actuary of the Office of the Superintendent of Financial Institutions.
- The actuarial report on the Pension Plan for Federally Appointed Judges as at 31 March 2010 prepared by the Office of the Chief Actuary of the Office of the Superintendent of Financial Institutions.
- Letter titled “Valuation of the Judicial Annuity” dated March February 14, 2012, from Mr. André Sauvé, F.S.A., F.C.I.A. to the 2011 Judicial Compensation and Benefits Commission.
- Letter titled “Earnings Equivalent to the Judicial Annuity” dated February 23, 2012, from Mr. André Sauvé, F.S.A., F.C.I.A. to the 2011 Judicial Compensation and Benefits Commission.
- H. Pannu, “Report on the Earnings of Self-Employed Lawyers for the Department of Justice Canada in Preparation for the 2011 Judicial Compensation and Benefits Commission” dated December 13, 2011.

I have also relied upon the following information, which was part our working papers from the work we performed in 2012:

- Letter titled “Valuation of Judicial Annuity” dated January 27, 2012, from Mr. Brian FitzGerald, F.I.A., F.C.I.A.
- Letter titled “Valuation of Judicial Annuity” dated February 19, 2012, from Mr. Brian FitzGerald, F.I.A., F.C.I.A.
- Letter titled “Judicial Annuity” dated March 5, 2012, from Mr. Brian FitzGerald, F.I.A., F.C.I.A.



APPENDIX E - CURRICULUM VITAE

Dean Newell

Dean Newell is a Vice President of Actuarial Solutions Inc. and manages ASI's actuarial practice. A Fellow of the Canadian Institute of Actuaries and the Society of Actuaries, Dean graduated from the University of Waterloo with an Honours Bachelor of Mathematics in 2002. Upon graduation, he joined the international accounting firm PricewaterhouseCoopers in its retirement practice in Toronto. Dean joined Actuarial Solutions Inc. in 2007.

Dean has a breadth of experience in performing valuations for pension and post-retirement benefit plans for funding, accounting, and plan wind-up purposes. In addition, he has experience consulting with plan sponsors on a range of matters affecting pension and post-retirement benefit plans including plan design, plan conversion, benefit improvement costing, legislative compliance, plan documentation, plan administration, and risk management.

Dean has accumulated significant expertise in the various global accounting standards affecting pension and post-retirement benefit plans (i.e. CPA Canada Handbook, US GAAP, IFRS). He has extensive experience in preparing the financial statement accounting disclosures (i.e. balance sheet, income statement, and note disclosures) for the pension and post-retirement benefit plans sponsored by his clients. In addition, Dean has substantial experience in assisting auditors perform their review of the pension and post-retirement benefit plan financial statement accounting disclosures of their clients.

Dean also has experience in assisting clients with mergers and acquisitions. Specifically, he has experience in preparing financial due-diligence analyses on target companies' benefit plans. Upon completion of the transaction, Dean has experience in working with the acquiring firm in implementing the new benefit strategy.

Education

- Graduated from the University of Waterloo in 2002 with a Bachelor of Mathematics
- Fellow of the Society of Actuaries (2005) – member in good standing
- Fellow of the Canadian Institute of Actuaries (2005) – member in good standing

Employment

- 2002-2007 – PricewaterhouseCoopers LLP, in roles of increasing responsibility and ultimately becoming Manager, Human Resource Services
- 2007-present – Actuarial Solutions Inc., in roles of increasing responsibility and ultimately becoming Vice President



Professional Activities

- Member, Canadian Institute of Actuaries, Committee on Pension Plan Financial Reporting – 2010 to 2014
- Member, Actuarial Standards Board, Designated Group Review of Practice-Specific Standards of Practice for Pension Plans – 2011 to 2012
- Member, Canadian Institute of Actuaries, Annual and General Meeting Organization Committee – 2007 to 2010
- Society of Actuaries, Education Committees – Course 5 Grader – 2005



J.E.P. Research Associates Ltd.

183 Wellington Street West, Suite 2402
Toronto, ON M5V 0A1

March 29, 2016

Mr. Azim Hussain
Norton Rose Fullbright Canada LLP
Suite 2500, 1 Place Ville Marie
Montréal, Quebec.
H3B 1R1

Dear Mr. Hussain,

Further to your instructions, I offer my responses to two questions you have posed regarding the Submission of the Government of Canada in the matter of the 2015 Judicial Compensation and Benefits Commission, as follows:

I. **What is your response to the argument made in the Submission of the Government of Canada (“Government Submission”) at paragraphs 152-160 to the effect that the CPI is a “more appropriate statutory indexation measure” for judges compared to the IAI?**

Changes in the IAI reflect changes in weekly wages, including changes in both the cost of living and the real wage (the standard of living). The CPI measures only changes in the prices of a given basket of goods and services. Adjusting judicial salaries by the annual change in the IAI results in annual earnings of judges keeping pace with the annual earnings of the average Canadian.

The IAI reflects the average weekly earnings of employed Canadians. Changes in these earnings over time are due to two primary factors: changes in weekly hours of work; and changes in the wage rate per unit of time (for example, the hourly wage).

Changes in the wage rate, in turn, reflect changes in general price inflation and changes in productivity. Productivity increases when workers produce more in the same amount of time. Wage changes due to changes in productivity are generally referred to as real wage changes, as distinct from nominal wage

James E. Pesando
(416) 978 - 8625
pesando@chass.utoronto.ca

Douglas E. Hyatt
(416) 946 - 0737
hyatt@rotman.utoronto.ca

Elizabeth M. Gjata (Park)
(647) 207 - 3967
eliz.park@utoronto.ca

changes, which are due to price inflation. Real wage increases, for example, reflect the extent to which workers are able to increase their purchases and, consequently, real wage increases are often interpreted as a measure of advances in the standard of living.

If periodic wage adjustments were restricted to price inflation only, then real wage changes experienced, on average, by all other workers would be ignored. Wage adjustments based upon the CPI alone would be expected to result in lower total (nominal plus real) wage increases over time.

For perspective, between the period 2004 and 2015, the IAI increased by 34.1 percent. The CPI advanced by 20.9 percent over the same period. The difference reflects, in large part, the real wage increases enjoyed by the average worker over that period (some of the difference may be due to an increase in the average weekly number of hours of work).

At paragraph 156, the Submissions of the Government of Canada state:

“IAI is based on average weekly wages and salaries of typical “wage-earners” with whom judges share few if any characteristics. The types of salaries included in the index are forestry, logging and support; utilities; construction; information and cultural industries; finance and insurance and educational industries.”

Wages of those employed in the “Legal Services” industry are also included in the IAI.

It merits emphasis that while the Government’s submissions reflect concern that the “IAI is based on average weekly wages and salaries of typical “wage-earners” with whom judges share few if any characteristics”, the corresponding concern that the basket of goods and services that go into measuring the CPI for all Canadians may not be relevant to the consumption patterns of Judges, is not expressed in the Government’s submissions.

I note that the Government makes no mention of the fact that its proposal would do away with the distinction that the legislation currently makes, for logical reasons, between the IAI and the CPI to adjust benefits payable under the

Judges Act. The rationale for indexing earnings to the IAI (s. 25(2)), but retirement benefits to the CPI (s. 42(1)), as supplemented by the *Supplementary Retirement Benefits Act*), is that employment earnings changes over time are comprised of both inflation and increases in the productivity of workers (i.e., workers produce more per unit of time than before). It is logical that judicial salaries be adjusted by an index reflecting increases in both prices and productivity. Because they are not working, retired workers do not contribute to increased productivity. Consequently, it is logical that increases in retirement income should reflect changes in prices only and not include increases in productivity.

II. **What is your response to the statement made at paragraph 152 of the Government Submission that the “CPI is a more modern and relevant measure of changes to the cost of living”?**

The CPI has been measured in Canada since at least 1914. Accordingly, it is not evident what the Government means by a “more modern” measure.

While the CPI measures changes in the cost of living faced by Canadians, it does not measure changes in wages experienced by Canadians. Changes in wages over time reflect both increases in the cost of living and real wage gains (increases in the standard of living). Consequently, it is my opinion that the IAI is a more relevant basis for salary adjustment than the CPI.

Yours truly,



Douglas E. Hyatt
Professor

CURRICULUM VITAE

March 2016

A. BIOGRAPHICAL INFORMATION

NAME: Douglas Edward Hyatt

OFFICE ADDRESS:

Joseph L. Rotman School of Management
University of Toronto
105 St. George Street
Toronto, Ontario.
Canada. M5S 3E6

TELEPHONE:

Office: (416) 946-0737

FAX: (416) 978-7030

E-MAIL: hyatt@rotman.utoronto.ca

CITIZENSHIP: Canadian

B. PROFESSIONAL ACTIVITIES

DEGREES:

Ph.D., 1992, University of Toronto, Industrial Relations.

M.A., 1987, University of Toronto, Economics.

B.A., 1984, University of Toronto, Economics.

Ph.D. Thesis: "Issues in the Compensation of Injured Workers: Returns to Risk, Work Incentives and Accommodation."

Ph.D. Supervisor: Dr. Morley Gunderson

PROFESSIONAL EMPLOYMENT

August 2015 to present:	Academic Director, Professional MBA Programs (Morning and Evening MBA, Executive MBA and OMNIUM Global Executive MBA), Rotman School of Management, University of Toronto.
July 2006 to present:	Professor, Rotman School of Management and Centre for Industrial Relations, University of Toronto.
July 2002 to June 2006:	Professor, Rotman School of Management, Centre for Industrial Relations, University of Toronto and Division of Management, University of Toronto at Scarborough.
July 2001 to June 2004:	Associate Chair, Division of Management, University of Toronto at Scarborough.

July 2002:	Visiting Professor, Department of Management, University of Melbourne.
July 1997 to June 2002:	Associate Professor, Division of Management, Scarborough College, Rotman School of Management, and Centre for Industrial Relations, University of Toronto.
July 2000 to June 2001:	Visiting Associate Professor, School of Health Administration and Policy, College of Business, Arizona State University.
September 1997 to June 2000:	Senior Scientist, Institute for Work and Health.
January 1998 to December 1998:	Director of Research, Royal Commission on Workers' Compensation in British Columbia.
September 1995 to September 1997:	Scientist and Coordinator of Networks of Centres of Excellence program (HEALNet), Institute for Work and Health.
September 1995 to June 1997:	Visiting Professor, Centre for Industrial Relations, University of Toronto.
August 1992 to June 1997:	Assistant Professor, Department of Economics and Industrial Relations Program, University of Wisconsin - Milwaukee.
April 1995 to August 1995:	Research Coordinator, Ontario Royal Commission on Workers' Compensation.
July 1994 to June 1995:	Visiting Assistant Professor, Centre for Industrial Relations, University of Toronto.
June 1989 to July 1992:	Economist, Ontario Workers' Compensation Board.
May 1991 to December 1991:	Instructor, Industrial Relations, University of Toronto.
January 1988 to March 1989:	Instructor, Personnel Association of Ontario.
October 1986 to September 1988:	Economist, Ontario Ministry of Treasury and Economics.

ACADEMIC HONOURS

Executive MBA Program, Professor of the Year:	EMBA 20 (2003), EMBA 21 (2004), EMBA 22 (2004), EMBA 23 (2005), EMBA 24 (2005), EMBA 25 (2006), EMBA 26 (2006), EMBA 27 (2007), EMBA 28 (2008), EMBA 29 (2009), EMBA 30 (2010), EMBA 31 (2011), EMBA 32 (2012), EMBA 33 (2013), EMBA 34 (2014), EMBA 35 (2015)
Global Executive MBA Program, Professor of the Year:	OMNIUM 2 (2006), OMNIUM 3 (2007), OMNIUM 4 (2008),

OMNIUM 5 (2010), OMNIUM 8 (2013), OMNIUM 9 (2014),
OMNIUM 10 (2015)

Rotman School of Management Excellence in
Teaching Award: 2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012;
2013; 2014; 2015

2006: Roger Martin and Nancy Lang Award for Excellence in Teaching, Rotman School of
Management, University of Toronto.

2001-2002: Plumtre Faculty Research Award
1989-1992: Social Sciences and Humanities Research Council Doctoral Fellowship
1990-1991: Meredith Fellowship in Workers' Compensation
1988-1989: Ontario Graduate Scholarship

PROFESSIONAL AFFILIATIONS AND RELATED ACTIVITIES

Research Associate: Institute for Policy Analysis, University of Toronto

Member of: The American Economic Association
The Canadian Economics Association

RESEARCH GRANTS

Ontario Ministry of Labour. Research Opportunities Program (2014 – 2016). “A Survey of Factors Affecting Safety
Performance in the ICI Construction Sector.” (With Brenda McCabe).

“Assessment of the human and economic burden of workplace cancer.” Multisector Team Grants in Prevention
Research, Canadian Cancer Society, 2012-2016, \$998,872, co-investigator.

Workplace Safety and Insurance Board Research Advisory Council (2003-2005). “Attitudes and Incident Causal
Modeling for Construction.” (With Brenda McCabe, Catherine Loughlin, and Susan Tighe). \$252,000.

Social Sciences and Humanities Research Council of Canada (2003-2006). “An Analysis of the Production of
Quality in Child Care.” \$45,055.

Department of Health and Human Services (1999). “Work-Related Musculoskeletal Disorders: Evaluating
Interventions Among Office Workers.” (With Donald Cole, Sheilah Hogg-Johnson and Harry Shannon)
\$400,000 US.

Child Care Visions, Human Resources Development Canada (1997). “A Policy-Evaluation Model of the Child Care
Sector.” (With Gordon Cleveland, Morley Gunderson and Michael Krashinsky) \$275,000.

Institute for Work and Health (1997). “Administrative Issues in Workers' Compensation.” (With Morley
Gunderson) \$21,800.

Donner Foundation (1996). “New Perspectives on Workers' Compensation Policy in Ontario.” (With Morley
Gunderson) \$125,000.

- W.E. Upjohn Institute for Employment Research (1996). "Pay at Risk: Increasing Compensation Risks for Workers in the United States and Canada." (With John Turner, Robert Friedland and Sophie Korczyk) \$36,625 US.
- Human Resources Development Canada (1995). "Demand and Supply Side Child Care Subsidies." (With Gordon Cleveland) \$13,000.
- Human Resources Development Canada (1995). "Child Care, Lone Parents, Social Assistance and the Employment Decision." (With Gordon Cleveland) \$30,000.
- Human Resources Development Canada (1994). "An Assessment of the Impact of Child Care Cost, Availability and Quality on Mothers' Employment." (With Gordon Cleveland) \$25,000.
- Graduate School Research Committee Award Program, University of Wisconsin - Milwaukee (1993-1994). "Labor Market Outcomes of Vocational Rehabilitation." \$8,365 US.
- Health and Welfare Canada (Child Care Initiatives Fund) (1992). "Child Care 2000." (With Gordon Cleveland) \$325,412.
- Statistics Canada (1991). "A Policy Simulation Model of the Child Care Choices of Working Mothers in Ontario." (With Gordon Cleveland) \$75,000.

C. PUBLICATIONS AND WORK-IN-PROGRESS

(a) Refereed Journal Publications

- "Behavioral Economics, Wearable Devices, and Cooperative Games: Results from a Population-based Intervention to Increase Physical Activity." *Journal of Medical Internet Research: Serious Games*, forthcoming, with T. Van Mierlo, A. Ching, R. Fournier and R. Dembo.
- "Mapping Power Distributions in Digital Health Networks: Methods, Interpretations and, Practical Implications." *Journal of Medical Internet Research*, 2015; 17(6):e160, with T. Van Mierlo and A. Ching.
- "Wearables, Gamified Group Challenges and Behavioral Incentives: A Preliminary Study of An Engagement Program to Increase Physical Activity." *iProc*, 2015; 1(1):e1, with T. Van Mierlo, A. Ching, R. Fournier and R. Dembo.
- "Managing the supply of physicians' services through intelligent incentives." *Canadian Medical Association Journal* 184:E77-E80 (January 10, 2012, published ahead of print November 28, 2011) (with B. Golden and R Hannam).
- "Consequences of the Performance Appraisal Experience." *Personnel Review*, 39, No. 3 (2010), 375-396 (with M. Brown).
- "Workplace Violence and the Duration of Workers' Compensation Claims." *Relations Industrielles/ Industrial Relations*, 63, No. 1 (2008), 57-84 (with M. Campolieti and J. Goldenberg).
- "Determinants of Stress in Medical Practice: Evidence from Ontario." *Relations Industrielles/ Industrial Relations*, 62, No. 2 (2007), 226-257 (with M. Campolieti and B. Kralj).

- “Experience Rating, Work Injuries and Benefit Costs: Some New Evidence.” *Relations Industrielles/Industrial Relations*, 61, No. 1 (2006), 118-145 (with M. Campolieti and T. Thomason).
- “Further Evidence for Interpreting the "Monday Effect" in Workers' Compensation.” *Industrial and Labor Relations Review*, 59, No. 3 (2006), 438-450 (with M. Campolieti).
- “Strike Incidence and Strike Duration: Some New Evidence from Ontario.” *Industrial and Labor Relations Review*, 58, No. 4 (2005), 610-630, (with M. Campolieti and R. Hebdon).
- “Child Care Subsidies, Welfare Reforms and Lone Mothers.” *Industrial Relations*, 42, No. 2, (2003), 251-269, (with G. Cleveland).
- “Symposium: The Effect of Work-Family Policies on Employees and Employers.” *Industrial Relations*, 42, No. 2, (2003), 139-144, (with R. Drago).
- “Union Impacts in Low-Wage Services: Evidence From Canadian Child Care.” *Industrial and Labor Relations Review*, 56, No. 2 (2003), 295-305, (with G. Cleveland and M. Gunderson).
- “Child Care Workers’ Wages: New Evidence on Returns to Education, Experience, Job Tenure and Auspice.” *Journal of Population Economics*, 15, No. 3 (2002), 575-597, (with G. Cleveland).
- “Workplace Risks and Wages: Canadian Evidence from Alternative Models.” *Canadian Journal of Economics*, 34, No. 2 (2001), 377-395, (with M. Gunderson).
- “The Impact of Representation (and Other Factors) on Employee-Initiated Workers' Compensation Appeals.” *Industrial and Labor Relations Review*, 53, No. 4 (July 2000), 665-683, (with B. Kralj).
- “Privatization of Workers’ Compensation: Will the Cure Kill the Patient?” *International Journal of Law and Psychiatry*, 22, No. 5-6 (1999), 547-565, (with M. Gunderson).
- “Implications of Small Bargaining Units and Independent Unions for Bargaining Disputes: A Look into the Future?” *Relations industrielles/Industrial Relations*, 54, No. 3 (Summer 1999), 503-526, (with R. Hebdon and M. Mazerolle).
- “Free Trade, Global Markets, and Alternative Work Arrangements.” *Proceedings of the 51st Annual Meetings of the Industrial Relations Research Association (refereed papers in labor economics)*, 1999, 152-160, (with K. Roberts).
- “The Effects of Industrial Relations Factors on Health and Safety Conflict.” *Industrial and Labor Relations Review*, 51, No. 4 (July 1998), 579-593, (with R. Hebdon).
- “Do Employees Actually Bear the Risk in Defined Benefit Pension Plans?” *Canadian Labour and Employment Law Journal*, 5, No. 1, (1997), 125-138, (with J.E. Pesando).
- “Do Injured Workers Pay for Reasonable Accommodation?” *Industrial and Labor Relations Review*, 50, No. 1, (October 1996), 92-104, (with M. Gunderson).
- “Work Disincentives of Workers' Compensation Permanent Partial Disability Benefits: Evidence for Canada.” *Canadian Journal of Economics*, 29, No. 2 (May 1996), 289-308.

“Collective Bargaining in the Public Sector: Comment.” *American Economic Review*, 86, No. 1 (March 1996), 315-326 (with M. Gunderson and R. Hebdon).

“The Distribution of Investment Risk in Defined Benefit Pension Plans: A Reconsideration.” *Relations industrielles/Industrial Relations*, 51, No. 1 (Winter 1996), 136-157 (with J. Pesando).

“Child Care Costs and the Employment Decision of Women: Evidence for Canada.” *Canadian Journal of Economics*, 29, No. 1 (February 1996), 132-151 (with G. Cleveland and M. Gunderson).

“On the Edge: Single Mothers' Employment and Child Care Arrangements for Young Children.” *Canadian Journal of Research in Early Childhood Education. Special Issue on Child Care*, 5, No. 1, (February 1996), 13-25 (with G. Cleveland).

“Workplace Innovation in the Public Sector: The Case of the Office of the Ontario Registrar General.” *Journal of Collective Negotiations in the Public Sector*, 25, No. 1 (1996), 63-81 (with R. Hebdon).

“Reasonable Accommodation Requirements Under Workers' Compensation in Ontario.” *Relations industrielles/Industrial Relations*, 50, No. 2, (Spring 1995), 341-360 (with M. Gunderson and D. Law).

“The Impact of Workers' Compensation Experience Rating on Employer Appeals Activity.” *Industrial Relations*, 34, No. 1, (January 1995), 95-106 (with B. Kralj).

“Determinants of Child Care Choice: A Comparison of Results for Ontario and Quebec.” *Canadian Journal of Regional Science*, 16, No. 1 (1993), 53-67 (with G. Cleveland).

“Determinants of Fertility in Urban and Rural Kenya: Estimates and a Simulation of the Impact of Education Policy.” *Environment and Planning A*, 25 (1993), 371-382 (with W. Milne).

“Re-Employment and Accommodation of Injured Workers under Ontario's Workers' Compensation Act.” *Journal of Individual Employment Rights*, 1, No. 3 (1992), 253-262.

“Early Retirement Pensions and Employee Turnover: An Application of the Option Value Approach.” *Research in Labor Economics*, 13 (1992), 321-337 (with J. Pesando and M. Gunderson).

“Wage-Pension Trade-Offs in Collective Agreements.” *Industrial and Labor Relations Review*, 46, No. 1 (October 1992), 146-160 (with M. Gunderson and J. Pesando).

“Countercyclical Fertility in Canada: Some Empirical Results.” *Canadian Studies in Population*, 18, No. 1 (1991), 1-16 (with W. Milne).

“Can Public Policy Affect Fertility?” *Canadian Public Policy*, 17, No. 1 (March 1991), 77-85 (with W. Milne).

(b) Refereed Monographs

“New Evidence about Child Care in Canada: Use Patterns, Affordability and Quality.” *Choices*, Institute for Research on Public Policy (IRPP), 4, No. 12 (October 2008), (with G. Cleveland, B. Forer, C. Japel and M. Krashinsky).

“Pay Differences between the Government and Private Sectors: Labour Force Survey and Census

Estimates.” CPRN Discussion Paper No. W|10, February 2000, (with Morley Gunderson and Craig Riddell).

“Subsidizing Child Care for Low-Income Families: A Good Bargain for Canadian Governments?” Choices, Institute for Research on Public Policy (IRPP), 4, No. 2 (May 1998), (with Gordon Cleveland).

“Using the NLSCY to Study the Effects of Child Care on Child Development.” Research Paper T-97-6E, Applied Research Branch, Strategic Policy, Human Resources Development Canada, September 1997 (with G. Cleveland). Also available in French as Research Paper T-97-6F.

“Subsidies to Consumers or Subsidies to Providers: How Should Governments Provide Child Care Assistance?” Research Paper R-97-7E, Applied Research Branch, Strategic Policy, Human Resources Development Canada, May 1997 (with G. Cleveland). Also available in French as Research Paper R-97-7F.

“Child Care, Social Assistance and Work: Lone Mothers with Preschool Children.” Working Paper W-96-2E, Applied Research Branch, Strategic Policy, Human Resources Development Canada, March 1996 (with G. Cleveland).

(c) Edited Volumes and Special Journal Issues

Symposium: The Effect of Work-Family Policies on Employees and Employers. *Industrial Relations*, Volume 42, No. 2 (April 2003).

Workers’ Compensation: Foundations for Reform. (Toronto, Ont.: University of Toronto Press), 2000 (with M. Gunderson).

New Approaches to Disability in the Workplace. Industrial Relations Research Association, (Ithaca, NY: Cornell University Press for the IRRA), 1998 (with J.F. Burton Jr. and T. Thomason).

Public Sector Employment in a Time of Transition. Industrial Relations Research Association, (Ithaca, NY: Cornell University Press for the IRRA), 1996, (with D. Belman and M. Gunderson).

(d) Chapters in Books

“Consequences of the Performance Appraisal Experience.” In New Perspectives in Employee Engagement in Human Resources. (Bingley, United Kingdom: Emerald Gems Series, Emerald Group Publishing Limited) 2015, (with M. Brown).

“Does Vocational Rehabilitation Have Much Impact on Helping People Return to Work.” In D. Taras and K. Williams-Whitt (eds.) Perspectives on Disability and Accommodation. (Victoria, B.C.: National Institute of Disability Management and Research), 2011, 225-244, (with M. Campolieti).

“Strikes and Dispute Resolution.” In M. Gunderson, A. Ponak and D. Taras (eds.), Union-Management Relations in Canada, sixth edition. (Don Mills, Ontario: Addison-Wesley Publishers Limited), 2009, 322-360, (with M. Gunderson, and R. Hebdon).

“Union Impact on Compensation, Productivity, and Management of the Organization.” In M. Gunderson, A. Ponak and D. Taras (eds.), Union-Management Relations in Canada, sixth edition. (Don Mills, Ontario: Addison-Wesley Publishers Limited), 2009, 383-402, (with M. Gunderson).

“Employer-Based Health Insurance: A Way for the Future?” In C. Flood, M. Stabile and C. Tuohy (eds.), Exploring Social Insurance: Can a Dose of Europe Cure Canadian Health Care Finance. (Montreal, Que.: McGill-Queen’s University Press) 2008, 91-113, (with M. Gunderson).

“The Comparison of Private Insurers and Public Insurers in Workers’ compensation Systems.” In M. Shinada (ed.), Workers’ compensation and Moral Hazard. Law and Economic Analysis of Workers’ Compensation Insurance in North America. Kyoto: Horitsu Bunkasha Publishers, 2006. (with M. Gunderson)

“Workers’ Compensation and Return-to-Work.” In M. Shinada (ed.), Workers’ compensation and Moral Hazard. Law and Economic Analysis of Workers’ Compensation Insurance in North America. Kyoto: Horitsu Bunkasha Publishers, 2006. (with M. Gunderson)

“Mandatory Retirement: Not as Simple as it Seems.” In C.T. Gillin, D. MacGregor and T. Klassen (eds.), Time’s Up! Mandatory Retirement in Canada. (Toronto: James Lorimer and Company Ltd. for the Canadian Association of University Teachers), chapter 8, 2005. (with M. Gunderson).

“Issues in Workers’ Compensation Appeals System Reform.” In K. Roberts, J.F. Burton, Jr. and M. Bodah (eds.), Workplace Injuries and Diseases: Prevention and Compensation – Essays in Honor of Terry Thomason. (Kalamazoo: W.E. Upjohn Institute for Employment Research), 2005, 117-140.

“Strikes and Dispute Resolution.” In M. Gunderson, A. Ponak and D. Taras (eds.), Union-Management Relations in Canada, fifth edition. (Don Mills, Ontario: Addison-Wesley Publishers Limited), 2004, 332-370, (with M. Gunderson, R. Hebdon and A. Ponak).

“Union Impact on Compensation, Productivity, and Management of the Organization.” In M. Gunderson, A. Ponak and D. Taras (eds.), Union-Management Relations in Canada, fifth edition. (Don Mills, Ontario: Addison-Wesley Publishers Limited), 2004, 394-413, (with M. Gunderson).

“Health and Coverage at Risk.” In J. Turner (ed.), Pay at Risk: Compensation and Employment Risk in the United States and Canada. (Kalamazoo: W.E. Upjohn Institute for Employment Research), 2001, 83-114, (with R. Friedland, L. Summer and S. Korczyk).

“Risk Shifting in Workers’ Compensation.” In J. Turner (ed.), Pay at Risk: Compensation and Employment Risk in the United States and Canada. (Kalamazoo: W.E. Upjohn Institute for Employment Research), 2001, 161-190.

“Issues in the Professionalization of Child Care.” In G. Cleveland and M. Krashinsky (eds.), Our Children’s Future: Child Care Policy in Canada. (Toronto: University of Toronto Press), 2001, 394-396.

“Public Pension Plans in the United States and Canada.” In W. Alpert and S. Woodbury (eds.), Employee Benefits and Labor Markets in Canada and the United States. (Kalamazoo, MI: The Upjohn Institute), 2000, 381-411, (with M. Gunderson and J.E. Pesando).

“Strikes and Dispute Resolution.” In M. Gunderson, A. Ponak and D. Taras (eds.), Union-Management Relations in Canada, fourth edition. (Don Mills, Ontario: Addison-Wesley Publishers Limited), 2000, 314-358, (with M. Gunderson and A. Ponak).

“Union Impact on Compensation, Productivity, and Management of the Organization.” In M. Gunderson, A. Ponak and D. Taras (eds.), Union-Management Relations in Canada, fourth edition. (Don Mills,

Ontario: Addison-Wesley Publishers Limited), 2000, 385-413, (with M. Gunderson).

“Foundations for Workers’ Compensation Reform: Overview and Summary.” In M. Gunderson and D. Hyatt (eds.), Workers’ Compensation: Foundations for Reform. (Toronto, Ont.: University of Toronto Press), 2000, 3-26, (with M. Gunderson).

“Unfunded Liabilities Under Workers’ Compensation.” In M. Gunderson and D. Hyatt (eds.), Workers’ Compensation: Foundations for Reform. (Toronto, Ont.: University of Toronto Press), 2000, 162-186, (with M. Gunderson).

“Should Work Injury Compensation Continue to Imbibe at the Tort Bar?” In M. Gunderson and D. Hyatt (eds.), Workers’ Compensation: Foundations for Reform. (Toronto, Ont.: University of Toronto Press), 2000, 327-360, (with D. Law).

“Workforce and Workplace Changes: Implications for Injuries and Compensation.” In T. Sullivan (ed.), Injury and the New World of Work. (Vancouver, B.C.: UBC Press), 2000, 46-68, (with M. Gunderson).

"Disability in the Workplace." (With Terry Thomason and John F. Burton Jr.). In T. Thomason, D. Hyatt and J. Burton Jr. (eds.), New Approaches to Disability in the Workplace. Industrial Relations Research Association, (Ithaca, NY: Cornell University Press for the IRRA), 1998, 1-37, (with T. Thomason and K. Roberts).

“Disputes and Dispute Resolution in Workers' Compensation.” (With Terry Thomason and Karen Roberts). In T. Thomason, D. Hyatt and J. Burton Jr. (eds.), New Approaches to Disability in the Workplace. Industrial Relations Research Association, (Ithaca, NY: Cornell University Press for the IRRA), 1998, 269-297, (with T. Thomason and K. Roberts).

“Labour Adjustment Policy and Health: Considerations for a Changing World.” In Determinants of Health: Settings and Issues. (St.-Foy, Que.: Les Editions MultiMondes for the National Forum on Health), 1998 (with T. Sullivan, O. Uneke, J. Lavis, and J. O'Grady). Also available in French.

“Intergenerational Considerations of Workers' Compensation Unfunded Liabilities.” In Miles Corak (ed.), Government Finances and Generational Equity. Statistics Canada Catalogue no. 68-513-XPB. (Ottawa: Minister of Industry), 1998 (with M. Gunderson). Also available in French.

“Workers' Compensation Costs in Canada: 1961-1993.” In M. Abbott, C. Beach and R. Chaykowski (eds.), Transition and Structural Change in the North American Labour Market. (Kingston: Industrial Relations Centre and John Deutch Institute, Queen's University distributed by IRC Press), 1997, 235-255, (with T. Thomason).

“Public Sector Employment Relations in Transition.” In D. Belman, M. Gunderson and D. Hyatt (eds.), Public Sector Employment in a Time of Transition. Industrial Relations Research Association, (Ithaca, NY: Cornell University Press for the IRRA), 1996, (with D. Belman and M. Gunderson).

“Canadian Public Sector Employment Relations in Transition.” In D. Belman, M. Gunderson and D. Hyatt (eds.), Public Sector Employment Relations in a Time of Transition. Industrial Relations Research Association, (Ithaca, NY: Cornell University Press for the IRRA), 1996, (with M. Gunderson).

“The Effect of Free Trade on Contingent Work in Michigan.” In Karen Roberts and Mark I. Wilson (eds.), Policy Choices: Free Trade Among NAFTA Nations. (East Lansing, MI: Michigan State University

Press), 1996, 235-260, (with K. Roberts and P. Dorman).

“The Evolution of Workers' Compensation Costs in Canada.” In John F. Burton, Jr. (ed.), 1996 Workers' Compensation Yearbook. (Horsham, PA: LRP Publications), 1995, I-39 to I-48, (with T. Thomason).

“Alternative Methods for Modeling Regional Industrial Activity: Short Run Versus Long Run.” In M. Popov (ed.), The Issues of Elaboration and Implementation of Regional Development Programs under the Transition to a Market Economy. (Donetsk, Ukraine: Donetsk Polytechnical Institute), 1995, 48-52. (Text in Russian).

“Union Impact on Compensation, Productivity, and Management of the Organization.” In M. Gunderson and A. Ponak (eds.), Union-Management Relations in Canada, third edition. (Don Mills, Ontario: Addison-Wesley Publishers Limited), 1995, 311-337, (with M. Gunderson).

“Strikes and Dispute Resolution.” In M. Gunderson and A. Ponak (eds.), Union-Management Relations in Canada, third edition. (Don Mills, Ontario: Addison-Wesley Publishers Limited), 1995, 373-411, (with M. Gunderson and A. Ponak).

“Re-Employment and Accommodation Requirements under Workers' Compensation.” In T. Thomason and R. Chaykowski (eds.), Research in Canadian Workers' Compensation. (Kingston: Queen's University IRC Press), 1995, 141-157, (with M. Gunderson and D. Law).

“Measuring the Impact of Vocational Rehabilitation on the Probability of Post-Injury Return to Work.” In T. Thomason and R. Chaykowski (eds.), Research in Canadian Workers' Compensation. (Kingston: Queen's University IRC Press), 1995, 158-180, (with R. Allingham).

(e) Conference Proceedings

“Employment Equity in Canada and the United States.” *Proceedings of the 54th Annual Meeting of the Industrial Relations Research Association*, 2002, 146-153 (with M. Gunderson and S. Slinn).

“Contingent Work: The Role of the Market, Collective Bargaining and Legislation.” *Proceedings of the 53rd Annual Meeting of the Industrial Relations Research Association*, 2001, 99-107 (with M. Gunderson).

“Child Care Choice for Pre-School Children of Employed Mothers in Ontario, Quebec and Alberta in 1988.” *Proceedings of the 29th Conference of the Canadian Industrial Relations Association*, 1993, 355-366 (with G. Cleveland).

“Projections of the Effect of Government Child Care Policy on Parents Choice of Child Care Arrangements.” *Proceedings From the Child Care Policy Research Symposium*, (Toronto: Child Care Resource and Research Unit), 1993 (with G. Cleveland).

“Workers' Compensation Costs and Competitiveness: Issues and Inter-Jurisdictional Comparisons.” *Proceedings of the 28th Conference of the Canadian Industrial Relations Association*, 1992, 421-429 (with B. Kralj).

“Employer Appeals of Workers' Compensation Board Decisions: The Impact of Experience Rating.” *Proceedings of the 27th Conference of the Canadian Industrial Relations Association*, 1991, 329-337 (with B. Kralj).

(f) Book Reviews

Labour Relations and Health Reform. A Comparative Study of Five Jurisdictions. Edited by Kurt Wetzel. *Relations Industrielles/ Industrial Relations*, 62, No. 4, 2007), 781-783.

Adequacy of Earnings Replacement in Workers' Compensation Programs. Edited by H. Allan Hunt. *Industrial and Labor Relations Review*, 59, No. 1 (2005), 160-161

(g) Non-Refereed Publications

"Safety in the Ontario Construction Industry." *Building Ontario*, Winter 2007/2008, 10-11 (with B. McCabe, C. Loughlin, and S. Tighe).

"Strategies for Engendering Healthy Workplaces." *Economic Issues Note*, Economic Analysis and Evaluation Division, Health Canada, July 2004, 1-9 (with B. Shapansky, J. Bourgeois, P. De Civita, and M. Gunderson).

"Economics and RSI/WMSD: Coming to Grips with Economic Causes, Costs and Efficiency." (With Donald C. Cole and Sandra Sinclair), 1998, Institute for Work and Health Working Paper.

"New Approaches the Disability in the Workplace." *Labor Law Journal*, 49, No. 7, 1998, 1175-1187 (with T. Thomason and J. Burton, Jr.).

"Assessing Federal Child Care Policy: Does the Arrow Reach its Target?" *Policy Options*, 17, No. 1, (January-February 1997), 20-24 (with G. Cleveland).

"The Evolution of Workers' Compensation Costs in Canada." *Workers' Compensation Monitor*, 9, No. 1, (May-June 1996), 4-13 (with T. Thomason).

(h) Reports to Governments, Commissions and Task Forces

"Feasibility Study To Develop a Tool to Assist in Projecting Insurable Earnings and Employment." (Ontario) Workplace Safety and Insurance Board, November 2014 (39 pages).

"An Overview of the Financial Impact of the Canadian Music Industry." Report to the Ontario Media Development Corporation (OMDC), May 2008 (report released June 6, 2008) (95 pages).

"An Economic Perspective on the Current and Future Role of Nonprofit Provision of Early Learning and Child Care Services in Canada." Final report to Human Resources and Skills Development Canada. (With G. Cleveland, B. Forer, C. Japel and M. Krashinsky), March 1, 2007 (83 pages).

"Attitudes and Incident Modeling for Construction Safety." A report to the Research Advisory Council of the Ontario Workplace Safety and Insurance Board (WSIB). (With B. McCabe, C. Loughlin and S. Tighe), July 2006.

"Canadian Commercial Radio Broadcasting: Historical Financial Performance and Projections." Paper prepared for L'Association quebecois de l'industrie du disque, du spectacle et de la video (ADISQ) and the Canadian Independent Record Production Association (CIRPA) for the Canadian Radio-television and Telecommunications Commission's Review of Commercial Radio Policy. (With Paul Audley), May 16, 2006 (40 pages).

“A Proposal to Revise the CRTC’s Canadian Talent Development Policy for Canadian Commercial Radio Broadcasters.” Paper prepared for L’Association quebécois de l’industrie du disque, du spectacle et de la vidéo (ADISQ) for the Canadian Radio-television and Telecommunications Commission’s Review of Commercial Radio Policy. (With Paul Audley), May 16, 2006 (30 pages).

“Economic Incentives: Strategies for Engendering Healthy Workplaces.” A Report to Health Canada. (With M. Gunderson), March 2002.

“Issues in Workers’ Compensation for 2001.” A Report to the Workers’ Compensation Board of Manitoba. January 2001.

“Final Report of the Child Care Policy-Evaluation Model Project.” A Report to Child Care Visions, Human Resources Development Canada. (With G. Cleveland, M. Gunderson and M. Krashinsky), March 2001.

“Some Benefit Considerations in Workers’ Compensation.” A Report to the Royal Commission on Workers’ Compensation in British Columbia. (With M. Gunderson), June 1998.

“Waiting Periods and Direct Payments in Workers’ Compensation.” A Report to the Royal Commission on Workers’ Compensation in British Columbia. (With M. Gunderson), June 1998.

“Evidence on the Efficacy of Experience Rating in British Columbia.” A Report to the Royal Commission on Workers’ Compensation in British Columbia. (With T. Thomason), May 1998.

“Subsidies to Consumers or Subsidies to Providers: How Should Governments Provide Child Care Assistance?” A Report to the Applied Research Branch of the Social Policy Group of Human Resources Development Canada. (With G. Cleveland), March 1996.

“The Cost of Doing Nothing: Why an Active Labour Adjustment Strategy Makes Sense in Ontario’s Health Sector.” A Report to the Ontario Health Sector Training and Adjustment Program. (With M. Gunderson), February 1996.

“Final Report of the Child Care 2000 Project.” A Report to Human Resources Development Canada (the Child Care Initiatives Fund). (With G. Cleveland), August 1995.

“The Alberta Child Care Demand Model.” A Report to Human Resources Development Canada (the Child Care Initiatives Fund). (With G. Cleveland), July 1995.

“The Quebec Child Care Demand Model.” A Report to Human Resources Development Canada (the Child Care Initiatives Fund). (With G. Cleveland), July 1995.

“Baseline Study for Canada.” A Report to the Employment Department, Government of England. (With M. Gunderson), May 1995.

“Child Care, Social Assistance and Work: Single Parents with Preschool Children.” A Report to Human Resources Development Canada. (With G. Cleveland), April 1995.

“An Assessment of the Impact of Child Care Cost, Availability and Quality on Mothers’ Employment: Final Report.” A Report to Human Resources Development Canada. (With G. Cleveland), November 1994.

“An Assessment of the Impact of Child Care Cost, Availability and Quality on Mothers’ Employment: An Interim Report.” A Report to Human Resources Development Canada. (With G. Cleveland), March 1994.

“The Ontario Child Care Demand Model: Final Report.” A Report to Statistics Canada. (With G. Cleveland), August 1993.

“What is Success in Employment Equity? A Regression-Based Analysis of Factors Influencing the Representation of Designated Groups in Varying Employment Situations.” A Report to Employment and Immigration Canada. (With E. Harvey), May 1992.

“Results of Estimation of Child Care Demand Model.” A Report to Statistics Canada. (With G. Cleveland), September 1991.

“Modeling Child Care Demand Using the 1988 National Child Care Survey.” A Report to Statistics Canada. (With G. Cleveland), June 1991.

“Collective Bargaining, Hours of Work and Overtime: A Report to the Ontario Task Force on Hours of Work and Overtime.” (With E. Swimmer and M. Gunderson) Queen’s Printer, 1988.

(i) Copyright Tariff Reports

CMRRA/SODRAC Inc. – Online Music Services 2008-2010.

CMRRA/SODRAC Inc. - Multi-Channel Subscription Radio Services, 2006-2009.

Access Copyright Reprographic Reproductions in Canada by Educational Institutions, 2005-2009.
CMRRA/SODRAC (CSI) On-Line Music Services, 2005-2007.

NRCC Background Music Tariff 3, 2003-2009.

CMRRA/SODRAC Pay Audio Services Tariff 4.

SOCAN/NRCC Commercial Radio Tariff 1.A, 2003-2007.

(j) Other Manuscripts

“Unbottling a Gini: Leveraging Fundamentals of Economic Theory to Detect Patterns of Engagement in Digital Health Social Networks.” (With T. VanMierlo and A. Ching). 2016.

“Construction Safety Climate in Ontario: A Longitudinal Study.” (With B. McCabe, E. Alderman, and Y. Chen). 2016.

“Safety and Age: a Longitudinal Study of Ontario Construction Workers.” (With Y. Chen and B. McCabe). 2016.

“Data Collection Framework for Construction Safety Research.” (With Y. Chen, E. Alderman and B. McCabe), May 2015.

“Safety Impacts of a Mobile Labour Force.” (With B. McCabe), January 2013.

RESEARCH IN PROGRESS

“Gamification Incentives and Population Health Outcomes.”

“Construction Safety Practices.”

“Determinants of Compensation in the Child Care Industry.”

CONFERENCE PAPERS AND OTHER PRESENTATIONS

“Wearables, Gamified Group Challenges and Behavioral Incentives: A Preliminary Study of an Engagement Program to Increase Physical Activity.” With T. Van Mierlo, A. Ching, R. Fournier and R. Dembo. Partners HealthCare Connected Health. Boston MA, October 2015.

“Shopping Malls and Digital Health Networks: Predicting Patterns of Use.” With T. Van Mierlo and A. Ching. Presented at Stanford Medical School, September 26, 2015.

“Data Collection Framework for Construction Safety Research.” With Y. Chen, E. Alderman and B. McCabe. Presented at the 5th International/11th Construction Specialty Conference, Vancouver British Columbia, June 9, 2015.

“A Venture Capital Perspective on Intellectual Property.” presented at IPgentsia, University of Waterloo Office of Research, April 2, 2008.

“Some Implication of Demographic Change for the Economics of Media.” Ryerson University, September 12, 2007.

“Employer-Based Health Insurance: A Way for the Future?” (with M. Gunderson) presented at the Social Insurance for Health Care: Legal and Political Considerations conference, School of Public Policy and Governance, University of Toronto. November 9, 2006.

“Does Vocational Rehabilitation Have Much Impact on Helping People Return to Work.” (with M. Campolieti), presented at the Accommodating Disability in the Workplace: Research, Policy and Practice, co-sponsored by the Institute for Advanced Policy Research, the Industrial Relations Research Group at the University of Calgary, the Workers Compensation Board of Alberta, and the Faculty of Management at the University of Alberta, Calgary, Alberta, June 14, 2006.

“Comments on Einhorn and McKie.” Digital Copyright Reform in Canada: An International Perspective. Toronto, Ontario. March 3, 2006.

“Pricing Issues Facing Music Publishers and Recording Companies.” Digital Music Summit, Toronto, Ontario. March 1, 2006.

“History and Economic Perspectives on Current Issues in Workers’ Compensation Reform in Canada.” Presentation to the Ministry of Health, Labor and Welfare, Government of Japan, Tokyo, Japan, August 10, 2004.

“Issues in Workers’ Compensation Appeals System Reform,” presented at Workers’ Compensation: Current and Emerging Issues, A Conference in Memory of Terry Thomason, University of Rhode Island, Kingston Rhode Island,

March 27, 2004.

“Dysfunctional Aspects of Performance Appraisal,” (with M. Brown and J. Benson), presented at the meetings of the Canadian Industrial Relations Association, Halifax, Nova Scotia, June 1, 2003.

“The Recipe for Good Quality Early Childhood Care and Education: Do We Know the Key Ingredients?” (with G. Cleveland), presented at the meetings of the Canadian Economics Association, Ottawa, Ontario, May 31, 2003.

“Lessons from Some "Contingent Workers" who Sought Union Certification,” (with S. Slinn), presented at the meetings of the Industrial Relations Research Association, Atlanta, GA, January 6, 2002.

“Employment Equity in Canada and the U.S.” (with M. Gunderson and S. Slinn), presented at the meetings of the Industrial Relations Research Association, Atlanta, GA, January 5, 2002.

“Strike Duration: Theory and Evidence,” (with R. Hebdon), presented at the meetings of the Canadian Industrial Relations Association, Laval Quebec, May 27, 2001.

“Contingent Work: The Role of the Market, Collective Bargaining and Legislation,” (with M. Gunderson), presented at the meetings of the Industrial Relations Research Association, New Orleans, LA, January 5, 2001.

“Simulating the Effects of Child Care Policy in Canada,” presented at the meetings of the Canadian Employment Research Forum, Vancouver, British Columbia, June 1, 2000.

“Should Experience Rating Be Abolished,” Invited speaker, Canadian Bar Association – Ontario Workers’ Compensation Group. February 9, 2000.

“Does the Child Care Labor Market Work? Provocative Evidence From Canada,” presented at the Institute for the Study of Labor (IZA) conference, The Economics of Childcare, Bonn, Germany, November 15, 1999.

“Intergenerational Considerations of Workers’ Compensation Unfunded Liabilities in Ontario,” presented at the meetings of the Workers’ Compensation Research Group, Toronto, Ontario, June 6, 1999.

“Working with Young Children: Comments,” presented at the Good Child Care Symposium, Toronto, Ontario, May 30, 1999.

“Translating Cancer Epidemiology Findings into Workplace Policy,” presented at the meetings of the Canadian Society for Epidemiology and Biostatistics, Vancouver, BC, May 6, 1999 (invited speaker).

“Free Trade, Global Markets and Alternative Work Arrangements: Canada versus the United States”, (with K. Roberts), presented at the meetings of the Industrial Relations Research Association, New York, NY, January 5, 1999.

“Disputes and Dispute Resolution in Social Security and Workers’ Compensation,” (with T. Thomason and K. Roberts), presented at the meetings of the Industrial Relations Research Association, Chicago, IL, January 5, 1998.

“Inter-Generational Considerations of Workers' Compensation Unfunded Liabilities,” (with M. Gunderson), presented at the Statistics Canada/Human Resources Development Canada conference, Inter-Generational Equity in Canada, Ottawa, Ontario, February 20, 1997.

“Economics and RSI/WMSD: Coming to Grips with Economic Causes, Costs and Efficiency,” (with D. Cole and S.

Sinclair), presented at the Ontario Physiotherapy Association Internal Symposium on Global Rehabilitation Trends, Toronto, Ontario, January 17, 1997.

“Public Pensions, Age and Gender: A U.S. Canada Comparison,” (with M. Gunderson and J. Pesando), presented at the meetings of the American Economic Association, San Francisco, CA, January 6, 1996.

“Canadian Public Sector Employment Relations in Transition,” (with M. Gunderson), presented at the meetings of the Industrial Relations Research Association, San Francisco, CA, January 6, 1996.

“Free Trade, Global Markets and Alternative Work Arrangements: Canada Versus the United States,” (with Karen Roberts), presented at the Biennial Conference of the Association of Canadian Studies in the United States, Seattle, Washington, November 18, 1995.

“Child Care and Work Decisions of Lone Parent Mothers,” (with G. Cleveland), presented at the meetings of the Canadian Economics Association, Montreal, Quebec, June 1995.

“Legal Structure, Dispute Resolution and Compensation in the Canadian Public Sector,” presented at the World Congress of the International Industrial Relations Association, Washington, D.C., June 1, 1995.

“Post-Injury Labour Market Outcomes of Workers' Compensation Recipients,” (with T. Thomason), presented at the Transition and Structural Change in the North American Labour Market conference, Queen's University, Kingston, Ontario, May 26, 1995.

“The Effect of Economic Integration on Contingent Work,” (with K. Roberts and P. Dorman) presented at the Free Trade Among Nations: NAFTA Implications for Michigan conference, East Lansing Michigan, November 14, 1994.

“Public Pension Plans in the United States and Canada,” (with M. Gunderson and J.E. Pesando) presented at the Upjohn Institute Project on Employee Benefits, Labor Costs and Labor Markets in Canada and the United States conference, Kalamazoo, Michigan, November 4, 1994.

“Workplace Restructuring in the Public Sector,” (with R. Hebdon), presented at the Collective Bargaining Group conference, Toronto, Ontario, October 15, 1994.

“Does Child Care Policy Matter?” (with G. Cleveland), presented at the Canadian Law and Economics Association Conference, Toronto, Ontario, October 1, 1994.

“Optimum Child Care Choice and Mother's Labour Force Participation: A Nested Logit Analysis,” (with G. Cleveland), presented at the meetings of the Canadian Economics Association, Calgary, Alberta, June 10, 1994.

“Child Care Choice and Labour Force Participation of Mothers: A Canadian Regional Perspective,” (with G. Cleveland) presented at a joint session of the Canadian Economics Association and the Canadian Regional Science Association, Calgary, Alberta, June 10, 1994.

“Determinants of Child Care Choice: A Comparison of Results for Ontario and Quebec,” (with G. Cleveland), presented at the Pacific Regional Science Association Meetings, Whistler, B.C., July 13, 1993.

“Alternative Methods for Modeling Regional Industrial Activity: Short Run Versus Long Run,” presented at the conference, The Issues of Elaboration and Implementation of Regional Development Programs under the Transition to a Market Economy, Donetsk Polytechnical Institute, Donetsk, Ukraine, May 19, 1993.

“Measuring the Impact of Vocational Rehabilitation on the Probability of Post-Injury Return to Work,” (with R. Allingham) presented at the conference, Challenges to Workers' Compensation in Canada, Queen's University, Kingston, Ontario, April 29, 1993.

“Re-Employment and Accommodation Requirements Under Workers' Compensation,” (with M. Gunderson and D. Law) presented at the conference, Challenges to Workers' Compensation in Canada, Queen's University, Kingston, Ontario, April 29, 1993.

“Child Care Use Patterns of the Pre-School Children of Employed Single Mothers,” (with G. Cleveland) presented at a joint session of the Canadian Economics Association and the Canadian Industrial Relations Association, Charlottetown, P.E.I., June 6, 1992.

“Child Care Choice for Pre-School Children of Employed Mothers in Ontario, Alberta and Quebec,” (with G. Cleveland) presented at a joint session of the Canadian Economics Association and the Canadian Industrial Relations Association, Charlottetown, P.E.I., June 6, 1992.

“The Distribution of Investment Risk in Defined Benefit Pension Plans: A Re-Examination,” (with J. Pesando) presented at the Current Pension Policy Issues conference, Centre for Pension and Retirement Research, Miami University, Miami, Ohio, March 27-8, 1992.

“Workers' Compensation Costs and Competitiveness: Issues and Inter-Jurisdictional Comparisons,” (with B. Kralj) presented at the meetings of the Canadian Industrial Relations Association, Kingston, Ontario, June 4, 1991.

“Projections of the Effect of Government Child Care Policy on Parents Choice of Child Care Arrangements,” (with G. Cleveland) presented at the meetings of the Canadian Society for the Study of Education, Kingston, Ontario, June 3, 1991.

“The Effect of Price on Choice of Child Care Arrangements,” (with G. Cleveland) presented at the meetings of the Canadian Economics Association, Kingston Ontario, June 3, 1991.

“The School to Labour Force Transition: Preliminary Results for Columbia,” (with L. Kumaranayake) presented at the meetings of the Canadian Economics Association, Kingston Ontario, June 2, 1991.

“Labour Force Participation and Earnings of Men and Women in Kenya,” (with W. Milne) presented at the meetings of the Canadian Economics Association, Kingston Ontario, June 2, 1991.

“Urban and Rural Fertility Differentials in Kenya: An Econometric Analysis Using Micro Data,” (with W. Milne) presented at the meetings of the North American Regional Science Association, Boston Mass. November 10, 1990.

“Employer Appeals of Workers' Compensation Board Decisions: The Impact of Experience Rating,” (with B. Kralj) presented at the meetings of the Canadian Industrial Relations Association, University of Victoria, Victoria B.C., June 4, 1990.

“The Impact of Early Retirement Pensions on Employee Turnover: Evidence from The Ontario Public Service,” (with J. Pesando and M. Gunderson) presented at the meetings of the Canadian Economics Association, University of Victoria, Victoria B.C., June 3, 1990.

“Estimating the Impact of Desired Family Size on Fertility Behaviour: Preliminary Results for Kenya,” (with W. Milne) presented at the meetings of the Canadian Economics Association, Laval University, Quebec City, Quebec, June 4, 1989.

“Time Series Estimation of Fertility: Public Policy and the Opportunity Cost of Children,” (with W. Milne) presented at a joint session of the Canadian Economics Association and the Canadian Population Association, McMaster University, Hamilton, Ontario, June 5, 1987.