

University of Windsor

Scholarship at UWindor

Electronic Theses and Dissertations

Theses, Dissertations, and Major Papers

2003

Salary determination in the National Hockey League: The development of an equitable player compensation model.

Jess Charles. Dixon
University of Windsor

Follow this and additional works at: <https://scholar.uwindsor.ca/etd>

Recommended Citation

Dixon, Jess Charles., "Salary determination in the National Hockey League: The development of an equitable player compensation model." (2003). *Electronic Theses and Dissertations*. 3375.
<https://scholar.uwindsor.ca/etd/3375>

This online database contains the full-text of PhD dissertations and Masters' theses of University of Windsor students from 1954 forward. These documents are made available for personal study and research purposes only, in accordance with the Canadian Copyright Act and the Creative Commons license—CC BY-NC-ND (Attribution, Non-Commercial, No Derivative Works). Under this license, works must always be attributed to the copyright holder (original author), cannot be used for any commercial purposes, and may not be altered. Any other use would require the permission of the copyright holder. Students may inquire about withdrawing their dissertation and/or thesis from this database. For additional inquiries, please contact the repository administrator via email (scholarship@uwindsor.ca) or by telephone at 519-253-3000ext. 3208.

**SALARY DETERMINATION IN THE NATIONAL HOCKEY LEAGUE:
THE DEVELOPMENT OF AN EQUITABLE
PLAYER COMPENSATION MODEL**

BY

JESS CHARLES DIXON

A Thesis

**Submitted to the Faculty of Graduate Studies and Research
through the Department of Kinesiology
in Partial Fulfilment of the Requirements for
the Degree of Master of Human Kinetics at the
University of Windsor**

Windsor, Ontario, Canada

2003

National Library
of Canada

Bibliothèque nationale
du Canada

Acquisitions and
Bibliographic Services

Acquisitions et
services bibliographiques

395 Wellington Street
Ottawa ON K1A 0N4
Canada

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file Votre référence

ISBN: 0-612-82863-8

Our file Notre référence

ISBN: 0-612-82863-8

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

Canada

**SALARY DETERMINATION IN THE NATIONAL HOCKEY LEAGUE:
THE DEVELOPMENT OF AN EQUITABLE
PLAYER COMPENSATION MODEL**

© 2003 Jess Charles Dixon

ABSTRACT

*"The sports business and its labor relations are in the midst of a transition period, the outcome of which will have a significant impact on the future viability of professional sports in [North] America."
(Staudohar, 1996, p. 167)*

Nowhere else in North America is the performance of an employee so readily visible and so easily measured than in the sport of professional ice hockey (Banister, 1997). "Although the performance of professional athletes may be objectively measured and compared by the vast quantities of statistics compiled by sports analysts, controversy still surrounds whether their individual efforts justify their salaries" (Banister, 1997, p. 47). NHL salaries have become so disparate in recent years that it is quite common for certain 'marquee' players to earn 10-20 times the salary of other players competing on the same team (Banister, 1997). With 50% of the salary money being claimed by the top 10% of players (Hale, 1994), one must question the effectiveness of the current NHL compensation system in terms of its ability to distribute players' earnings in an objective and equitable manner.

This study utilized a modified Delphi methodology to elicit participation from a panel of 16 hockey experts in as to what variables should be important in determining the salary of a NHL forward. Based on these results, the researcher proposed a compensation model that is predicated upon the theoretical underpinnings of *Employee Equity*. The implementation of an objective and equitable means of determining a player's economic livelihood may have considerable implications for improved labour relations, cost-containment, competitive parity, and resultantly, fan support in the National Hockey League.

DEDICATION

To my mother and father who have inspired me to be the best
that I can be in my various educational and athletic pursuits.

I am forever indebted to you both!

ACKNOWLEDGEMENTS

It wouldn't be fair to go further without taking the time to thank my girlfriend, Elizabeth, for her continued patience and support over the course of this research endeavour and for being my biggest fan over the past several years. I also wish to thank my brother, Michael, who was instrumental in helping me come up with the initial research idea and providing me with a welcome ear when I needed it. Further, I wish to thank Dr. Boucher for all of his assistance and mentorship in seeing this project through to fruition. Thanks must also go out to Dr. Martyn for all of his time, vision, and technical expertise on this project and to Dr. Wellington for his critical analysis and viewpoint on the process.

I would also like to thank the following faculty members at the University of Windsor and Brock University who, in one way or another, and at one time or another, had a hand in bringing this research project together: Dr. Marge Holman, Dr. Gord Olafson, Dr. Jim Weese, Dr. Laura Cousens, Dr. Joanne MacLean, Dr. Lorne Adams, Dr. Maureen Connolly, and Dr. Vern Stenlund.

A special thanks must also be given to Professors Cheri Bradish, Cheryl Mallen and Debbie Boutilier who encouraged me to pursue a graduate degree in the first place and provided me with ongoing support during the process. It is also worth noting the input of the following individuals for their contributions, no matter how minimal: Bob DeWolfe, John Bower, Mr. and Mrs. Bobby Brown, Bob Wall Jr., Dr. Aubrey Kent, Wendy McCreary of the National Hockey League Alumni Association, Tracey Cordeiro and Marty McQuaig of the National Hockey League Players' Association, Fabio Del Rio, Andrew Tinnish, Dave Lazenby, Greg Kenesky, Roger Jongerden, Ian MacInnis, Sarah Garrett, and Bram Cotton.

It's only appropriate that I recognize those close friends and colleagues who made my experience at the University of Windsor a memorable one. While not intending to offend any others, I must pay a special tribute to Chris Gruchy and Andrew Marshall for all of their friendship and support over the years! In addition, I wish to thank Kirsty Spence for her ongoing support and encouragement of my academic pursuits.

Lastly, a special thanks must also be given to Grant and Heather Peel at TheNetNow who assisted me throughout my research by providing Webspace for the hosting of my research survey over the course of the last two and a half years. Your kindness and generosity are very much appreciated!

TABLE OF CONTENTS

ABSTRACT.....	iv
DEDICATION.....	v
ACKNOWLEDGEMENTS.....	vi
LIST OF TABLES.....	x
LIST OF FIGURES.....	xii
LIST OF APPENDICES.....	xiii
LIST OF ABBREVIATIONS.....	xiv
LIST OF OPERATIONAL DEFINITIONS.....	xv

<u>CHAPTER</u>	<u>PAGE</u>
I. BACKGROUND TO THE PROBLEM	
Introduction.....	1
Purpose of the Study.....	3
Justification for the Study.....	3
Limitations & Delimitations of the Study.....	9
II. REVIEW OF LITERATURE	
Equity Theory.....	13
External Equity.....	14
Internal Equity.....	24
Employee Equity.....	26
Relative Deprivation.....	27
Pay-for-Performance.....	31
Expectancy Theory.....	32
Performance Appraisal.....	33

III.	METHODOLOGY	
	Instrument.....	38
	Validity.....	40
	Reliability.....	41
	Selection of Experts.....	43
	Administration of the Modified Delphi.....	44
	Data Collection.....	46
	Data Analysis.....	50
IV.	RESULTS	
	Expert Participation.....	53
	Round One.....	54
	Round Two.....	87
	Round Three.....	97
V.	DISCUSSION OF FINDINGS	
	Summary of Expert Participation.....	111
	Model Construction.....	113
	Operationalizing the Model.....	115
	Convergence.....	117
	Practical Implications.....	119
	Recommendations for Future Research.....	121
	REFERENCES.....	124
	APPENDICES.....	140
	VITA AUCTORIS.....	249

LIST OF TABLES

<u>TABLE</u>	<u>PAGE</u>
Table 1 - Offensive Performance Variables - Round 1.....	57
Table 2 - Defensive Performance Variables - Round 1.....	62
Table 3 - Leadership Variables - Round 1.....	65
Table 4 - Robustness Variables - Round 1.....	69
Table 5 - Fan Appeal Variables - Round 1.....	73
Table 6 - Rookie Variables - Round 1.....	75
Table 7 - Superstar Variables - Round 1.....	78
Table 8 - Types of Goals - Round 1.....	82
Table 9 - Types of Assists - Round 1.....	84
Table 10 - Salary Factors - Round 1.....	86
Table 11 - Offensive Performance Variables - Round 2.....	88
Table 12 - Defensive Performance Variables - Round 2.....	89
Table 13 - Leadership Variables - Round 2.....	90
Table 14 - Robustness Variables - Round 2.....	91
Table 15 - Fan Appeal Variables - Round 2.....	91
Table 16 - Rookie Variables - Round 2.....	92
Table 17 - Superstar Variables - Round 2.....	93
Table 18 - Types of Goals - Round 2.....	94
Table 19 - Types of Assists - Round 2.....	95
Table 20 - Salary Factors - Round 2.....	96

Table 21	-	Offensive Performance Variables - Round 3.....	99
Table 22	-	Defensive Performance Variables - Round 3.....	100
Table 23	-	Leadership Variables - Round 3.....	101
Table 24	-	Robustness Variables - Round 3.....	103
Table 25	-	Fan Appeal Variables - Round 3.....	104
Table 26	-	Rookie Variables - Round 3.....	105
Table 27	-	Superstar Variables - Round 3.....	106
Table 28	-	Types of Goals - Round 3.....	107
Table 29	-	Types of Assists - Round 3.....	109
Table 30	-	Salary Factors - Round 3.....	110

LIST OF FIGURES

<u>TABLE</u>		<u>PAGE</u>
Figure 1	-	Equitable Compensation Model.....114

LIST OF APPENDICES

<u>Appendix</u>	<u>PAGE</u>
Appendix A - Article 9 - Entry Level Compensation.....	141
Appendix B - Article 12 - Salary Arbitration.....	147
Appendix C - Article 11 - Salary and Awards.....	159
Appendix D - Article 28 - Player Finish and other Monetary Awards.....	165
Appendix E - Exhibit 5 - Performance Bonuses.....	169
Appendix F - Stanley Cup Winners & Finalists.....	175
Appendix G - Summary of NHL Expert Profiles.....	180
Appendix H - Sample Cover Letter.....	182
Appendix I - Follow-up Letter.....	185
Appendix J - Modified Delphi Round One.....	188
Appendix K - Median and Mode Results.....	198
Appendix L - Sample NHL Game Report.....	204
Appendix M - Modified Delphi Round Two.....	218
Appendix N - Modified Delphi Round Three.....	229
Appendix O - Operationalization of Player Compensation Model.....	240

LIST OF ABBREVIATIONS

- **CBA** - Collective Bargaining Agreement
- **CGI** - Common Gateway Interface
- **FBI** - Federal Bureau of Investigation
- **GM** - General Manager
- **MLB** - Major League Baseball
- **NBA** - National Basketball Association
- **NFL** - National Football League
- **NHL** - National Hockey League
- **NHLPA** - National Hockey League Players' Association
- **RCMP** - Royal Canadian Mounted Police
- **SHARP** - Statistical Hockey Analysis Reporting Package (Leonard, 1994)
- **SQRA** - *Scientia quaestus res athleta* - Latin phrase for 'the athlete's quest for knowledge' (Diamond, 2000a)
- **SPC** - Standard Player Contract
- **URL** - Uniform Resource Locator
- **WHA** - World Hockey Association

LIST OF OPERATIONAL DEFINITIONS

Due to the specific technical nature of the game of ice hockey, the author determined that it was prudent to provide a list of definitions for terms that might be foreign to readers who are not familiar with the sport.

- **All-Rookie Team balloting** - "Voting for the NHL All-Rookie Team is conducted among the representatives of the Professional Hockey Writers' Association at the end of the season" (National Hockey League, 2002, p. 227).
- **All-Star Game Fan balloting** - the starting players for the NHL All-Star Game are selected by the fans on the basis of total number of votes cast in the NHL All-Star Fan Balloting program (Tredree, 2000).
- **All-Star Team balloting** - "Voting for the NHL All-Star Team[s] is conducted among the representatives of the Professional Hockey Writers' Association at the end of the season" (National Hockey League, 2002, p. 224).
- **Arbitration** - process by which an independent third party conducts a hearing on the matters in dispute and is authorized to issue a binding decision (Barnes, 1996).
- **Art Ross Trophy** - "An annual award to the player who leads the league in scoring points at the end of the regular season" (National Hockey League, 2002, p. 201).
- **Assist** - "An assist is awarded to the player or players (maximum of two) who touched the puck prior to the goal, provided no defender plays or possesses the puck in between" (National Hockey League, 2000, p. 13/1).
- **Bill Masterton Memorial Trophy** - "An annual award under the trusteeship of the Professional Hockey Writers' Association to the National Hockey League player who best exemplifies the qualities of perseverance, sportsmanship, and dedication to hockey. Winner selected by a poll among the 30 chapters of the Professional Hockey Writers' Association at the end of the regular season" (National Hockey League, 2002, p. 203).
- **Blowout**- "Performance any time the score difference is five goals or greater" (STATS, 2000, p. 563).
- **Bud Light NHL All Star Game MVP Award** - "Awarded to the player adjudged to be the Most Valuable Player in the NHL's Annual All-Star Game" (National Hockey League, 2002, p. 205).

- **Bud Light Plus-Minus Award** - “An annual award to the player, having played a minimum of 60 games, who leads the League in plus/minus statistics at the end of the regular season” (National Hockey League, 2002, p. 204).
- **Calder Memorial Trophy** - “An annual award to the player selected as the most proficient in his first year of competition in the National Hockey League. Winner selected in a poll by the Professional Hockey Writers’ Association at the end of the regular schedule” (National Hockey League, 2002, p. 201).
- **Captaincy** - being recognized as a particular team’s ‘Captain’ or ‘Alternate Captain’.
- **Cartel** - a group of independent clubs that collectively agree to coordinate decisions with regards to production, pricing, and marketing with the objective of maximizing their shared profits (Banister, 1997).
- **Central Scouting Bureau** - “NHL Central Scouting was first established prior to the 1975-76 season to provide a scouting and evaluation service for NHL member clubs” (Tredree, 2002, p. 5).
- **Club** - “a team in the National Hockey League” (NHLPA/NHL, 1997, p. 2).
- **Clutch** - “Performance in [overtime] and in the last 10 minutes of the 3rd period, when the score difference is zero or one goal (STATS, 2000, p. 563).
- **Coefficient of Variation** - “...expresses the standard deviation as a percentage value of the mean value” (Norušis, 2002, p. 87).
- **Collective Bargaining** - “...the process by which a group of workers of an industry [i.e., NHLPA] bargain or negotiate as a collective whole (unit) with the management [i.e., NHL owners] to determine the working conditions, benefits, and salaries of the industry” (Yasser, McCurdy, & Goplerud, 1997, p. 443).
- **Collective Bargaining Agreement (CBA)** - the legal document that prescribes the rules and regulations that define the relationship between two or more negotiating parties (ie., NHL and NHLPA) (Greenberg & Gray, 1998).

- **Commissioner** - individual who is essentially responsible for monitoring the daily operations of the league and its membership. Currently, the position of Commissioner (formerly, the President) is assumed by Gary Bettman. Previously employed by the National Basketball Association (NBA), Bettman was appointed by the Board of Governors to assume the general business operation of the league. His appointment came following the deposition of former league President, John Ziegler, when league owners sought new marketing initiatives for the league in June 1992. Following a brief tenure by Gilbert Stein, the former Vice-President, Bettman took over as Commissioner in February 1993 (Barnes, 1996).
- **Common Gateway Interface (CGI) scripts** - "A standard script for running programs on a server from a Web page. CGI programs (also called scripts) can be run independently and were designed to be external so they can run under various (possibly different) servers interchangeably. The most common CGI scripts found on the Web are programs that process the information a user enters on a form. For example, whenever you fill in information or choose from a list of radio button options on a Web page, you are most likely filling out a CGI form. Once you hit the 'submit' button, the form is sent to the server. There the form's output is handled by a CGI script, which will call on other programs as necessary (such as a database search engine or a mailer program)" (NetLingo, 2003a).
- **Compensation** - "...means any money, property, investments, loans, options or anything else of value, whether or not in cash, that a Club, or any entity or person owned by (wholly or partly), controlled by, affiliated with, or related to, a Club or any owner of a Club, agrees to or actually pays, grants, arranges for or provides to, or is obligated to pay, grant, arrange for or provide to, a Player, or is paid, granted, arranged for or provided to a third party at the request of and/or for the benefit of a Player, including but not limited to, Signing, Reporting and Roster Bonuses, Paragraph 1 Salary (base salary), Deferred Compensation, agents fees, amounts to be paid in respect of marketing, licensing and promotional arrangements, and any reimbursement of costs or expenses in excess of the amounts specified in this agreement" (NHLPA/NHL, 1997, p. 2).
- **Competitive Parity** - the provision whereby each and every club in the league "...has the opportunity of becoming a [Stanley Cup] contender over a reasonable cycle of years..." (*Philadelphia World Hockey Club, Inc. v. Philadelphia Hockey Club, Inc.*, 1972, p. 486).
- **Conn Smythe Trophy** - "An annual award to the most valuable player for his team in the playoffs. Winner selected by the Professional Hockey Writers' Association at the conclusion of the final game in the Stanley Cup Finals" (National Hockey League, 2002, p. 202).

- **Consensus** - the result of the process in a Delphi investigation whereby the individual opinions of an expert panel converge to form a reliable agreement regarding a specific subject matter.
- **Convergence** - the process by which the individual opinions of an expert panel in a Delphi investigation 'come together' for the purpose of achieving a reliable group consensus on a specific subject matter.
- **Defenceman** - "two players who make up a team's defensive unit. They usually are stationed in or near their defensive zone to help the goalie guard against attack; sometimes they lead an attack" (CNN/Sports Illustrated, 2001a).
- **Defensive Performance** - includes such variables as: plus / minus rating, total number of takeaways, total number of giveaways, total number of shots blocked, and Frank J. Selke Trophy voting.
- **Delphi Method** - originally developed in the 1950's by the Rand Corporation, involves the repeated individual questioning of legitimized experts to obtain a reliable consensus on a specific subject matter (Dalkey & Helmer, 1963). Most often, the Delphi method or modifications of the technique are employed when the researcher is interested in forecasting the future of the subject matter in question (Hentges & Hosokawa, 1980). By maintaining the anonymity of respondents, the Delphi method eliminates many of the shortcomings of face-to-face interaction, and lessens the influences related to group dynamics.
- **Disparity** - refers to the economic discrepancies that exist between small- and large-market clubs as well as high and low income players within the NHL.
- **Employee Equity** - occurs when the 'referent other' has the same job and the same employer (Werner & Mero, 1999).
- **Entry Draft** - process by which NHL clubs take turns selecting eligible players in reverse order of league standings from the previous season, with some minor modifications for the First Round, to allocate new players to member clubs (NHLPA/NHL, 1997). For more information on the story behind the development of the NHL Entry Draft please refer to Diamond (2000b).

- **Equitable Compensation Model** - is the visual and mathematical depiction being proposed in this study that objectively, determines how the salary of a NHL forward should be determined. As previously proposed by Hale (1994), the proposed model serves as a league-wide wage scale, defined by position, and contingent upon performance, which, if adopted would not only help players' unions in fulfilling their statutory duty of fair representation, but would also eliminate wage competition, thus maximizing productivity and teamwork.
- **Equity** - exists when individuals perceive that their ratio of inputs to outputs is similar to that of a referent other (Cowherd, & Levine, 1992).
- **Equity Theory** - "...people in social exchange relationships believe that rewards should be distributed according to the level of individual contribution" (Cowherd & Levine, 1992, p. 303).
- **Even-strength** - performance when teams are playing with an equal number of players on the ice (ie., five on five, plus goaltenders) (CNN/Sports Illustrated, 2001a).
- **Executive Director** - individual who is essentially responsible for monitoring the daily operations of the NHLPA and its membership. The position of Executive Director is presently assumed by Robert W. Goodenow who was previously employed as a labour lawyer in Detroit, where he served as an agent for 28 players. Goodenow was originally hired as Alan Eagleson's deputy in 1990, and upon Eagleson's stepping down in 1992, Goodenow took over the reigns of the NHLPA (Staudohar, 1996).
- **Expectancy Theory** - individuals are motivated to perform based on two expectancies: (1) that a given performance will lead to desired outcomes; and (2) that effort exerted will lead individuals toward the desired performance (Vroom, 1964).
- **Experience (Career Games)** - the total number of games played in the NHL over the course of a player's career.
- **Experience (Career Years)** - the total number of years (seasons) played in the NHL over the course of a player's career. For the sake of this study, a player receives credit for playing in a season if he has played in a minimum of one game in a given season.
- **Experience (Games Played)** - the total number of games a player has played in during the previous NHL season. "A player receives credit for playing in a game if: i) he steps on the ice during time played or; ii) serves any penalty" (National Hockey League, 2000, p. 13/1).

- **Experience (Ice Time)** - the average amount of on-ice playing time that a player receives per game during the past NHL season (measured in minutes and seconds).
- **External Equity** - exists when the 'referent other' holds the same position under a different or competing employer (Werner & Mero, 1999). With the exception of the seven year stint between 1972-79 when the WHA provided direct competition for NHL talent, external equity does not exist for NHL players.
- **Face-off** - "the method of starting play when an official drops the puck between the sticks of two opposing players standing one stick length apart with stick blades flat on the ice. Also used to begin each period or to resume play when it has stopped for other reasons" (CNN/Sports Illustrated, 2001a).
- **Face-off Winning Percentage** - Defined as the rate at which a particular player is successful in winning the face-off and thus gaining possession of the puck for his team. It is calculated as "the number of faceoffs won divided by the total number of faceoffs" (Nashville Predators, 2003).
- **Fan Appeal** - includes such variables as: All-Star Game fan balloting, and number of career All-Star Game Starting line-ups.
- **Fighting Major** - "a major penalty which occurs when two or more players drop their sticks and gloves and fight. If a referee deems one player to be the instigator, that player gets a game misconduct; the minor penalty for a less severe pushing and shoving fight is called roughing" (CNN/Sports Illustrated, 2001b).
- **Forward** - "the center and right and left wings; who make up the attacking line or forward line of the team" (CNN/Sports Illustrated, 2001a).
- **Frank J. Selke Trophy** - "An annual award to the forward who best excels in the defensive aspects of the game. Winner selected in a poll by the Professional Hockey Writers' Association at the end of the regular schedule" (National Hockey League, 2002, p. 202).
- **Free Agency** - the process by which a free agent player offers his services, at will, to any other club (Barnes, 1996).
- **Free Agent** - any "...player whose contract is no longer exclusively held by one club" (Banister, 1997, p. 344).

- **Game Star Points** - “At the conclusion of every NHL contest, the game’s top three players are chosen (generally by the media). This [measure] is the sum total of all the Game Stars a player receives during a season, weighted by five points for being selected the First Star, three points for being selected the Second Star, and one point for being selected the Third Star (STATS, 2000, p. 563).
- **Game-tying** - performance pertaining to “the final goal in a tie game” (National Hockey League, 2000, p. 13/1).
- **Game-winning** - performance pertaining to “the goal which leaves the winning Club one goal ahead of its opponent” (National Hockey League, 2000, p. 13/1).
- **Giveaway** - “...when a player’s own actions result in a loss of puck possession to the opposing team. When a player deliberately shoots the puck into the opponent’s end, the play is not counted as a giveaway” (Nashville Predators, 2003).
- **Goal** - “A goal is awarded to the last player on the scoring Club to touch the puck prior to entering the net” (National Hockey League, 2000, p. 13/1).
- **Goalie / Goaltender** - “the heavily-padded player who guards the goal and prevents opponents from scoring by stopping the puck by any means necessary” (CNN/Sports Illustrated, 2001a).
- **Hart Memorial Trophy** - “An annual award to the player adjudged to be the most valuable to his team. Winner selected in a poll by the Professional Hockey Writers’ Association in the 30 NHL cities at the end of the regular season” (National Hockey League, 2002, p. 201).
- **Hit** - “...any legal contact from one player on an opposing player that exerts enough force as to prevent the player from controlling the puck, knocks him off the puck, or significantly impedes his progress” (Nashville Predators, 2003).
- **Holding** - when a player holds an opponent or an opponent’s stick by using his hands, arms or legs which results in a minor penalty being assessed (National Hockey League, 2001).
- **Hooking** - “...the act of using the stick in a manner that enables a player to restrain an opponent” (National Hockey League, 2001, p. 115) that results in a minor or major penalty being assessed.
- **Inequity** - exists when there is a perceived imbalance with respect to an individual’s inputs and outputs which often results in a state of dissonance or tension (Ambrose & Kulik, 1999).

- **Input** - includes all factors that may influence the quality of an individual's job performance (Werner & Mero, 1999). In the case of a typical NHL player, inputs would include such factors as a player's experience, point production, and penalty minutes.
- **Internal Equity** - exists when the 'referent other' holds a different position under the same employer (Werner & Mero, 1999). Internal equity in the NHL only exists on a unilateral basis specific to each position; otherwise referred to as employee equity (Werner & Mero, 1999).
- **James Norris Memorial Trophy** - "An annual award to the defence player who demonstrates throughout the season the greatest all-round ability in the position" (National Hockey League, 2002, p. 201).
- **King Clancy Memorial Trophy** - "An annual award to the player who best exemplifies leadership qualities on and off the ice and has made a noteworthy humanitarian contribution in his community" (National Hockey League, 2002, p. 204).
- **Lady Byng Memorial Trophy** - "An annual award to the player adjudged to have exhibited the best type of sportsmanship and gentlemanly conduct combined with a high standard of playing ability. Winner selected in a poll by the Professional Hockey Writers' Association at the end of the regular schedule" (National Hockey League, 2002, p. 202).
- **Leadership** - includes such variables as: captaincy, experience (career years), experience (career games), experience (games played), experience (ice time), Lady Byng Memorial Trophy voting, Bill Masterton Memorial Trophy voting, and King Clancy Memorial Trophy voting.
- **Legitimized Expert** - are those individuals deemed to be an authority on the field undergoing investigation as a result of their heightened level of credibility as present and past NHL players, coaches, general managers, and referees.
- **Lester B. Pearson Award** - "An annual award presented to the NHL's outstanding player as selected by the members of the National Hockey League Players' Association" (National Hockey League, 2002, p. 202).
- **Lockout** - "...a work stoppage initiated by management" (Banister, 1997, p. 346), whereby an employer locks employees out of their place of employment to discourage union activity (Nickels, McHugh, McHugh, & Berman, 1994).

- **Major Penalties** - “a penalty called for more serious infractions of the rules. Usually results in five minutes in duration whether or not the non-penalized team scores” (CNN/Sports Illustrated, 2001b).
- **Maurice “Rocket” Richard Trophy** - “An annual award to the player finishing the regular season as the League’s goal-scoring leader” (National Hockey League, 2002, p. 204).
- **Minor Penalties** - “a penalty lasting two minutes. If the non-penalized team scores a power-play goal during this time, the penalty ends immediately” (CNN/Sports Illustrated, 2001b).
- **Monopoly** - exists when a particular market is exclusively controlled by one business entity (Moriarty, Holman, Brown, & Moriarty, 1993).
- **Monopsony** - exists when a particular market is dominated by one single buyer, or employer (Banister, 1997).
- **National Hockey League (NHL)** - founded in 1917 as an unincorporated, nonprofit association (*Vancouver Hockey Club Ltd. v. 8 Hockey Ventures Inc.*, 1987), whose mission, according to Article 2 of the constitution, is to develop the sport of hockey and promote the interests of its members (Barnes, 1996).
- **National Hockey League Players’ Association (NHLPA)** - “The NHLPA is a labour union whose members are the players of the NHL and whose mandate is to represent their interests” (National Hockey League Players’ Association, 2002). The NHLPA became officially recognized in 1967 “...as the exclusive bargaining representative of all present and future players employed as such in the league by the Clubs” (NHLPA/NHL, 1997, p. 7).
- **Negative Externalities** - exist when the actions of one party has a negative affect on the utility or production possibilities of another party outside of an exchange relationship (Li, Hofacre & Mahoney, 2001)
- **Offensive Performance** - includes such variables as: goals, assists, points, points per game, shots on goal, shooting percentage, total face-offs taken, and face-off winning percentage.
- **Opportunity cost** - The value of the best alternative not taken (Howard & Crompton, 1995).

- **Option Clause** - a "...provision which gives the club the unilateral right to renew the [player's] contract for a period beyond that to which the parties have expressly agreed" (Weistart & Lowell, 1979, p. 501).
- **Output** - the various forms of compensation that an employee receives in exchange for their labour (Werner & Mero, 1999).
- **Pay-for-performance** - a compensation system that is characterized by salary increases that are reflective of measurable improvements in performance over a given period of time (McShane, 1998).
- **Penalty** - "punishment of a player for a violation of the rules, resulting in the suspension from the game for a period of time [measured in minutes]. There are six types: minor, bench, major, misconduct, match and goalkeeper's penalties" (CNN/Sports Illustrated, 2001b).
- **Penalty-shot** - "a free shot awarded to a player who was illegally interfered with, preventing him from a clear scoring opportunity; the shot is taken with only the goalie guarding against it" (CNN/Sports Illustrated, 2001a).
- **Player of the Month** - "The NHL's Public Relations Department selects a Player of the Month during the course of the regular season" (National Hockey League, 2000, p. 9/1).
- **Player of the Week** - "The NHL's Public Relations Department selects a Player of the Week during the course of the regular season for the seven-day period from Monday through Sunday" (National Hockey League, 2000, p. 9/1).
- **Player Restraints** - the various mechanisms that professional sport leagues utilize to restrain the movement of players, which consequently restricts the economic livelihood of the athlete. The most popular schemes to be employed by the NHL are the *reserve clause*, the *option clause*, *free agency*, the *entry draft* system, and the *waiver draft* system (Pulver, 1991; Yasser, McCurdy, & Goplerud, 1997).
- **Plus/Minus Rating (+/-)** - "A player receives a 'plus' if he is on the ice when his Club scores an even-strength or shorthanded goal. He receives a 'minus' if he is on the ice for an even-strength or shorthanded goal scored by the opposing club. The difference in these numbers is considered the player's plus/minus statistic" (National Hockey League, 2000, p. 13/1).
- **Points** - "The sum of goals and assists" (STATS, 2000, p. 564).

- **Points Per Game** - ratio measure of the number of points accumulated by a player divided by the number of games played.
- **Power-play** - performance "...by a club while it has a manpower advantage due to an opponent's penalty (National Hockey League, 2000, p. 13/1).
- **'RADIO' Check Box** - "A small circle a user can click on to interact with material on a Web page. You usually see it on a form, next to each item in a list of options. Once you click on a radio button, a dark circle appears inside it, indicating that you have selected it. Radio buttons usually only allow you to select one item in a list (as opposed to more than one)" (NetLingo, 2003b).
- **Real-Time Scoring System** - "...implemented at the start of the 1997-98 season. The system was developed by IBM, based on a hockey scoring system prototype by SQRA, a company based in Sydney, British Columbia. In addition to recording traditional statistics such as goals, shots and penalties, the Real-Time Scoring System captures a new generation of statistics - face-offs, missed shots, blocked shots, giveaways, takeaways, hits and time on ice" (National Hockey League, 2000, p. 19/1). For more information on the story behind the development of the NHL Real-Time Scoring System please refer to Diamond (2000a).
- **Referee** - "the chief official in a hockey game, distinguished from the other officials by a red armband. He starts the game, calls most of the penalties and makes the final decision in any dispute. He is responsible for making sure the ice, the nets and the clock are in good condition" (CNN/Sports Illustrated, 2001a).
- **Referent Other** - "...a third party such as a co-worker, a teammate, or some other peer" (Ahlstrom, Si, & Kennelly, 1999, p. 184) with whom an individual compares and contrasts his/her inputs and outputs with (Werner & Mero, 1999).
- **Relative Deprivation** - used to describe individual "...reactions of relative (rather than absolute) dissatisfaction about one's fate when compared to similar others" (Alain, 1985, p. 740).
- **Reserve Clause** - gave a NHL club the exclusive right to renew a player's contract in perpetuity (Yasser, et al., 1997). In 1972, the reserve clause was deemed to be "...an illegal restraint of trade" (Barnes, 1993, p. 162), and was subsequently, replaced by the *option clause* and *free agency* in the 1974 CBA (Barnes, 1996).
- **Robustness** - includes such variables as: penalties in minutes, number of major penalties, number of minor penalties, number of fighting penalties, number of roughing penalties, number of hooking, holding or tripping penalties, and hits.

- **Rookie** - includes such variables as: draft selection, NHL Rookie of the Month selections, NHL All-Rookie Team balloting, NHL Central Scouting Bureau rating, and Calder Memorial Trophy voting.
- **Rookie of the Month** - “[t]he NHL’s Public Relations Department selects a Rookie of the Month during the course of the regular season” (National Hockey League, 2000, p. 9/1).
- **Roughing** - “...a minor altercation that is not worthy of a major penalty to either participant. (An altercation is a situation involving two players, with at least one to be penalized)” (National Hockey League, 2001, p. 147).
- **Salary Budget** - the cumulative sum of money that a NHL club has budgeted to spend on players’ salaries in a given season.
- **Salary Cap** - “...limits the amount of money that any team can spend on player compensation” (Banister, 1997, p. 346).
- **Salary Factors** - the various hypothetical constructs that are assumed to have an impact on the salary of a NHL forward. Within each factor there are numerous performance and non-performance variables that are responsible for objectively constructing and quantifying each individual factor.
- **Salary Variables** - the specific performance and non-performance measures used in objectively constructing each of the hypothetical salary factors.
- **Shooting Percentage** - “Divide the number of goals scored by the number of shots taken” (National Hockey League, 2000, p. 13/2).
- **Short-handed** - Performance by a club while it has a manpower disadvantage due to the assessment of a penalty (National Hockey League, 2000).
- **Shots Blocked** - the total number of times that a “...puck directed at the net with the intent to score...is intentionally blocked or deflected by a defending player’s body or stick” (Nashville Predators, 2003).
- **Shot on Goal** - “If a player shoots the puck with the intention of scoring and if that shot would have gone in the net had the goaltender not stopped it [statistically recognized as a save], the shot is recognized as a ‘shot on goal’” (National Hockey League, 2000, p. 13/2).
- **Shooting Percentage** - “Divide the number of goals scored by the number of shots taken” (National Hockey League, 2000, p. 13/2).

- **Standard Player Contract (SPC)** - "...a contract put together by the union for the players and representatives of the owners...[which] define[s] the role between the player and the organization played for, ...[as well as] obligations to the league" (Blake, Fixter, & Moriarty, 1993, pp. 304-305).
- **Statistical Hockey Analysis and Reporting Package (SHARP)** - a real-time data base management system that has been developed with the intention of assisting NHL clubs in capturing first, second, and third generation game statistics and reporting them in a manner which coaching and management can understand and utilize in making informed decisions regarding player personnel (Leonard, 1994).
- **Superstar** - includes such variables as: All-Star team balloting, Bud Light NHL All-Star Game MVP Award selection, NHL Player of the Week selections, NHL Player of the Month selections, Game Star Points, Hart Memorial Trophy voting, Conn Smythe Trophy voting, and Lester B. Pearson Award voting.
- **Takeaway** - "...occurs when pressure from the defending team results in a defending player gaining possession of the puck" (Nashville Predators, 2003).
- **'TEXTAREA'** - section of a Web Form where users have the opportunity to enter textual information which can then be submitted to the Internet service provider.
- **Tripping** - the act of a player placing "...his stick or any portion of his body in such a manner that it shall cause his opponent to trip and fall" (National Hockey League, 2001, p. 157) that results in a minor or major penalty being assessed.
- **Strike** - "...a work stoppage initiated by labour" (Banister, 1997, p. 346) whereby employees deliberately refuse to perform the duties of their employment contract in support of the union's demands for improvements in working conditions (Nickels, McHugh, McHugh, & Berman, 1994).
- **Uniform Resource Locator (URL)** - "...is the address of a Web site or page to which you want to travel" (Carroll, Broadhead, & Cassel, 1999, p. 98).
- **Vezina Trophy** - "An award to the goaltender adjudged to be the best at his position as voted by the general managers of each of the 30 clubs.... Until the 1981-82 season, the goalkeeper(s) of the team allowing the fewest number of goals during the regular season were awarded the Vezina Trophy" (National Hockey League, 2002, p. 202).

- **Waiver Draft** - process by which each club, prior to the beginning of the season selects 18 skaters and two goalies which they would like to protect; all additional players are placed on waivers where competing clubs may claim any of the available players as a means of ensure that the best playing talent remains in NHL and not in one of its many minor league affiliates (Barnes, 1996).
- **Web Forms** - “A Web page that accepts user input. With an online form, you can usually input comments, order products, sign up for newsletters, or search information” (NetLingo, 2003c).
- **World Hockey Association (WHA)** - a North American professional hockey league that was established in 1972 along with twelve independent franchises which provided inter-league competition with the NHL for the talent pool of professional hockey players (Fischler, Fischler, Hughes, Romain, & Duplacey, 1994).

SALARY DETERMINATION IN THE NATIONAL HOCKEY LEAGUE: THE DEVELOPMENT OF AN EQUITABLE COMPENSATION MODEL.

CHAPTER I - BACKGROUND TO THE PROBLEM

Introduction

Nowhere else in North America is the performance of an employee so readily visible and so easily measured than in the sport of professional ice hockey (Banister, 1997). “Although the performance of professional athletes may be objectively measured and compared by the vast quantities of statistics compiled by sports analysts, controversy still surrounds whether their individual efforts justify their salaries” (Banister, 1997, p. 47).

Prior to 1990, players’ salaries in the National Hockey League (NHL) remained classified, whereby only those parties involved in the negotiation process were aware of the player’s salary and the factors that were considered in determining this figure (Longley, 1995). As a result, player representatives had little basis for comparison in estimating a player’s economic value relative to other players in the league. By keeping players’ salaries classified and isolated from public scrutiny, NHL owners were able to keep players’ salaries well below standards that were being established in other professional sports (Bartlett, 1993).

Such efforts on the part of NHL owners have resulted in salaries that are extremely disparate across the league.

The monetary interests of a few highly paid, ‘big name’ players have long been pitted, by general managers and player personnel directors, against the more modestly paid, lesser known players who make up the vast majority of individuals seeking to perform in professional team sports. (Hale, 1994, p. 123)

NHL player salaries have become so disparate in the past two decades that it is quite

common for certain 'marquee' players to earn 10-20 times the salary of other players competing on the same team (Banister, 1997).

Since 1991, considerable progress has been made with respect to the compensation of professional hockey players. In fact, the average salary in the NHL has climbed from \$271,000 in 1990-91 to approximately \$1.76 million in 2002-2003 (Brender, 2002) (all figures are stated in US dollars). Although the average income of the United States population increased 147% during this time period (US Census Bureau, 2002), this figure pales in comparison to the 650% increase accrued by NHL players. As impressive as this statistic may seem, "it must be noted that average salaries can be skewed by the relatively few large salaries at the high end of the range and do not reflect the distribution of compensation to the players union membership as a whole" (Hale, 1994, p. 127). With 50% of the salary money being claimed by the top 10% of players (Hale, 1994), one must question the effectiveness of the current NHL compensation system in terms of its ability to distribute players' earnings in an objective and equitable manner.

Perhaps, one of the most important factors contributing to the levelling of NHL salaries has been the disclosure of player earnings which was agreed to by the National Hockey League Players' Association (NHLPA) in 1989 (Bartlett, 1993). Although this collective agreement has played a significant role in reducing the inequity that exists within the league's salary structure, the manner in which salaries are determined remains a very subjective and, in some cases, unjust process. The disclosure of player earnings, along with the measurability of individual performance, has provided an ideal setting for researchers to investigate equity theory as it pertains to the NHL labour market.

Purpose of the Study

The purpose of this study was to develop a compensation model which will provide equitable and objective measures for determining the variables that factor into a NHL player's salary. With the assistance of legitimized experts, the researcher was able to identify what factors are considered significant in determining a player's worth.

Justification for the Study

As acknowledged by McCallum (1994), the key to labour peace and fiscal sanity is the same in all major professional sports leagues: cooperation between labour unions and management. In the NHL, constant battles over issues ultimately relating to the leagues' salary structure have helped to create an atmosphere of distrust between players and owners. Arguably, one method of reinstating this trust between these two grieving parties is the development of an equitable compensation model that objectively rewards players based on their individual contributions toward the club's success.

In specifically addressing the labour unrest in professional sports, Hale (1994) suggested that the implementation of a league-wide wage scale, defined by position, and contingent upon performance, would not only help players' unions in fulfilling their statutory duty of fair representation, but would also eliminate wage competition, thus maximizing productivity and teamwork. With a view to achieving these ends, the current study has taken Hale's (1984) proposition one step further by developing such a model.

This research study is foundational in that it is the first to investigate employee equity in the NHL. As the review of literature will suggest, although positive steps have been taken by players and management to address the labour situation in the NHL during the 1990's,

employee equity, in terms of player salaries, does not exist in the NHL. This study not only attempts to validate this statement, but also provides a framework by which employee equity may be achieved in the future. By developing an equitable compensation model that objectively compensates players based upon their individual contributions toward the club's success, it may be possible to alleviate the tension that has developed between the NHL owners and the NHLPA over the past decade. If owners and players could come to some general agreement on how salaries in the NHL are determined, the stage would be set for a more cooperative atmosphere in negotiating other significant labour issues.

Prior to 1991, club owners and the NHLPA had maintained a relatively congenial and compliant working relationship. Upon the inception of the NHLPA in 1967, Alan Eagleson was appointed the Executive Director. Under Eagleson's leadership, the NHLPA was non-litigious and conservative in its bargaining (Barnes, 1996). Some have gone so far as to suggest that during his tenure "...the players were considered the lackeys of the owners" (Wulf, 1992, p. 32). Following the commission of a study of Eagleson's general business practices by the NHLPA in 1989, and subsequent inquiries by the Law Society of Upper Canada, the Royal Canadian Mounted Police (RCMP), the Federal Bureau of Investigation (FBI), and an American Grand Jury, Eagleson resigned from his position in early 1991 (Barnes, 1996). At this point in time, Robert W. Goodenow, former player agent and labour lawyer from Detroit, was elected to succeed Eagleson and wasted very little time in asserting the players' discontent regarding the labour situation in the NHL.

Since the time of this transition in leadership, disagreements between owners and players have resulted in a number of labour disputes. The adversarial relationship that

developed between owners and players throughout this 'decade of disagreement' has been exhibited by players' strikes and owner lockouts. Although such manifestations have been relatively commonplace in other major professional sports, when Goodenow served notice of the players' intention to strike on April 1, 1992, it was the first in the NHL's 75 year history.

In May 1991, the NHLPA issued notice terminating the Collective Bargaining Agreement (CBA) with NHL owners effective September 15, 1991. Play in the NHL continued in hopes of reaching an agreement between member organizations and the players' association. Negotiations during this time were primarily concerned with free agency, financial benefits, and the salary arbitration system (Barnes, 1996). A particular issue being addressed by the players' was the allocation of more than \$16 million in revenue from trading cards (Wulf, 1992). The two sides were reportedly near an agreement on free agency, pension benefits, and gains in arbitration procedures, but were having difficulty coming to an agreement on the trading card issue. In other major North American professional sports, players received 75% of revenues from trading cards. Conversely, in hockey, players only received 67% that went directly to financing the NHLPA (Wulf, 1992). Owners were attempting to renegotiate their share of this revenue, while the NHLPA sought to retain their share.

After turning down an offer that was submitted by the owners in April 1992, players voted 560-4 in favour of going on strike, just ten days prior to the beginning of the 1991-92 playoffs (Barnes, 1996). The consequences of calling a strike at this time of year, which was the first in any professional sport, would have been costly, particularly for the owners (Wulf,

1992). Playoffs have traditionally been a very lucrative source of revenue for NHL owners.

While the players make only a maximum of \$25,000 in the playoffs, teams stand to lose about \$500,000 a game if the playoffs are wiped out. In the case of the [Detroit] Red Wings who own their own arena and concessions operation, the loss could be as high as \$16 million for a maximum of 16 home playoff games. (Wulf, 1992, p. 33)

After only a ten-day stoppage in play, the parties were able to settle upon a retroactive CBA that would cover 1991-93.

This agreement featured only minor changes in the player entry draft, free agency, and benefits, but the players were able to maintain their share of trading card revenues as well as achieving the desired changes in the salary arbitration process (Barnes, 1996). Although the players had not received significant gains from this agreement, Goodenow and the NHLPA were for the first time displaying a sense of tenacity that would prove to be adversarial to NHL owners in the future.

Approaching the end of the 1991-93 CBA, the NHLPA issued a termination notice in May 1993. With only sporadic negotiations occurring, the two sides agreed to continue play throughout the 1993-94 season without a labour agreement (Staudohar, 1996). When negotiations stalled, a confrontation erupted that resulted in the owners preemptive action of a lockout (Staudohar, 1996). The major issues being addressed in this round of bargaining were free agency, rookie salaries (see Appendix A), salary arbitration (see Appendix B), the standard player contract and various other financial benefits (see Appendix C) (Barnes, 1996).

Perhaps the most controversial issue addressed was the owners' proposal for the implementation of a salary cap. Traditionally, a salary cap

...limits the amount of money that any team can spend on player compensation. The owners argued that player salaries were too high for them to make a 'fair profit' on their investments and limits needed to be placed on their spending to ensure parity. (Banister, 1997, p. 346)

However, the application of a salary cap rule would also have prevented owners from bidding against each other for the services of the league's more talented players which, as a result, would have kept their salaries artificially low (Banister, 1997).

Specific to the NHL, the salary cap system that was being proposed would not only have served to control the player's escalating salaries, but would also have attempted to fund small market clubs through the implementation of an internal tax on payrolls that exceeded the league average (Barnes, 1996). The players opposed such a system as it would have had an adverse impact on salaries, and countered with a proposed tax that was based on the revenues of individual clubs (Barnes, 1996).

The parties inability to come to terms with the previously-mentioned salary cap or payroll tax system, resulted in the owners, represented by NHL Commissioner Gary Bettman, to institute a player lockout on October 1, 1994 (Barnes, 1996). As the negotiations pressed on into the month of December, a sense of urgency developed as Bettman and the owners declared that the season would have to be cancelled if the regular season schedule fell below 50 games (Barnes, 1996). Finally, on January 11, 1995, NHL owners and the NHLPA came to an agreement that would end the lockout after 103 days and the cancellation of 468 games (Staudohar, 1996).

When the league resumed play with a shortened schedule of 48 games, the players conceded in areas such as free agency and salary arbitration, while being successful in

convincing the owners to drop the payroll tax proposal (Barnes, 1996). This agreement, retroactive to 1993, remained in effect until September 15, 2000, and then remained in force on an annual basis unless either party gave written notice of termination under Section 3.1 of the CBA (NHLPA/NHL, 1997). Originally, this agreement, which was deemed to be the most important in NHL history (Pulver, 1991), could have been reopened for provisions at the end of the 1997-98 season. However, this clause was eliminated in 1995 in hopes of avoiding another work stoppage in 1998 (Staudohar, 1996).

Amidst all of the acrimony between players and owners regarding the economic and competitive health of the league, millions of hockey fans suffered the consequences of these work stoppages. As indicated by Banister (1997), the increased costs stemming from the renegotiation process are almost always offset by the fans. This view was echoed by Underwood (1984) who stated that:

It is the fans who pay when the ticket prices go up to support the massive payrolls. It is the fans who pay when the price of a hotdog jumps a buck, a parking spot rents for five, and the county commission votes a tax increase to build the entrepreneur a new stadium, complete with sky boxes and closed-circuit TV. (pp. 11-12)

What is more troubling than the plight of the loyal fan, is the large number of employees who found themselves out of jobs as a result of the 1994-95 hockey strike. Not only did the strike affect employees within the game of hockey, but it also impacted the local businesses that are dependent on the economic viability of the league (Rushin, 1994). A reformed model of player remuneration would alleviate the tension between NHL owners and the players thus reduce the negative externalities associated with these work stoppages.

Having both management and labour buy into such a model would be the most arduous task for proponents of this compensation model. While the model will make player salaries more equitable, it may significantly decrease the overall income of many marquee players in the NHL. On this same note, numerous players will receive an increase in salary as they will be paid relative to their objective inputs rather than their reputations or lack thereof. One must recall, that the model is limited in capacity to determining a player's base salary and does not delimit a player's ability to make additional income as a result of player finish (see Appendix D) or through various performance-based (see Appendix E) and signing bonuses. In addition, there are numerous endorsement opportunities that accompany the success of any marquee athlete which may be entertained to bolster a player's income.

Conversely, management would also benefit from the employment of such a model as it would provide the motivational stimulus necessary to have players perform to the highest of their ability while not feeling locked into long-term contracts with players who are indifferent performers at best. Furthermore, the equitable compensation model may also serve to limit the economic disparity that currently exists between small- and large-market franchises in the NHL.

Limitations & Delimitations of the Study

As with any other type of research, this study has a number of limitations that could contaminate the reliability and validity of the results. Limitations have been defined by Thomas and Nelson (1996) as "...possible shortcomings or influences that either cannot be controlled or are the results of the delimitations imposed by the investigator" (p. 57). The current study is not without its share of such influences.

The first limitation is inherently tied to the modified-Delphi methodology being used in this descriptive research study, in that the results only represent the perceptions of those experts sought to participate based on the auspices of the current NHL labour market and CBA. Accordingly, the specific results from this study, and the accompanying compensation model, cannot be generalized over time as the conditions of labour in the NHL are dynamic and changing on a daily basis. However, it is worth noting that the variables of the model can be altered and manipulated to more accurately accommodate the wants and needs of the labour market as they change through time. As long as NHL players are compensated in a manner that is consistent for all members of the labour force, equity will be achieved.

Secondly, response error is always a concern in social research. Unfortunately, it was difficult to control for this limitation beyond the careful creation of the instrument. The review panel provided insight on this issue so that it could be addressed prior to administering Round One to the panel of experts. An additional concern for the researcher was that participants in this study, due to their professional obligations, may not have been able to devote sufficient time or thought in responding to the questions, thus influencing the authenticity of the results.

Furthermore, despite assurances of confidentiality in the cover letter, participants in this study may have been hesitant to provide candid responses due to the perceived consequences associated with the public availability of the final results. Although this limitation is not as much of a concern in Delphi investigations as it is in other forms of research studies, it is worth noting that such hesitation can affect the validity of the results.

An additional limitation to this study is that certain members of the NHL community might not share the same insight as those experts that were selected to partake in this research study. Although this limitation was addressed through the selection of the experts and the criteria by which they were deemed experts, people are still entitled to voice their opinions on this subject matter.

Lastly, given the adversarial climate that has materialized between players and management as the league nears the expiration of the current CBA, experts in this study may be fearful of the perceived consequences associated with the public availability of the final results. Although the expert participants were carefully selected by the researcher to ensure that their present livelihoods were not directly linked to the upcoming labour negotiations, some experts may have been cautious in sharing their true feelings on the topic of salary determination.

Delimitations, in contrast, have been described as the discretionary choices made by a researcher which may have an effect on the results of the research being performed (Kroll, 1971). As the primary delimitation in this study, the researcher elected to restrict the focus, with regard to employee equity, to the specific labour market of the NHL. Hence, while the methodology may prove useful, the results from this study should not be generalized to any other professional sport organization.

A further delimitation in this study was the decision of the researcher to exclude goaltenders and defencemen in the analysis to divert specific attention to the variables and factors that were deemed to be important in determining the relative worth of a NHL forward. In using such discretion, it is important that the results from this study are not

generalized to include these previously excluded members of the NHL labour market.

This study was also marked by several researcher-imposed discretions with regard to the selection of the experts. As an integral component to any Delphi investigation, the researcher must make cognizant decisions regarding what persons should serve on the expert panel. Although some prerequisites for participation in this study were established, it was ultimately the choice of the researcher to determine who should and should not participate in this study. Specifically, the researcher acknowledges that due to the professional obligations of many potential experts, further discretion was required in the recruiting process to increase the likelihood of their participation in the study. As a result, the researcher attempted to use experts who could be contacted in a convenient and timely fashion using a network of NHL hockey acquaintances.

Another delimitation that was inherent to this study was witnessed in the design of the survey. The numerous variables that were included in this study were selected and categorized by the researcher to form salary factors. These variables, although based on previous research in the sport of ice hockey, were ultimately selected by the researcher and are by no means exhaustive. In addressing the potential shortcomings of developing such a comprehensive list, respondents were furnished with the opportunity to add any additional variables or factors that could have been overlooked by the researcher in the First Round of questioning.

CHAPTER II - REVIEW OF LITERATURE

Equity Theory

Although the research is not extensive, there exists a limited number of studies that utilize the labour force of professional sports leagues to investigate various hypotheses related to salary determination in hockey (ie., Idson & Kahane, 2000; Jones, Nadeau, & Walsh, 1999; Jones, Nadeau, & Walsh, 1997; Jones & Walsh, 1988; Lavoie, 2000; Lavoie, 1989; Lavoie & Grenier, 1992; Lavoie, Grenier, & Coulombe, 1987; Longley, 1995; McLean & Veall, 1992), baseball (ie., Kahn, 1993a; Kahn, 1993b; Prinszino, 2000; Raimondo, 1983; Scully, 1974; Sommers & Quinton, 1982), and basketball (ie., Brown, Spiro, & Keenan, 1991; Buchanan, & Slottje, 1996; Frick, 1998; Wallace, 1988). Further studies have extended this research to examine employee equity but have limited their research to the sport of baseball (ie., Ahlstrom, Si, & Kennedy, 1999; Bretz, & Thomas, 1992; Duchon & Jago, 1981; Harder, 1991; Harder, 1992; Hauenstein, & Lord, 1989; Howard & Miller, 1992; Lord & Hohenfeld, 1979; Wann, Fortner, Schrader, & Rosenberger, 1997; Werner, & Mero, 1999). To date, there exists little, if any research that specifically addresses the labour force of the NHL from the standpoint of employee equity.

“Equity theory states that people in social exchange relationships believe that rewards should be distributed according to the level of individual contribution” (Cowherd & Levine, 1992, p. 303). Proponents of equity theory suggest that employees carefully examine their individual inputs and outputs on a comparative basis with a ‘referent other’ (Adams, 1963; Adams, 1965). Typically, an individual’s inputs would include all factors that may influence the quality of their job performance (Werner & Mero, 1999). In the case of a typical NHL

player, inputs would include such factors as a player's experience, point production, and even penalty minutes. Conversely, outputs are the various forms of compensation that an employee receives in exchange for their labour (Werner & Mero, 1999). NHL hockey players are most often indemnified with salaries, benefits, performance-related bonuses, as well as numerous intrinsic and extrinsic rewards such as election to the annual All-Star game, or receiving an individual award or trophy. Previous research in the domain of employee equity identifies three distinct types of equity: external equity, internal equity, and employee equity (Werner & Mero, 1999).

External Equity

External equity generally exists when the 'referent other' holds the same position under a different or competing employer (Werner & Mero, 1999). Generally speaking, individuals are not restricted to one single labour market for a particular job (Romanoff, Boehm, & Benson, 1986). As a result, general labourers are given the opportunity to compare and contrast their inputs and outputs with 'referents' from alternative labour markets. This is not the case for professional hockey players due to the rather specific nature of their vocation.

Athletes who are qualified to play a professional sport have invested many years in training and instruction to learn their craft. The athletic skills and knowledge acquired during this preparation by a professional athlete are in most cases very specific to their sport and are not readily transferable to other sports or employment situations.... Players who possess very specialized skills have limited employment opportunities, only a few employers require such skills. (Banister, 1997, pp. 340-341)

As a result of the limited employment opportunities that are available to professional hockey players, the NHL has often been scrutinized as being a *monopsony* (Banister, 1997; Barnes, 1996; Jones & Walsh, 1988). A monopsony exists when a particular market is dominated by one single buyer, or employer (Banister, 1997). This is precisely the case for professional hockey players. Although there are numerous alternative professional and semi-professional hockey leagues in operation throughout North America and Europe, the NHL is considered to be the pinnacle of professional hockey, and the ultimate goal of any aspiring hockey player.

Although there are 30 clubs currently competing within the NHL, numerous player restraints have been imposed by the league which play a significant role in bolstering the leagues' monopsonistic orientation. Player restraints are defined as the various mechanisms that professional sport leagues utilize to restrain the movement of players, which consequently restricts the economic livelihood of the athlete. The most popular schemes to be employed by the NHL are the *reserve clause*, the *option clause*, *free agency*, the *entry draft* system, and the *waiver draft* system (Pulver, 1991; Yasser, McCurdy, & Goplerud, 1997).

The *reserve clause*, in its most basic form, gave a NHL club the exclusive right to renew a player's contract in perpetuity (Yasser, et al., 1997). Under this foregoing model, "the standard player contract (SPC) incorporated an annual undertaking by the team to offer a new contract, which the player agreed to accept subject to negotiation of salary or salary arbitration determined by the league president" (Barnes, 1996, p. 173). As a result, players were left virtually powerless, and could either request a trade or retire from the NHL as

alternatives to accepting the proposed contract (Champion, 1993). Further complicating the issue, club owners withheld the right to release players or trade them to another club without their consent.

In *Philadelphia World Hockey Club, Inc. v. Philadelphia Hockey Club, Inc.* (1972), it was concluded that the reserve clause "...was an illegal restraint of trade; the NHL's control of the pool of playing talent was also castigated as monopolization" (Barnes, 1993, p. 162). Moreover, such monopolization and control of the market for major league players was deemed contrary to Section 2 of the Sherman Antitrust Act (1890). The Sherman Antitrust Act is the American equivalent to the Canadian Competition Act (1985), which states in Section 48 that:

Every one who conspires, combines, agrees or arranges with another person

(a) to limit unreasonably the opportunities for any other person to participate, as a player or competitor, in professional sport or to impose unreasonable terms or conditions on those persons who so participate, or

(b) to limit unreasonably the opportunity for any other person to negotiate with and, if agreement is reached, to play for the team or club of his choice in a professional league

is guilty of an indictable offence and liable on conviction to a fine in the discretion of the court or to imprisonment for a term not exceeding five years or to both (1974-75-76, c. 76, s. 15).

Subsequently, the reserve clause was replaced by the option clause and free agency in the 1974 CBA (Barnes, 1996). Collective bargaining can be operationally defined as "...the process by which a group of workers of an industry [i.e., NHLPA] bargain or negotiate as a collective whole (unit) with the management [i.e., NHL owners] to determine the

working conditions, benefits, and salaries of the industry” (Yasser, et al., 1997, p. 443). The CBA is the legal document that prescribes the rules and regulations that define the relationship between the negotiating parties (Greenberg & Gray, 1998).

The *option clause* is a “...provision which gives the club the unilateral right to renew the [player’s] contract for a period beyond that to which the parties have expressly agreed” (Weistart & Lowell, 1979, p. 501). Under the auspices of the option clause, club owners withhold the option to renew a player’s contract for a maximum period of one year at a stated percent increase over the prior year’s salary (Champion, 1993). Although this mechanism is similar in intent to the reserve clause, the option clause only permits a particular contract to be renewed once (Blake, Fixter, & Moriarty, 1993). Furthermore, under the present CBA, players have the ultimate choice of providing clubs with the option to renew the agreement for an additional year (Blake, et al., 1993). Consequently, the one year option that is currently employed by the NHL is not considered to be in restraint of trade (Barnes, 1996).

Once a player has played out his option, he becomes a *free agent* and can ultimately offer his services, at will, to any other club (Barnes, 1996). (Please note that ‘he’ and ‘his’ are being used to emphasize the fact that the NHL is similar to the other three major professional team sports in that, to date, they are exclusively male.) Thus, a free agent is simply defined as any “...player whose contract is no longer exclusively held by one club” (Banister, 1997, p. 344). The free agent compensation system that currently exists in the NHL was originally developed in the National Football League (NFL). In the NFL, free agency was curtailed by what has come to be known as the ‘Rozelle Rule’ which “...acted as a device in league constitutions which required teams signing free agents to compensate

the former clubs” (Blake, et al., 1993, p. 317). Similar to the ‘Rozelle Rule,’ free agency in the NHL has been subject to the terms and conditions of Article 10 of the CBA (NHLPA/NHL, 1997).

Article 10 identifies two general types of free agents (NHLPA/NHL, 1997). The first type, ‘unrestricted’ free agents, have the privilege of signing with any club without any concern for compensation being paid out to the player’s previous club (Bartlett, 1993). Conversely, ‘restricted’ free agents are often subject to the right of first refusal, draft compensation, or equalization payments on the basis that their previous club extends a qualifying offer (Barnes, 1996). Within these two general types of free agents, there are also several classifications. Each classification is categorized according to the type of equalization payment that a club would have to relinquish, in terms of available draft choices, in order to acquire the services of a free agent from another club (Pulver, 1991). According to by-law 9A, the purpose of equalization is to compensate a player’s previous club for the loss of the right to the player’s services (NHLPA/NHL, 1997).

Pulver (1991) stated that, “*prima facie*, player mobility via free agency exists in the NHL” (p. 56). Unfortunately, the system is seldom utilized due to the burdensome equalization payments that would have to be yielded by NHL clubs in order to obtain the rights to a free agent player (Pulver, 1991). In addition, when free agency is utilized, it appears to increase the likelihood that only large-market franchises will be in the financial position to employ the best talent in the league (Banister, 1997). This statement was reinforced by Pulver (1991) who stated that “...the lack of player mobility due to the present free agency system has eroded the competitive balance in the NHL. As a result, only a few

teams each year have a realistic chance at winning the Stanley Cup” (p. 66).

Arguably the most visible of all player restraints, the NHL *entry draft* is conducted annually to allocate new players to member clubs (Banister, 1997). According to the provisions of the current CBA, NHL clubs take turns selecting eligible players in reverse order of league standings from the previous season with some minor modifications for the First Round (NHLPA/NHL, 1997). At present, the NHL entry draft, which is conducted annually each June, consists of nine rounds. Once a player has been drafted, the club has the exclusive right to sign the player to a contract. As a result, no other club can hire a player that has been drafted by another club unless that club sells or trades away their exclusive rights to that player (Banister, 1997).

According to article 8.4 of the CBA, those eligible for the NHL entry draft are all players over the age of 19 with a few exceptions. For example, a player may elect to enter the draft at the age of 18. In the following instances, clubs are also not permitted to select:

1. a player on the reserve list of a club, other than as a try-out
2. a player who has been claimed in two prior entry drafts
3. a player who previously played in the league and became a free agent
4. a player age 21 or older who played hockey for at least one season in North

America when he was age 18, 19, 20. (NHLPA/NHL, 1997).

The NHL entry draft, although intended to increase parity within the league, is often deemed to be monopsonistic in nature (Cairns, Jennett, & Sloane, 1986). “When only one team, according to league rules, has the right to contract with a specific player, that team becomes a pure monopsony from the player’s perspective” (Banister, 1997, p. 339).

Article 13 of the CBA states that the annual pre-season *waiver draft* provides the opportunity for players' contracts to be redistributed throughout the league (NHLPA/NHL, 1997). The reasoning behind the waiver draft is that it "...prevents teams from loaning experienced players to the minor leagues without first offering their services elsewhere in the NHL" (Barnes, 1996, p. 183). In conducting the waiver draft, each club, prior to the beginning of the season must select 18 skaters and two goalies which they would like to protect. All additional players are placed on waivers in order that competing clubs may claim any of the available players according to the order of the last entry draft (Barnes, 1996). The waiver draft opens with one round limited to clubs that did not make the playoffs in the previous season.

Similar to the NHL entry draft, the pre-season waiver draft significantly restricts the amount of control that players have in determining where they earn their economic livelihood. Players who are not protected by their respective clubs during the waiver process, risk being transferred to another club within the NHL. Once claimed by another club, the player is required by the provisions set out in Article 13 to report to their new club subject to that club's payment of the negotiated waiver price (Barnes, 1996). Although the waiver draft is often deemed as being restricting, it is important to recall that the primary objective of the waiver draft is to ensure that the best playing talent remains in NHL and not in one of its many minor league affiliates.

It has been argued that in each of the previously discussed instances, player restraints have been unsuccessful in achieving parity within the league (Banister, 1997; Barnes, 1996). If parity is defined as the provision whereby each and every club in the league "...has the

opportunity of becoming a [Stanley Cup] contender over a reasonable cycle of years...” (*Philadelphia World Hockey Club, Inc. v. Philadelphia Hockey Club, Inc.*, 1972, p. 486), then one should be able to verify this by surveying the number of clubs that have won the Cup in recent years. Since the 1967-68 season, when expansion in the NHL commenced, only 13 clubs have won ‘Lord Stanley’s Cup.’ Moreover, only 21 clubs have made it to the Stanley Cup finals; eight of which being successful in previous or subsequent years (see Appendix F). Although there are numerous other confounding variables such as coaching, team cohesion, and the quality of talent in the entry draft which may contribute to such outcomes, an argument can still be made that the NHL is not able to achieve competitive balance. It may also be contended that player restraints in the NHL have been relatively ineffective in achieving the goal of competitive parity.

Critics of the NHL’s player restraint systems have often forecasted the need for a salary cap as a means of achieving the league’s goal of parity (Barnes, 1996; Pulver, 1991). In support of this notion, Pulver (1991) stated that “if the [NHL] were to adopt a less restrictive form of free agency it must also implement a system that will prevent the wealthiest team in the most lucrative markets from signing all of the highly regarded free agents” (p. 80). Although several attempts have been made at implementing such a salary cap system, nothing formal has been adopted by the league to date. The closest that NHL owners have been in negotiating a league-wide salary cap was during the collective bargaining process in 1995 when parties contemplated the adoption of a ‘payroll tax’ on the sixteen highest spending clubs in the league, with the revenues generated from the tax being redistributed to small market clubs (Staudohar, 1996). Such a system, if implemented, would

not only serve to control escalating salaries, but would also act as a means of revenue sharing (Staudohar, 1996).

In theory, a league-wide salary cap would place a ceiling on the amount of money that a club could spend annually on their player payroll (Barnes, 1996). However, in practice, a salary cap has proven to further restrain player mobility in other professional sports leagues, especially for marquee players who legitimately seek higher salaries (Briddle, 1988). This comes as a result of the limited number of clubs that could feasibly afford to pay these players while adhering to the limitations of the salary cap. In addition, “the cap creates an incentive for teams concerned about exceeding the cap’s maximum payroll limit to cut talented high-salaried reserve players and replace them with less talented players at lower pay” (Foraker, 1985, p. 177). In this sense, the goal of a competitively balanced league may be achieved at the risk of a measurable decrease in the overall quality of league play.

Player restraints, regardless of their composition, have traditionally been justified by NHL management as a necessary means of preserving competitive parity and thus, the economic viability of the league (Yasser, et al., 1997; Zeigler, 1987). Conversely, the players’ union often views the system as inhibiting, “...serving solely to limit player salaries, thus preserving club profits” (Yasser, et al., 1997, p. 449). These restraints of trade are commonly challenged under the conditions of Canadian and American competition and antitrust laws due to their monopolistic disposition.

The employment of such monopolistic schemes clearly suggests that the NHL, similar to all other professional sports, operates as a cartel (Barnes, 1996). In this instance, a cartel is simply defined as a group of independent clubs that collectively agree to coordinate

decisions with regards to production, pricing, and marketing with the objective of maximizing their shared profits (Banister, 1997). Some authors have taken this argument one step further to suggest that professional sports, including the NHL, are *bilateral* cartels. In supporting this latter argument, Adams and Brock (1997) contended that:

...professional sports are a textbook example of a bilateral cartel. A cartel of club owners exercises monopoly power in the product market and monopsony power in the input market. A cartel of unionized players countervails that monopsony power. These cartels confront each other in a love/hate, cooperation/conflict relationship. Neither is strong enough to exercise total dominance over the other. Rationality dictates a strategy of coalescing power to resolve the impasse created by countervailing power. Periodic contests over 'the division of the swag' may disturb their peaceful coexistence, but this must never be allowed to diminish the exercise of their combined power to exploit the community. (p. 722)

In summation, both the owner cartel (ie., NHL) and the player cartel (ie., NHLPA) share a vested interest in maintaining the viability of the bilateral cartel. Consequently, "...market control or market dominance in the product market serves not only the best interests of management but also the best interests of labour" (Adams & Brock, 1997, p. 722). Under normal capitalistic business conditions, government regulations would provide a means for controlling such monopolistic schemes (Barnes, 1996). However, "the unique status of...professional sports leagues helps them avoid many of the problems faced by cartels in other industries" (Banister, 1997, p. 331). Furthermore, the NHL functions as a private association, and as such, the courts are reluctant to scrutinize their actions "...except where the league activities are deemed to lack fundamental fairness, or are considered arbitrary and capricious" (Yasser, et al., 1997, p. 336).

Only once in the NHL's eighty-three year history has this monopoly power been challenged. In 1972, the World Hockey Association (WHA) was established along with twelve independent franchises which provided inter-league competition for the talent pool of professional hockey players (Fischler, Fischler, Hughes, Romain, & Duplacey, 1994). Such competition made way for a marked rise in salaries as franchise owners vied for the rights to the leagues' premier players. During this time, the average players' salary in the NHL increased from \$24,000 in 1971 to \$96,000 in 1977 (Barnes, 1996). The independent existence of the WHA finally ended in March 1979 when the NHL opted in favour of 'expansion' by adding four WHA clubs, the Edmonton Oilers, Winnipeg Jets, Quebec Nordiques and New England (Hartford) Whalers (Barnes, 1996).

With the exception of this seven year stint when the WHA provided direct competition for NHL talent, external equity does not exist for NHL players. Although some comparisons can be made between the compensation levels of athletes from various different professional sports (ie., Major League Baseball, National Basketball Association, National Football League), the ratio of inputs to outputs cannot be adequately tabulated across different sporting disciplines. In addition, the economic composition of each professional sport (ie., broadcast rights and revenue sharing) plays a significant role in determining players' salaries.

Internal Equity

Internal equity, on the contrary, is concerned with 'referent others' who have a different job but the same employer (Werner & Mero, 1999). In reference to the NHL, internal equity would require a professional hockey player to compare and contrast their

inputs and outputs with a 'referent other' (ie., teammate) who plays a different position. For example, the measurement of internal equity may require a player who plays a forward position to compare his ratio of inputs and outputs with that of a goaltender. At the outset this may seem like a reasonable 'referent other' to compare such critical information with, after all, they are both employed by the same monopsonistic employer, that being the National Hockey League. However, because each of the 'referents' contribute to their respective clubs in an different manner, it is clearly difficult to weigh each players' contributions in a fair and objective manner. In considering equity, it is essential for individuals to make comparative judgements based on equivalent input and output variables.

In typical organizational settings, internal equity can be monitored through the employment of job-evaluation methods (Romanoff, et al., 1986). Such job-evaluations are often subjective, as they are contingent on the judgement of management for their accuracy (Meyer, 1975; Romanoff, et al., 1986). Since contract negotiations in the NHL are very much reliant on human decision making, the inherent subjectivity, makes it a very imprecise method of determining the economic livelihood of a professional hockey player. Ultimately, salary decisions are made by the General Manager (GM) of the prospective NHL club. In determining a player's worth, each GM must consider a multitude of performance and non-performance variables in evaluating a player's contribution to the organization. Above and beyond the performance and non-performance variables, GM's must also take into consideration additional intangible variables that can be used in determining the value of a particular player. Unfortunately, these variables are not very well-documented or consistent across the league. As a result, salaries are determined in a very indiscriminate manner from

club to club.

Further, it is extremely difficult to objectively quantify the contributions of a single employee on achieving the strategic and operational goals of the organization (Bradt, 1991). Even in the NHL, it is quite complicated to determine the direct impact an individual player has on the club's overall success. Frick (1998) supported this hypothesis by stating that "...the individual player's contribution to output (wins and/or revenues) cannot be measured accurately even though his 'productivity' (scoring and defensive behaviour) can be easily assessed" (p. 10). Ultimately, it is the consolidation of players' inputs that determines the relative success or failure of the club.

The NHL maintains an extensive database of statistical information by which a player's inputs can be compared and contrasted that are specific to each position. For the most part, forwards are remunerated based on their offensive performance while defencemen and goaltenders are rewarded on their defensive merit. Obviously, there are exceptions to this general rule. As a result, internal equity in the NHL only exists on a unilateral basis specific to each position. This type of equity is otherwise referred to as employee equity (Werner & Mero, 1999).

Employee Equity

Employee equity occurs when the 'referent other' has the same job and the same employer (Werner & Mero, 1999). Some authors have gone so far as to suggest that employee equity is of greater concern to employees than either of the two previously-mentioned forms of equity: "...the most important compensation decisions are those that differentiate between the pay received by individuals within the company who are

performing the same job” (Romanoff, et al., 1986, p. 20). Although many of the same difficulties of measuring internal equity arise when measuring employee equity, researchers can take advantage of using similar performance and non-performance variables in conducting their investigations.

For this precise reason, it was determined *a priori* that this study would exclude the analysis of goaltenders and defencemen in order to concentrate on the relative inputs and outputs of NHL forwards. This decision appears to be consistent with those made by researchers who have conducted equity research using the labour force of Major League Baseball (MLB) players (Ahlstrom, et al., 1999; Bretz & Thomas, 1992; Duchon & Jago, 1981; Harder, 1991; Harder, 1992; Howard & Miler, 1993; Lord & Hohenfeld, 1979). In each instance, pitchers, due to their disparate contributions to club success and performance measures, are excluded from the research. Likewise, the contributions and performances of goaltenders and defencemen are quite different from those of NHL forwards, thus necessitating their exclusion in this study. In making the decision to exclude goaltenders and defencemen from this analysis, the researcher readily acknowledges the significant role that these players have in determining the success of a NHL hockey club.

Relative Deprivation

Equity theory has been deemed by some (Bernstein & Crosby, 1980; Werner & Mero, 1999) to be consistent with the theory of relative deprivation in that individuals compare and contrast their personal conditions with those in a similar context. The term relative deprivation which was originally coined by Stouffer, Suchman, DeVinney, Star, and Williams (1949) has been appropriately used to describe individual “...reactions of relative

(rather than absolute) dissatisfaction about one's fate when compared to similar others" (Alain, 1985, p. 740). Whereas equity theory is predicated upon the ratio between inputs and outputs, the theory of relative deprivation discounts the role of inputs in legitimizing one's discontent with his or her employment conditions.

Although various models of relative deprivation exist (Davis, 1959; Gurr, 1970; Runciman, 1966; Williams, 1975), perhaps the most comprehensive model of this theory was proposed by Crosby (1976). In her model, Crosby (1976) suggested that there are five preconditions that lead to an individual's feeling of relative deprivation: *wanting*, *social comparison*, *feelings of deservingness*, *future expectations*, and *no self blame*. In order for someone to feel relatively deprived, that person must have a certain *want* or need that is not being fulfilled. In addition, that person must be in a position to *compare* themselves with someone in a similar social standing who possess what is being desired. Furthermore, Crosby contended that the deprived individual feels that he or she is entitled to, or *deserving* of what is being desired. Moreover, the deprived individual must feel that it is feasible to attain that which is desired in the *future*. Lastly, Crosby suggested that the final precondition for relative deprivation is that the deprived individual does not *blame* him or herself for being incapable of realizing what is being desired.

In an attempt to provide empirical support for Crosby's model of relative deprivation in an applied setting, Alain (1985) resolved that "when workers ... are asked about their jobs, their feelings of dissatisfaction, frustration, etc. are accurately predicted by the pre-requisites hypothesized by Crosby's model" (p. 747). These feelings of dissatisfaction and frustration, are similar to the consequences of perceived inequity. Based on the tenets of equity theory,

inequitable comparisons of inputs and outputs often results in a state of dissonance or tension that often instigates behaviour designed to relieve this strain (Ambrose & Kulik, 1999).

Generally, individuals can reduce the distress caused by inequity in one of three ways: one can cognitively distort his or her perceptions of their own inputs and outputs or those of the 'referent other'; the individual can alter their actual inputs or outcomes in an effort to restore equity; and, in extreme cases, the individual can withdraw from the inequitable situation altogether (Cowherd & Levine, 1992; Dittrich & Carrell, 1979; Huseman, Hatfield, & Miles, 1985; Werner & Mero, 1999). Relating specifically to the performance ramifications of inequity, research suggests that unfavourable work attitudes and behaviour such as absenteeism (ie., Dittrich & Carrell, 1979), illness (ie., Sashkin & Williams, 1990), and employee turnover (ie., Pfeffer & Davis-Blake, 1992; Telly, French, & Scott, 1971) are all precipitated by inherent inequity. In addition, illegal activity (ie., Glass & Wood, 1996; Greenberg, 1990) has also been associated with employees who experience inequitable work environments. Perhaps of greatest concern to members of the NHL community is the lowered intrinsic motivation (ie., Carr, McLoughlin, Hodgson, & MacLachlan, 1996), increased selfishness (ie., Harder, 1992; Pfeffer & Langton, 1993), and poor on-the-job performance (ie., Andrews, 1967; Bretz & Thomas, 1992; Evans & Simmons, 1969; Hauenstein & Lord, 1989; Lawler & O'Gara, 1967; Lord & Hohenfeld, 1979; Pritchard, Dunnette, & Jorgenson, 1972; Summers & Hendrix, 1991) that is commonly exhibited by employees who are subject to inequity in the workplace.

Some have gone so far as to propose that there is a linear relationship between inequity and changes in performance (Werner & Mero, 1999). Moreover, it has been

suggested in the research that equity will influence three aspects of employee motivation: commitment to organizational goals, effort, and cooperation (Cowherd & Levine, 1992). Primarily, employees who believe that they are being treated in an unfair and inequitable manner will have a weaker commitment to the strategic goals of the organization (O'Reilly & Chatman, 1986). Secondly, "people who experience inequity are more likely to attempt to change their objective situations by decreasing their inputs [ie., performance] than by increasing their outcomes [ie., salary], because they typically have more control over inputs" (Cowherd & Levine, 1992, p. 307). Lastly, inequity has been known to foster interpersonal resentment which weakens the affiliative emotional bonds between employees, thus reducing their willingness to cooperate (Levine, 1991).

Regardless of the theoretical disposition, the behavioural consequences of inequity or relative deprivation can be detrimental to any organization. This is particularly true in the realm of professional sport where athletes and their actions are carefully scrutinized by fans, management, and mass media. Nonetheless, performance decrements as a result of inequity have been witnessed in studies involving free agent players in MLB (Bretz & Thomas, 1992; Hauenstein, & Lord, 1989; Lord & Hohenfeld, 1979; Werner, & Mero, 1999) and the National Basketball Association (NBA) (Harder, 1992). These researchers have often recommended that professional sport leagues consider re-structuring their current methods of compensation by adopting a performance-based reward system, thus decreasing the likelihood of performance decrements on behalf of underrewarded individuals (Harder, 1992).

Pay-for-Performance

Performance-based reward systems have long been advocated by management scholars as a justifiable method of compensating employees (Bradt, 1991; Harder, 1992; McShane, 1998; Meyer, 1975). “For any performance management system to be successful, it must tap into the key determinants of employee motivation” (Bradt, 1991, p. 76). Pay-for-performance is a compensation system that is characterized by salary increases that are reflective of measurable improvements in performance over a given period of time (McShane, 1998). Unlike several less traditional methods of employee compensation whereby employees are merely rewarded for remaining with the organization, pay-for-performance can be used to motivate employees to perform to the best of their abilities (Meyer, 1975).

Regardless of the apparent link between pay increases and improved performance levels, most organizations do not place as much emphasis on this method as management would like (Dyer, Schwab, & Theriault, 1976). Perhaps the most logical explanation for this is that salary administrators experience grave difficulty in governing pay-for-performance compensation systems (Meyer, 1975). In a typical pay-for-performance compensation system, employees’ salary increases are based upon the judgements of his or her supervisors. In making such judgements, employees accede that supervisors are capable of making objective and valid assessments of their individual contributions to organizational goals and objectives (Meyer, 1975). Pay-for-performance, particularly in unionized settings, has not been accepted as a valid system of compensation. Specific to the labour orientation of the NHL, this reality becomes apparent when players demonstrate a reluctance to subscribe to

pay levels that would be contingent upon the judgements of general managers.

Expectancy Theory

A theory that is closely associated with pay-for-performance compensation systems is Vroom's expectancy theory of motivation (1964). Basically, "expectancy theory assumes that people have well-defined preferences among various outcomes (rewards) of their actions, and they will adjust their efforts based on those expected outcomes" (Ahlstrom, et al., 1999, p. 184). More specifically, individuals are motivated to perform based on two expectancies: (1) that a given performance will lead to desired outcomes; and (2) that effort exerted will lead individuals toward the desired performance (Vroom, 1964).

The relationship between expectancy theory and equity theory has been the central theme of numerous studies involving free agent players in MLB (Ahlstrom, et al, 1999; Harder, 1991; Harder, 1992). In each study, these researchers have proposed that there exists a reciprocal relationship between equity theory and expectancy theory. While equity theory predicts that underrewarded employees may decrease their input levels in favour of restoring equity, expectancy theory forecasts that these same employees will increase their input levels in anticipation of future rewards. Important to note is the significantly different performance motivations that are suggested by these two theories.

Based on the results of a study, which exhibited a trade-off between the performance motivations of equity theory and expectancy theory, Ahlstrom, et al. (1999) contended "...that guaranteed contracts not substantially linked to performance might harm motivation" (p. 192). This observation reinforced a previous proposition set forth by Schuler and Jackson (1996), who argued that pay-for-performance is an effective motivational tool, and its

absence will have deleterious affects on productivity. In applying this argument to labour situations that rely heavily on the interdependence of individual performances (ie., ice hockey), Lazear (1989) suggested that rewards should be structured in such a way that they encourage cooperation and discourage competition among employees.

Performance Appraisal

In developing a performance-based reward system for the NHL, there is an inherent need to establish an equitable and reliable means of appraising the performance of a NHL forward. In reference to sport organizations in general,

performance appraisals determine the extent to which the individual employee and/or his work group are contributing to the overall purpose of the sport organization. More specifically, appraisals contribute to enhancing the effectiveness and efficiency of sport organizations by guiding management in making decisions about promotion, compensation, and the allocation of other forms of reward. (Slack, 1997, p. 242)

Although the industry of professional team sport relies heavily on the accurate evaluation of its employees (Libkuman, Love, & Donn, 1998), it is extremely rare to find validated measures of performance being utilized (Friend, 1991; Friend & LeUnes, 1987). This neglect may stem from the inherent difficulty in establishing appraisal criteria (MacLean & Zakrajsek, 1996).

Although previous research has been conducted on performance evaluation in the NHL, the emphasis of these studies have been limited to examining player performance as a means of making informed decisions regarding player recruitment, selection and/or drafting (Renger, 1992; Renger, 1994; Voyer & Wright, 1998). The need for enhanced performance appraisal systems in the sport of ice hockey sparked Leonard (1994) to develop a

sophisticated computer-generated statistical database management system to serve as the basis for evaluating player performance. The compilation of such statistical data, when utilized by club management, can be extremely beneficial in making strategic management decisions related to player recruitment and contract negotiations. However, in acknowledging the link between an effective performance evaluation system and managerial effectiveness, the previous research has not addressed a means for translating the proposed performance ratings into an equitable way of compensating players.

Typically, job performance has been defined in terms of the behaviours indicative of performing a job or, more often, the results of those behaviours (Chelladurai, 1999; James, 1973; Smith, 1976). Relying entirely on results- or task-oriented indicators of performance can be detrimental to the organization (Chelladurai, 1999; Landy & Farr, 1983). Equally important to establishing relevant task goals of a job is establishing relevant non-task goals which are complimentary to the specific task, yet integral to the effective fulfilment of the job in question (Astin, 1964; Chelladurai, 1999). In recognizing the need for establishing both task and non-task goals, the model being proposed accounts for both types of behaviours in appraising the performance of a NHL forward.

Far too often, coaches and GM's base their appraisals of athletic performance on 'gut reactions' (Love, 1989) or collective opinions (Friend, 1991). Unfortunately, these rather imprecise methods are found to be inferior to actuarial or statistical approaches (Dawes, Faust, & Meehl, 1989; Meehl, 1986). As such, the utilization of subjective evaluations can have numerous negative and costly repercussions, not the least of which being locked into an expensive long-term contract with a player who is performing below expectations

(Libkuman, et al., 1998).

According to Nickels, McHugh, McHugh, and Berman (1994), effective performance appraisals consist of six steps: *establishing performance standards, communicating those standards, evaluating performance, discussing results with employees, taking corrective action, and using the results to make decisions*. The primary step in implementing an effective performance appraisal is to *establish performance standards* against which employees can be evaluated. Such standards must be understandable, measurable, and reasonable from the viewpoint of both the employee and the employer (Nickels, et al., 1994). In this study, a panel of hockey experts will establish what measures of performance will be considered in the formation of the equitable compensation model, and league averages will serve as the standard by which player performance will be evaluated.

The second step in implementing an effective performance appraisal calls for management to *communicate these standards* to the employees. “Employees must be told clearly and precisely what the standards and expectations are and how they are to be met” (Nickels, et al., 1994, p. 485). As the binding legal document that prescribes the rules and regulations that define the working relationship between the NHLPA and the NHL (Greenberg & Gray, 1998), the league’s CBA would serve as the primary means of communicating such performance standards to NHL forwards. Furthermore, Slack (1997) contended that “...the effectiveness of a performance appraisal system is enhanced if it has the support of all the members of the organization” (p. 243). Having the proposed model written into the CBA would clearly indicate that the NHL community, as a whole, would be in support of the model.

Thirdly, Nickels, et al. (1994) called for the *evaluation of performance* based on the criteria and standards that have been set forth by management. In the current proposition, the evaluation of performance could be conducted on an annual basis prior to the beginning of the NHL season. At such time, the performance of a particular player could be compared with league averages from the previous year which could serve as the standards against which *all* NHL forwards could be evaluated. Moreover, employers would also be required to *discuss the results of the appraisal with employees* at this time, as prescribed by Nickels, et al. (1994). “Discussing an employee’s successes and areas that need improvement is an opportunity to be understanding and helpful and to guide the employee to better performance” (Nickels, et al., 1994, p. 485).

The fifth step in implementing an effective performance appraisal is *taking corrective action*, which would require the coach or GM to give corrective feedback so that the player may alter his behaviour in light of achieving higher performance ratings. Under normal conditions, this step would also require that GM’s consider revising the performance standards so that they may be more appropriate and realistic for the employee (Nickels, et al., 1994). However, the model that is being proposed in this study is designed in such a way that the performance standards for any given year are based on league averages from the previous year. As such, the standards by which NHL forwards would be appraised would be equitable in that *all* players would be evaluated using the same set of performance and non-performance criteria, and would be dependent on league-wide environmental conditions.

The final step to be proposed by Nickels, et al. (1994) called for *using the results to make decisions* regarding promotions, compensation, additional training, or in some cases

termination. In particular, this study proposes a model that will determine the base salary of a NHL forward relative to their annual performance appraisal. Employee compensation is arguably the single largest operating cost for NHL clubs, accounting for an estimated 72% of league revenues (Shoalts, 1999). "The long-term success of a firm - perhaps even its survival - may depend on how well it can control employee costs and optimize employee efficiency" (Nickels, et al., 1994, p. 486). The model being proposed in this study is foundational in that it provides an equitable and objective framework for evaluating the performance of a NHL forward as well as providing a means of translating this appraisal into a dollar figure that would represent the player's base salary. It is acknowledged that although the complete elimination of evaluation errors is somewhat idealistic, the application of valid methods of measuring performance should improve the quality of decision making in the determination of salaries (Libkuman, et al., 1998).

CHAPTER III - METHODOLOGY

Instrument

In order to collect data for this quantitative study, a modified Delphi survey method was chosen for its relative appropriateness in acquiring the information required to develop the equitable compensation model being proposed. The Delphi method, which was originally developed in the 1950s by the Rand Corporation, involves the repeated individual questioning of experts to obtain a reliable consensus on a specific subject matter (Dalkey & Helmer, 1963). The Delphi derives its label from the “Delphic Oracle” which, similar to the nature of this form of investigation, was used to look into the future (Delbecq, Van de Ven, & Gustafson, 1975). Most often, the Delphi method or modifications of the technique are employed when the researcher is interested in forecasting the future of the subject matter in question (Hentges & Hosokawa, 1980). However, the use of the Delphi has been broadened beyond forecasting to become a multi-use planning instrument which can assist in identifying problems, setting goals and priorities, and identifying alternative management techniques (Delbecq, et al., 1975).

Unlike other forms of group decision-making processes, the Delphi permits the researcher to solicit judgements on a particular topic from a group of experts in spite of geographic segregation. In addition to saving time and money as a result of eliminating travel, the Delphi method is more conducive to eliciting independent thought (Dalkey & Helmer, 1963). When using more conventional methods of group decision-making, such as round-table discussions, respondents are in direct contact with one another and personal opinions can easily be influenced by seemingly stronger or more dominant participants

(Delbecq, et al., 1975). By maintaining the anonymity of respondents, the Delphi method eliminates many of the shortcomings of face-to-face interaction, and lessens the influences related to group dynamics.

Specifically, there are a number of characteristics of group dynamics that can have negative consequences on group decision-making processes including: (1) the influence of psychological factors, such as specious interaction; (2) the unwillingness to abandon publicly expressed opinions; (3) the 'bandwagon effect' of majority opinion; (4) the inability to manage agreement or consensus, otherwise referred to as the 'Abilene paradox' or 'groupthink'; (5) evaluation apprehension, which is the reluctance to mention ideas because others may deem them to be insignificant or peripheral; as well as (6) the tendency for a group of people to make more extreme decisions than the average individual group member would make if doing so on their own, this is otherwise known as the 'risky shift phenomenon' or 'group polarization' (Harvey, 1988; Helmer, 1964; McShane, 1998). In avoiding these negative consequences, the Delphi method is extremely useful in situations where the parties involved may be adversarial, or where individual personalities would disrupt a face-to-face setting (Delbecq, et al., 1975).

As the previously discussed historical development of labour relations in the NHL might suggest, it would be extremely difficult to bring together NHL players and management for the purposes of this study without experiencing some consequence(s) of group dynamics particularly when the issue of debate is salary determination. By utilizing a modified Delphi method in this particular study, the researcher was able to obtain data that has been sheltered from the effects of group dynamics from both player and management

viewpoints. Such data could then be used to determine what variables and factors are deemed to be significant in determining the salary of a NHL hockey player.

Although the Delphi method of investigation has been demonstrated to be extremely valuable in forecasting a potential future for a particular subject matter, it is not without its shortcomings. Several problems with using the Delphi technique have been identified in the literature (Lindstone & Turoff, 1975; Sackman, 1975). In particular, Sackman (1975), in his review of 150 Delphi studies compiled over 200 criticisms of the Delphi method. Included among these criticisms are the neglect by investigators to meet accepted experimental standards in test design, subject sampling, reliability, validity, administration, interpretation of findings, and social utility (Sackman, 1975). While these are legitimate concerns for any researcher, it is nonetheless important to remember that Delphi studies are usually exploratory in nature. As such, they need to be evaluated with more latitude than would be expected in other, more traditional forms of research that lead to quantitative analysis.

Regardless of the methodological concerns that surround the use of the Delphi method, the researcher considered it to be the most logical means of acquiring the data needed to construct the model that has been developed in this study. The Delphi method is superior to other methods of group decision-making in that it gives experts the chance to independently evaluate information free from the effects of group dynamics.

Validity

Validity has been defined as the “degree to which a test or instrument measures what it purports to measure...” (Thomas & Nelson, 1996, p. 214). Prior to distributing the First Round of questioning, a panel of five sport management academicians and practitioners were

asked to review the questionnaire and comment on the clarity of the wording of the questions, the ease of answering questions, and finally the time that was required to complete the initial Round of the survey. This type of validity is often referred to as domain-reference validity (Thomas & Nelson, 1996). Additionally, this panel of experts was requested to provide any additional comments or suggestions that would improve the overall clarity of the instrument.

Due to the nature of the research being conducted, further measures of validity were assured through the selection of hockey experts who were asked to participate in the study. In conducting Delphi investigations, the validity of the study is linked to the relative credibility of the experts whose opinions are being sought. By including retired players, coaches, and referees as experts, the researcher was able to obtain a credible panel from which consensus could be reached on the factors that are significant in determining a player's worth as well as the extent to which each factor should influence the final value of a player's contract.

Reliability

Reliability is concerned with the internal consistency and dependability of the instrument being used (Kerlinger, 1986; Neuman, 1997). The reliability of an instrument is typically measured in one of three ways: *stability reliability*, *representative reliability*, and *equivalence reliability* (Neuman, 1997). The first type, *stability reliability* requires the researcher to examine the degree to which the instrument provides similar results over a given period of time (Kerlinger, 1986). A popular method among researchers is the *test-retest* method, which requires a test to be administered on one day and then repeated at a later

date so that the results can be compared for their level of consistency (Thomas & Nelson, 1996).

The second type of reliability, *representative reliability*, measures the consistency of the instrument across various subpopulations or groups of people (Neuman, 1997). A *subpopulation analysis* is normally used to determine whether or not an instrument has representative reliability. Subpopulation analyses involve the comparison of the instrument across different subpopulations or subgroups of the sample which are determined based on independent knowledge about the various subpopulations. The instrument is deemed to have representative reliability if there is little or no difference in the responses derived from the various subgroups (Neuman, 1997).

The third and final type of reliability, *equivalence reliability*, determines the extent to which multiple specific measures of the same construct will yield consistent results (Neuman, 1997). This type of reliability is required when multiple indicators are used in the operationalization of a construct. *Inter-rater reliability* is just one of the many ways of determining whether an instrument has this type of reliability. Typically, inter-rater reliability measures the degree to which different testers can obtain the same results using the same instrument (Thomas & Nelson, 1996).

Due to the continually changing environment of the NHL and the unique disposition of the modified Delphi investigation being conducted in this study, these types of reliability checks were somewhat impractical, and would have added little to this study. Although it would have been quite reasonable for the researcher to have conducted a test-retest measure of reliability during the First Round, the results would have become meaningless as the study

progressed through Rounds Two and Three as experts became motivated to reconcile their previous responses based on the input of other experts.

While other, more common forms of group decision-making discourages participants from altering their judgements over time, Delphi investigations encourage experts to be flexible with their opinions from one Round to the next. Performing a test-retest may actually have been detrimental to the process as it would have required the experts to complete yet another Round of questioning which may have detracted from their other responsibilities, thus limiting the priority that they placed on completing the subsequent Rounds of questioning. Similarly, a subpopulation analysis or an inter-rater reliability test would have been equally difficult to conduct due to the rather small number of experts that participated in the study and the diverse backgrounds and perspectives that each expert has relative to the subject matter.

With the intention of compensating for the inability to utilize more sophisticated methods of testing reliability, the researcher has made every effort to ensure that the instructions given to the experts on the questionnaire were written in a clear and standardized manner, thus reducing any uncertainties. Likewise, the numerous variables and factors that experts were required to rate within the questionnaire were written clearly and were accompanied by operational definitions, where necessary, to reduce any further ambiguities. Taking such precautions assisted in lending a measure of reliability to the study.

Selection of Experts

For this particular study, the sample consisted of a panel of individuals who were deemed experts in the field undergoing investigation. Each of the experts had a minimum

of five years of experience working in or with the labour market of the NHL in either a playing, coaching, or refereeing capacity. Attempts were also made to have members of the panel representative of the various positions on a NHL club (ie., forward, defence, goal). A summarized profile of each carefully selected expert has been provided as an appendix to this research study (see Appendix G).

The use of an alumni-oriented approach to soliciting expert opinion is not completely foreign to the field of sport management. Ulrich and Parkhouse (1982) conducted a study which relied upon the input of alumni in identifying sport management curricula that lead to increased work performance and satisfaction. In the same manner in which Ulrich and Parkhouse (1982) legitimized an alumni-oriented model as an alternative approach to curriculum design, the current study utilized retired players, coaches, and referees in developing the proposed equitable compensation model as an attractive alternative to the free market system that currently exists in the NHL. Given that the experts participating in this study are free from direct involvement in the collective bargaining process, their objectivity on the subject matter is enhanced.

Administration of the Modified Delphi

A cover letter was mailed out to each of the NHL experts that were designated to serve as potential experts for this study. Each cover letter was addressed to the experts' place of business or residence and explained the purpose and relative importance of the study (see Appendix H). The cover letter ensured the respondents confidentiality in identifying individual responses when reporting the results of the study. It was also necessary in the cover letter to indicate what implications the results of the study might have on the Sport

Management profession. Furthermore, the respondents were assured that they would receive an executive summary of the results upon the completion of the study. Finally, the cover letter included the Uniform Resource Locator (URL) that hosted the survey as well as a personalized username and password that could be used to access the questionnaire.

Two weeks following the mailing of the original cover letter, a follow-up letter was sent to the outstanding respondents as a reminder of the survey and stressing the importance of their expert opinion (see Appendix I). In hopes of reducing the potential shortcomings of using an on-line, World Wide Web-based questionnaire for conducting Delphi investigations (Young & Jamieson, 2001), a printed version of the survey along with a stamped, self-addressed return envelope was also included thus, those respondents who did not have access to the World Wide Web or were unfamiliar with how to complete the on-line questionnaire still had an opportunity to participate. These follow-up procedures were geared to providing a higher response rate.

For both the Second and Third Rounds, the mailouts that were sent to each of the experts to solicit their continued participation were reflective of the choice of methodology (on-line or paper and pen) utilized by the expert in the First Round of questioning. This was done to ensure that respondents could continue their participation in the study using the data collection technique with which they were comfortable.

Upon the completion of the Third and final Round of questioning a letter was sent to each of the respondents to thank them once again for participating in the study. Once the data from the surveys were tabulated and analysed, a summary of the collective findings and implications were forwarded to the respondents as promised in the initial cover letter.

Data Collection

In order to increase the speed at which information could be processed by the researcher, each Round of the modified Delphi questionnaire was posted on the World Wide Web through the use of Web forms. Along with the use of these web forms, Common Gateway Interface (CGI) scripts permitted the researcher to retrieve the responses and comments given by each of the experts instantaneously, thus reducing the delays commonly associated with pen and paper surveys.

The First Round of a typical Delphi survey asks the experts to respond to a list of open-ended questions which relate to a broad problem issue (Delbecq, et al., 1975; Hentges & Hosokawa, 1980). As a modification to this First Round (see Appendix J), respondents in this study were requested to give their opinions regarding what factors they considered to be important in determining a player's relative worth. Specifically, the researcher provided a series of questions that required the respondents to indicate the strength of importance of specific performance and non-performance variables that have been deemed by previous researchers to be at least somewhat meaningful in the determination of players salaries.

Section 'A' of Round One provided a series of questions that related to the various factors that may be considered important in determining a player's salary. Within each factor there were numerous performance and non-performance variables that were responsible for constructing and quantifying each individual factor. For example, offensive performance is considered to be an important determinant of the salary of a NHL forward (Lavoie, 1992). As such, the number of goals and assists scored by a particular player are going to have an impact on his overall offensive performance, and thus, his salary.

For variables listed within each question, respondents were required to indicate the strength of the importance of each variable on a ten-point ratio scale with accompanying semantic anchors: *no importance (0)*, *somewhat important (2.5)*, *important (5)*, *very important (7.5)*, and *extremely important (10)*. In addition, respondents had the opportunity to add any additional variables that they felt to be important in the construction of each factor and indicate their level of importance. Furthermore, respondents were also requested to provide the researcher with rationale for their responses, thus identifying areas of agreement and disagreement between experts.

For each question that the respondent encountered in Section 'A' of the modified Delphi, the researcher provided a visual representation of the ten-point ratio scale being used in this study with accompanying 'RADIO' check boxes at each one point interval along the scale. In order to indicate their responses, respondents were simply required to point their cursor to the 'RADIO' check box that most accurately represented their opinion regarding the importance of a particular variable and 'left click' their mouse to make their selection. In order for respondents to provide a written rationale for their responses in Section 'A,' a 'TEXTAREA' was provided where experts were encouraged to type out a brief justification for their decisions.

Section 'B' of Round One consisted of one question that required respondents to indicate the relative importance of each salary factor by allocating 100 points to each respondent and having them indicate the number of points that they would assign to each factor based on the importance that they should have in determining the salary of a NHL forward. In doing so, the respondents provided a percentage weighting for each factor which

could then be used in the computation of a player's salary. This type of value assessment was crucial in determining the relative weighting of each factor as the results obtained from a ratio scale-type question would not have lent itself to alternative quantitative methodologies, such as regression analysis, in determining such values. This limitation was primarily due to the inadequate ratio of subjects to variables which would have significantly jeopardized the validity of the results (Thomas & Nelson, 1996).

In order for respondents to complete the question in Section 'B' of the modified Delphi, respondents were required to input the relative values that they attributed to the various salary factors in specified 'TEXTAREAs' using the number keys on their keyboard. To ensure that the expert respondents entered the correct values in these 'TEXTAREAs,' the researcher, with the aid of specialized CGI scripts, was able to place limitations on the number of digits that could be inputted into each 'TEXTAREA.' In addition, the researcher, with the aid of 'JAVASCRIPT' coding, provided the opportunity for respondents to compute the sum of the entered values for each question to ensure that they equalled 100 points prior to submitting their responses.

The results from Round One began to identify the extent to which respondents agreed upon which variables and factors were most important in determining the salary of a NHL forward. The comments and reactions that were expressed by the respondents through the written arguments could then be used to further clarify the position of respondents for each variable.

In Section 'A' of Round Two, respondents were required to assign weighted values to those variables that were deemed to be at least 'somewhat important' within each factor

from the First Round. Assigning the weighted values for each variable was executed in a manner similar to the way Section 'B' of Round One was handled. In this Round, the researcher provided the respondents with 100 points for each question and requested that they indicate the number of points that they would assign to each variable based on the relative importance that each variable should have in determining the composition of each salary factor. In doing so, the respondents provided a percentage weighting for each variable within each salary factor which could then be applied in computing the salary of a NHL forward.

The construction of the World Wide Web-based survey for Section 'A' of Round Two was also similar to Section 'B' of Round One in that respondents were required to manually input the relative values that they attributed to the remaining 'somewhat important' variables within each salary factor in specified 'TEXTAREAs' using the number keys on their keyboard. Similarly, to ensure that the expert respondents entered the correct values in these 'TEXTAREAs,' the researcher once again placed limitations on the number of digits that could be inputted into each 'TEXTAREA.' As well, the researcher provided the opportunity for respondents to compute the sum of the entered values for each question to ensure that they equalled 100 points prior to submitting their responses.

In Section 'B' of Round Two, respondents were asked to reconsider their responses from Round One with a view to reconciling their previous convictions based on the comments and voting patterns of the entire panel of experts. It was anticipated that, based on the collective responses of the entire panel of experts, individual respondents would move towards consensus by altering their judgements on particular items in favour of conforming

to group responses. However, should a respondent wish to maintain a position outside of the reported group norms, the researcher provided the opportunity for him to provide a written explanation for his lack of convergence (McKibbin, 2000) through the use of specified 'TEXTAREAs.'

Specifically, in Section 'B' of Round Two, the mean was provided for each salary factor along with the written justifications for the decisions that were put forward in Round One. Based on this information, respondents were asked to reconsider the original value assessment that they made for each salary factor in the previous Round of questioning. Similar to the manner in which respondents indicated their opinions in Round One, they were required to manually enter the value assessments for each salary factor in the specified 'TEXTAREAs.'

Upon the completion of the Second Round, a Third and final Round was designed. In Round Three, respondents repeated the procedures outlined in Section 'B' of Round Two for both Sections 'A' and 'B' in hopes of achieving consensus. It is important to note that Round Three was the first time that respondents were able to reconsider the original responses from Section 'A' in light of those of the entire panel of experts.

Data Analysis

The descriptive data accumulated from Round One of the survey were analysed according to their measures of central tendency, and percentages. In Section 'A,' the respondents were asked to indicate the strength of the importance of each variable on a ten-point ratio scale ranging from *no importance* (0), to *extremely important* (10). From the results of Section 'A,' the researcher reported the mean values as well as the standard

deviation for each variable that was considered by the respondents (please note that the median and mode scores for all three Rounds are available in Appendix K).

Since the goal of this part of the survey was to determine how important each variable was in constructing the salary factors that would ultimately be responsible for determining the salary of a NHL forward, only those variables with a mean score of 2.5 or higher ($\mu \geq 2.5$) on the importance scale would be considered beyond Round One. This was done to ensure that *all* of the variables being considered for inclusion in the compensation model had been deemed at least *somewhat important* by the selected panel of experts.

In Section 'B,' the researcher once again determined the mean, median, and mode values along with the standard deviation for each factor being considered. As the goal of this question was to determine the relative weight or value of each factor in the determination of salaries, all factors were considered for reconciliation in Round Two. This decision was made because any factor that has even the slightest degree of importance deserves to be included in the final construction of the compensation model as it can have a significant impact on the salary outcome of numerous NHL forwards. The manner in which this question was presented to the respondent also provided the opportunity for the researcher to present the final results from Section 'B' in a percentage format which is much easier to apply to the equitable compensation model being proposed.

The results for Section 'A' and 'B' from Rounds Two and Three were handled in the same fashion as they were in Section 'B' of Round One. In addition, as a means of demonstrating convergence, the researcher also assessed the change in the standard deviations from one Round to the next. Generally, the smaller the standard deviation, the

more convergence there is around the mean score (Argyrous, 2000; Thomas & Nelson, 1996).

As an additional method of demonstrating convergence in this study, the researcher also measured the change in the *Coefficient of Variation* from one Round to the next. “The coefficient of variation expresses the standard deviation as a percentage value of the mean value” (Norušis, 2002, p. 87). The coefficient of variation serves to overcome some of the limitations of analysing the standard deviation in isolation, and as such is often used “...for comparing distributions measured in the same units but which have very different means, and for comparing distributions measured with different units” (Argyrous, 2000, p. 79). Similarly, the smaller the coefficient of variation, the more convergence there is around the mean score (Argyrous, 2000; Norušis, 2002).

CHAPTER IV - RESULTS

Expert Participation

In order to ascertain a measure of domain-reference validity (Thomas & Nelson, 1996), the researcher relied upon the expertise of five sport management academicians and practitioners to review the questionnaires and provide constructive feedback. Specifically, prior to distributing each Round of the survey to the NHL experts, these sport managers were asked to provide comments and suggestions as to the clarity of the wording of the questions, the ease of answering the questions, and the time that was required to complete the survey. In each case, the feedback from the sport managers was minimal and generally related to the specific wording of the questions which was dealt with by providing further clarification to the respondent or by making minor revisions.

In all, 16 retired NHL players, referees and coaches served as experts for this study. Each expert was mailed a cover letter which explained the purpose and relative importance of the study and provided a specific username and password that he could use to access the on-line, World Wide Web-based questionnaire. Following these initial mailings, only two replies were received by the researcher via the on-line, World Wide Web-based questionnaire. Given the potential for attrition in Delphi studies and that the validity of the study hinged upon the credibility of the experts participating, the researcher resorted to the prescribed follow-up techniques to assist in accumulating a higher response rate from the prospective respondents. Such methods proved beneficial as an additional 14 replies were received by the researcher for a total of 16 completed surveys in Round One.

Of the 16 submitted surveys, five were completed using the on-line, World Wide Web-based questionnaire, while the remaining 11 surveys were submitted via letter-post using the pen and paper-based version. This distribution could be explained by the demographics of the experts that elected to participate in this study. Given that the mean age for the NHL experts who responded was 52, it could be surmised that many of the experts were apprehensive about using this relatively 'new' technology for the purpose of collecting information pertaining to the topic being researched. While some of the experts may have been familiar with computers and may have had access to the World Wide Web, it is reasonable to suggest that others would have had little or no exposure to such technology and thus would have shown little interest in participating through these means. Evidence of this apprehension was exhibited through one expert's incomplete submission of the on-line, World Wide Web-based survey which was followed up by the submission of the paper-based survey a few weeks later. Concerns over the accessibility to computer software and hardware, and the comfort level in using computers of the population for which the survey has been targeted has served as the basis for discussion amongst numerous researchers using the World Wide Web to collect data in survey-based research studies (Couper & Nichols, 1998; Young & Jamieson, 2001).

The remainder of this chapter presents the results and ensuing discussions from each Round of questioning in sequential order.

Round One

As indicated previously, the underlying purpose of the First Round of questioning was to solicit the opinions of the legitimized experts as to what factors they consider to be

important in determining a player's relative worth. Specifically, the researcher provided a series of ten questions, divided into two Sections, which required the respondents to indicate the strength of the importance of specific performance and non-performance variables that were deemed by previous researchers to be at least somewhat significant in the determination of players' salaries (see Appendix J).

Section 'A' of Round One consisted of a series of nine questions that related to the various factors that may be considered important in determining a player's salary. Within each factor there were numerous performance and nonperformance variables that were responsible for objectively constructing and quantifying each individual factor. For each variable listed within each question, respondents were required to indicate the strength of the importance of each variable on a ten-point ratio scale with accompanying semantic anchors: *no importance (0)*, *somewhat important (2.5)*, *important (5)*, *very important (7.5)*, and *extremely important (10)*. As the goal of this part of the survey was to determine how important each variable was in constructing the salary factors that would ultimately be responsible for determining the salary of a NHL forward, only those variables with a mean score of 2.5 (*somewhat important*) or higher ($\mu \geq 2.5$) on the importance scale would be considered beyond this Round.

In addition, experts were highly encouraged to include a brief rationale as a means of substantiating each of their assessments in Section 'A.' While these rationales do not have much of a role to play in the discussion of the results from Round One, they would subsequently be used as the basis for further analysis in Rounds Two and Three.

Section A - Question One:

The first question dealt with by the respondents pertained to Salary Factor 'A' which was identified as *Offensive Performance*. This particular salary factor included the following offensive performance variables: *Goals, Assists, Points, Points per Game, Shots on Goal, Shooting Percentage, Total Face-offs Taken, and Face-off Winning Percentage*. For each of the above-mentioned offensive performance variables, the experts were asked to indicate how important each should be in determining the salary of a NHL forward. Operational definitions for each of the offensive performance variables along with the cumulative results obtained from the expert respondents are discussed below.

The first offensive performance variable to be addressed in this analysis was *Goals*. "A goal is awarded to the last player on the scoring Club to touch the puck prior to entering the net" (National Hockey League, 2000, p. 13/1). As the primary means of dictating the outcome of a NHL hockey game, this particular measure of offensive performance was deemed to be *very important* ($\mu = 8.5$) by the experts in determining the salary of a NHL forward (see Table 1).

Assists was the second offensive performance variable to be considered in the analysis. According to the *National Hockey League Public Relations Manual* (National Hockey League, 2000), "[a]n assist is awarded to the player or players (maximum of two) who touched the puck prior to the goal, provided no defender plays or possesses the puck in between"(p. 13/1). As the offensive performance measure that generally precedes the scoring of goals and thus having a significant impact on the outcome of a NHL hockey game, it was established by the experts that this measure was considered to be *very important* ($\mu = 7.8$)

Table 1 **Offensive Performance Variables - Round 1**

Variable	Mean	SD	Value
Goals	8.5	1.5	Very important
Assists	7.8	1.5	Very important
Points	8.8	1.1	Very important
Points per Game	7.6	1.7	Very important
Shots on Goal	6.2	2.1	Important
Shooting Percentage	5.2	2.2	Important
Total Face-offs	5.2	2.0	Important
Face-off Winning Percentage	6.9	1.8	Important

in determining the salary of a NHL forward (see Table 1).

Thirdly, expert respondents were asked to evaluate the importance of *Points* in determining the salary of a NHL forward. As the cumulative sum of goals and assists (STATS, 2000), it was established by the experts that points should be *very important* ($\mu = 8.8$) in determining a NHL forward's salary (see Table 1).

As a ratio measure of the number of points accumulated by a player divided by the number of games played, *Points per Game* was the fourth variable to be rated by the expert respondents. As a reflection of a player's consistency in performance, points per game was maintained as *very important* ($\mu = 7.6$) by the experts in determining the salary of a NHL forward (see Table 1).

Shots on Goal was yet another measure of offensive performance that experts were required to assess.

If a player shoots the puck with the intention of scoring and if that shot would have gone in the net had the goaltender not stopped it [statistically recognized as a save], the shot is recognized as a 'shot on goal.' (National Hockey League, 2000, p. 13/2)

Given that one cannot score without having shot the puck at the net, shots on goal was considered to be *important* ($\mu = 6.2$) in establishing the salary of a NHL forward (see Table 1).

While shots on goal merely measures the number of shots a player takes, *Shooting Percentage* measures the relative success of these shots beating the goaltender and counting as a goal by "divid[ing] the number of goals scored by the number of shots taken" (National Hockey League, 2000, p. 13/2). This particular offensive performance variable was judged to be similarly *important* ($\mu = 5.2$) in determining the salary of a NHL forward (see Table 1).

The seventh offensive performance variable to be evaluated by the legitimized NHL experts was *Total Face-offs*. A face-off is defined as:

the method of starting play when an official drops the puck between the sticks of two opposing players standing one stick length apart with stick blades flat on the ice. [It is] also used to begin each period or to resume play when it has stopped for other reasons. (CNN/Sports Illustrated, 2001a)

As the statistical category that measures the number of face-offs a particular player participates in, total face-offs was deduced as being *important* ($\mu = 5.2$) in determining the salary of a NHL forward (see Table 1).

The final variable to be rated by the experts in question one was *Face-off Winning Percentage*. Defined as the rate at which a particular player is successful in winning the face-off and thus gaining possession of the puck, and calculated as “the number of faceoffs won divided by the total number of faceoffs” (Nashville Predators, 2003), this offensive performance variable was regarded as *important* ($\mu = 6.9$) in the determination of the salary of a NHL forward (see Table 1). Along with the rest of the offensive performance variables presented in question one, face-off winning percentage met the minimum criteria ($\mu \geq 2.5$) for being considered in the final determination of the equitable compensation model being proposed in this study.

Absent from this analysis are two nonperformance measures that could have easily been included for experts to evaluate in question one. Voting results from the *Art Ross Trophy* and the *Maurice “Rocket” Richard Trophy* are publicly available and could easily have been included due to their inherent reliance upon offensive performance statistics. The Art Ross Trophy is “[a]n annual award to the player who leads the league in scoring points at the end of the regular season” (National Hockey League, 2002, p. 201) and the Maurice “Rocket” Richard Trophy is “[a]n annual award presented to the player finishing the regular season as the League’s goal-scoring leader” (National Hockey League, 2002, p. 204). As indicated in the explanation of each of these very prestigious trophies, they are awarded based on offensive performance variables that are already recognized in the offensive performance salary factor (points and goals respectively). Given that it would make little sense to compensate players twice for the same measure of offensive performance, these two nonperformance measures were excluded from this analysis.

Lastly, as the opportunity for experts to suggest additional offensive performance variables was provided, it is worth noting four additional variables were recommended for consideration for further analysis. The first recommendation was to consider “leadership” as an offensive performance variable. Due to the fact that leadership was a Salary Factor of its own, the researcher deemed it not to be worth considering any further as an offensive performance variable. The second recommendation was to consider “discipline” as an offensive performance variable. While it is very difficult to quantify this intangible quality, one could argue that it could be found by assessing a player’s penalty statistics which is incorporated into the *Robustness* Salary Factor and thus was not included as an element of offensive performance any further. The final two variables that were suggested by the panel of experts are “attitude” and “respect for the coach.” Similar to the case of discipline, these characteristics are difficult to measure objectively. It is possible they would have been more appropriately categorized as elements of the *Leadership* Salary Factor and as such were not included as offensive performance variables beyond this point.

Section A - Question Two:

Question two of Section ‘A’ pertained to Salary Factor ‘B’ which was appropriately identified as *Defensive Performance*. Distinctly different from its offensive counterpart, this salary factor included the following defensive performance and nonperformance variables: *Plus/Minus Rating, Total number of Takeaways, Total number of Giveaways, Total number of Shots Blocked, and Frank J. Selke Trophy voting*. For each defensive performance variable, the experts indicated how important these variables should be in determining the salary of a NHL forward. The following discussion provides operational definitions for each

of the defensive performance variables along with the cumulative results obtained from the expert respondents.

Plus / Minus Rating was the first defensive performance variable to be evaluated by the expert respondents. According to the *National Hockey League Public Relations Manual* (National Hockey League, 2000):

A player receives a 'plus' if he is on the ice when his Club scores an even-strength or shorthanded goal. He receives a 'minus' if he is on the ice for an even-strength or shorthanded goal scored by the opposing club. The difference in these numbers is considered the player's plus/minus statistic. (p. 13/1)

The expert respondents assessed a player's plus / minus rating as *important* ($\mu = 5.6$) in determining the salary of a NHL forward (see Table 2).

The *Total number of Takeaways* was another defensive performance variable that was assessed by the NHL experts. A takeaway "...occurs when pressure from the defending team results in a defending player gaining possession of the puck" (Nashville Predators, 2003). In calculating the mean score for this particular variable, it was established by the panel of experts that the total number of takeaways was *important* ($\mu = 6.0$) in determining the salary of a NHL forward (see Table 2).

As an alternative measure of defensive performance, the *Total number of Giveaways* was calculated as the total number of times that "...a player's own actions result in a loss of puck possession to the opposing team. When a player deliberately shoots the puck into the opponent's end, the play is not counted as a giveaway" (Nashville Predators, 2003).

Table 2 **Defensive Performance Variables - Round 1**

Variable	Mean	SD	Value
Plus / Minus Rating	5.6	2.2	Important
Total number of Takeaways	6.0	2.0	Important
Total number of Giveaways	5.9	2.4	Important
Total number of Shots Blocked	5.5	2.1	Important
Frank J. Selke Trophy voting	6.6	2.6	Important

According to the cumulative responses of the NHL experts, a player's total number of giveaways was deemed to be *important* ($\mu = 5.9$) in determining a NHL forward's salary (see Table 2).

The fourth defensive performance variable that the panel of NHL experts were required to evaluate was the *Total number of Shots Blocked*. Defined as the total number of times that a "...puck directed at the net with the intent to score...is intentionally blocked or deflected by a defending player's body or stick" (Nashville Predators, 2003), the total number of shots blocked was regarded as *important* ($\mu = 5.5$) by the experts in this First Round of questioning (see Table 2).

The fifth and final defensive performance variable that was to be assessed by the NHL experts was *Frank J. Selke Trophy voting*. This trophy is recognized by those in the NHL community as "[a]n annual award to the forward who best excels in the defensive aspects of the game. Winner selected in a poll by the Professional Hockey Writers' Association at the end of the regular schedule" (National Hockey League, 2002, p. 202). As

the last of the defensive performance variables, Frank J. Selke Trophy voting was valued by the experts as being *important* ($\mu = 6.6$) in determining the salary of a NHL forward (see Table 2). In summary, all of the defensive performance variables evaluated in question two were approved for consideration in the equitable compensation model as they all met the predetermined minimum standard ($\mu \geq 2.5$).

As was the case for question one, experts were afforded the opportunity to suggest additional defensive performance variables that they felt were relevant in determining the salary of a NHL forward. Only one additional variable was proposed by the panel of experts in this initial Round of questioning. It was suggested that it may be worthwhile to consider a player's ability to "stay home" in evaluating their defensive attributes. More appropriately, this variable should be relegated to a future study that develops an equitable compensation model for NHL defencemen who by definition prefer to remain "...stationed in or near their defensive zone to help the goalie guard against attack..." (CNN/Sports Illustrated, 2001a). Furthermore, neither the NHL Real-Time Scoring System, nor the Statistical Hockey Analysis and Reporting Package (SHARP) provide any means of quantifying this particular defensive performance variable (Leonard, 1994; National Hockey League, 2000) thus providing no feasible way of incorporating it into the current study.

Section A - Question Three:

Salary Factor 'C,' otherwise known as *Leadership*, was the third question that NHL experts were requested to evaluate on the basis of how important the various leadership variables should be in determining the salary of a NHL forward. For the purpose of this study, the leadership salary factor included the following performance and nonperformance

variables: *Captaincy*, *Experience (Career Years)*, *Experience (Career Games)*, *Experience (Games Played)*, *Experience (Ice Time)*, *Lady Byng Memorial Trophy voting*, *Bill Masterton Memorial Trophy voting*, and *King Clancy Memorial Trophy voting*. As was the case for both question one and two, for each of the aforementioned leadership variables, the operational definitions and cumulative results obtained from the expert respondents for each variable are discussed below.

The first leadership variable to be evaluated by the expert respondents was *Captaincy*. Captaincy has been operationally defined as being recognized as a particular team's 'Captain' or 'Alternate Captain.' As a recognition of leadership qualities, captaincy was valued by the experts as being *important* ($\mu = 6.6$) in determining the salary of a NHL forward (see Table 3).

As leadership abilities are often the consequence of experience in a given situation, the next four leadership variables all served to evaluate a NHL forward's *Experience* in the League relative to a specific statistical variable. Firstly, experience was rated in terms of *Career Years*. Defined as the total number of years (seasons) played in the NHL over the course of a player's career, a player receives credit for playing in a season if he has played in a minimum of one game in a given season. Career years was deemed to be an *important* ($\mu = 6.3$) measure of leadership in determining the salary of a NHL forward (see Table 3). Secondly, experience was evaluated according to *Career Games*, which is simply the total number of games played in the NHL over the course of a player's career. Likewise, career games was viewed as being *important* ($\mu = 6.1$) in determining the salary of NHL forwards

Table 3 Leadership Variables - Round 1

Variable	Mean	SD	Value
Captaincy	6.6	1.7	Important
Experience (Career Years)	6.3	1.3	Important
Experience (Career Games)	6.1	1.5	Important
Experience (Games Played)	6.1	1.6	Important
Experience (Ice Time)	7.2	1.0	Important
Lady Byng Memorial Trophy voting	4.5	2.3	Somewhat important
Bill Masterton Memorial Trophy voting	4.6	2.6	Somewhat important
King Clancy Memorial Trophy voting	5.7	2.3	Important

(see Table 3).

Thirdly, *Games Played* was judged as a measure of a NHL forward's experience. Defined as the total number of games a player has played in during the previous NHL season, "[a] player receives credit for playing in a game if: i) he steps on the ice during time played or; ii) serves any penalty" (National Hockey League, 2000, p. 13/1). This measure of experience was also believed to be *important* ($\mu = 6.1$) in determining the salary of a NHL forward (see Table 3). The fourth and final measure of experience that was evaluated by NHL experts in the Leadership Salary Factor was *Ice Time*. Measured as the average amount of on-ice playing time that a player receives per game during the past NHL season (in minutes and seconds), ice time was also considered to be an *important* ($\mu = 7.2$) leadership variable in determining a player's relative worth (see Table 3).

The *Lady Byng Memorial Trophy* is:

An annual award to the player adjudged to have exhibited the best type of sportsmanship and gentlemanly conduct combined with a high standard of playing ability [and is] selected in a poll by the Professional Hockey Writers' Association at the end of the regular schedule. (National Hockey League, 2002, p. 202)

As yet another means of recognizing a NHL forward's leadership characteristics, *Lady Byng Memorial Trophy* voting was also assessed by the expert panel in terms of how important it should be in determining the salary of a NHL forward. The experts agreed that this measure of leadership was only *somewhat important* ($\mu = 4.5$) in establishing this outcome (see Table 3).

The voting for the *Bill Masterton Memorial Trophy* was another leadership variable that was considered by the experts. The Bill Masterton Trophy is:

An annual award under the trusteeship of the Professional Hockey Writers' Association to the National Hockey League player who best exemplifies the qualities of perseverance, sportsmanship, and dedication to hockey [and is] selected by a poll among the 30 chapters of the Professional Hockey Writers' Association at the end of the regular season. (National Hockey League, 2002, p. 203)

Recognized as such, the respondents indicated that this leadership variable is only *somewhat important* ($\mu = 4.6$) in determining the salary of a NHL forward (see Table 3).

The final leadership variable related to the *King Clancy Memorial Trophy voting*. Recognized as “[a]n annual award to the player who best exemplifies leadership qualities on and off the ice and has made a noteworthy humanitarian contribution in his community” (National Hockey League, 2002, p. 204), NHL experts suggested that this particular leadership variable was *important* ($\mu = 5.7$) in deciding the base salary of a NHL forward (see Table 3). Due to the fact that each of the leadership variables presented in question three were deemed to be at least *somewhat important* ($\mu \geq 2.5$) in determining the salary of a NHL forward, each was further considered in Rounds Two and Three leading to the proposed equitable compensation model.

While the opportunity to suggest additional leadership variables was granted to the expert respondents in question three, no further recommendations were put forth. In considering the recommendations of “attitude” and “respect for the coach” which were put forward by the experts in question one, the researcher acknowledges these as being consistent with a player’s leadership characteristics. Unfortunately, due to the fact that these personal attributes could not be easily nor objectively quantified between or among the NHL clubs, they were not considered for any further analysis in this study. To the knowledge of the researcher, there were no other potential leadership variables that were omitted from question three.

Section A - Question Four:

Question four, which relates to Salary Factor ‘D’, asked experts to indicate how important the following *Robustness* variables should be in determining the salary of a NHL forward: *Penalties in Minutes*, *Number of Major Penalties*, *Number of Minor Penalties*,

Number of Fighting Penalties, Number of Roughing Penalties, Number of Hooking, Holding or Tripping Penalties, and Hits. The operational definitions and cumulative results obtained from the expert respondents for each of the above-mentioned robustness variables is discussed in the following section.

The primary robustness variable to be gauged by the experts was *Penalties in Minutes*. “Hockey coaches have long argued that certain types of penalties, if well timed, can promote team morale and facilitate momentum” (Voyer & Wright, 1998, p. 469). For the sake of this study, a penalty is defined as “punishment of a player for a violation of the rules, resulting in the suspension from the game for a period of time [measured in minutes]. There are six types: minor, bench, major, misconduct, match and goalkeeper’s penalties” (CNN/Sports Illustrated, 2001b). This particular measure of robustness was perceived to be only *somewhat important* ($\mu = 4.3$) in determining the salary of a NHL forward (see Table 4).

Given that different penalties are assessed for various rule violations, the researcher elected to break down the various types of penalties into four separate variables based on statistics that are made publicly available through various NHL publications. The first of these types of penalties is the *Major Penalty* which is defined as “a penalty called for more serious infractions of the rules [which u]sually results in five minutes in duration whether or not the non-penalized team scores” (CNN/Sports Illustrated, 2001b). Given that violent player behaviour may be counterproductive to favourable game outcomes (McCaw & Walker, 1999), the panel of NHL experts suggested that the *Number of Major Penalties* that a NHL forward assumes should only be *somewhat important* ($\mu = 3.3$) in determining their

Table 4 Robustness Variables - Round 1

Variable	Mean	SD	Value
Penalties in Minutes	4.3	1.6	Somewhat important
Number of Major Penalties	3.3	1.9	Somewhat important
Number of Minor Penalties	3.1	1.8	Somewhat important
Number of Fighting Penalties	3.8	2.1	Somewhat important
Number of Roughing Penalties	3.1	2.0	Somewhat important
Number of Holding, Hooking or Tripping Penalties	2.2	1.9	<i>No importance</i>
Hits	5.5	2.3	Somewhat important

salary (see Table 4).

Secondly, *Minor Penalties* are commonly known as any “...penalty lasting two minutes. If the non-penalized team scores a power-play goal during this time, the penalty ends immediately” (CNN/Sports Illustrated, 2001b). This less inhibiting robustness variable was put forth by the expert respondents as also being only *somewhat important* ($\mu = 3.1$) in determining the salary of a NHL forward (see Table 4).

Thirdly, the panel of NHL experts was requested to evaluate the *Number of Fighting Penalties* a NHL forward accrues relative to how important it should be in determining his salary. As the fourth robustness variable to be assessed in question four, a fighting penalty is operationally defined as “a major penalty which occurs when two or more players drop their sticks and gloves and fight” (CNN/Sports Illustrated, 2001b). While some people feel that fighting in hockey is important in maintaining the interest of fans (Hymon, 1993), others

have proposed that it is unnecessary (Kennedy, 2000) and have reported significant negative correlations to final League standings (Engelhardt, 1995). Nevertheless, the number of fighting penalties accumulated by a NHL forward was judged as being *somewhat important* ($\mu = 3.8$) in the determination of salary (see Table 4).

Fourthly, the *Number of Roughing Penalties* was rated by the experts in terms of how important this robustness variable should be in arbitrating a NHL forward's salary. A roughing penalty is "...a minor altercation that is not worthy of a major penalty to either participant. (An altercation is a situation involving two players, with at least one to be penalized)" (National Hockey League, 2001, p. 147). According to the NHL experts who elected to participate in this study, the number of roughing penalties should be *somewhat important* ($\mu = 3.1$) in determining the salary of a NHL forward (see Table 4).

As the last type of penalty to be examined in this analysis, the NHL experts who opted to participate in Round One of the survey were required to assess how important the *Number of Holding, Hooking or Tripping Penalties* should be in determining the salary of a NHL forward. While there are numerous types of minor penalties that could have been included as part of this question, only holding, hooking, and tripping penalties were being published at the time of the study. Perhaps this was due to the fact that "[t]hese are penalties generally called when a player gets burned and is forced to use illegal measures to impede an opposing skater's progress" (STATS, 2000, p. 563). Given this rationale, it is no wonder that NHL experts suggested that this robustness variable should have *no importance* ($\mu = 2.2$) in determining the economic livelihood of a NHL forward (see Table 4).

The last robustness variable to be appraised by the respondents, and the only variable in question four not associated with a type of penalty, was *Hits*. A hit is defined as “...any legal contact from one player on an opposing player that exerts enough force as to prevent the player from controlling the puck, knocks him off the puck, or significantly impedes his progress” (Nashville Predators, 2003). As a quantifiable indication of a player’s aggressive style of play, NHL experts submitted that hits should be *important* ($\mu = 5.5$) in deciding the salary of a NHL forward (see Table 4). Consequently, all of the robustness variables, with the exception of the *Number of Holding, Hooking or Tripping Penalties* were considered to be at the very least *somewhat important* ($\mu \geq 2.5$) in determining the salary of a NHL forward and was to be considered in the final calculation of the equitable compensation model. Due to the fact that the *Number of Holding, Hooking or Tripping Penalties* variable did not make the minimum requirements for final consideration in this study, it was excluded from all further analysis by the panel of NHL experts.

Once again, the respondents were given the opportunity to suggest additional robustness variables in question four. However, no additional variables were recommended by these experts. Furthermore, while various other types of penalties (ie., slashing, unsportsmanlike conduct, and so forth) could have been included in this analysis, they are not currently published in a cumulative manner and as such were deliberately omitted from question four.

Section A - Question Five:

As a means of addressing Salary Factor ‘E,’ question five in Section ‘A’ required respondents to indicate how important various *Fan Appeal* variables were in determining the

salary of a NHL forward. Only two variables were worthy of consideration in this analysis: *All-Star Game Fan balloting* and a player's *Total Number of Career All-Star Game Starting Line-ups*. The starting players for the NHL All-Star Game are selected by the fans on the basis of total number of votes cast in the NHL All-Star Fan balloting program (Tredree, 2000). The results of this balloting process is published annually in the *National Hockey League All-Star Game Media Guide* (Tredree, 2000) and serves as the primary basis for measuring fan appeal in question five.

In considering the All-Star Game fan balloting variable, experts were asked to rate how important the number of votes a NHL forward receives should be in calculating his salary. The results revealed that the panel of respondents believed that All-Star Game Fan balloting should be *somewhat important* ($\mu = 4.2$) in determining the salary of a NHL expert (see Table 5). Furthermore, the total number of times that a forward has been elected to the All-Star Game starting line-up over the course of his career should be considered *important* ($\mu = 5.2$) in determining his earnings (see Table 5). Since both of these fan appeal variables met the minimum criteria ($\mu \geq 2.5$) set forth to be considered in the final construction of the equitable compensation model, both were considered in further Rounds of questioning.

While there may be several alternative ways of measuring fan appeal, no additional variables were recommended for consideration in the opening Round of questioning. Perhaps the reason that no additional variables were suggested by the panel of experts was that many of these additional measures of fan appeal are subjective in nature and not easily quantifiable. For example, one may attempt to measure fan appeal by monitoring the number of hockey collectible and memorabilia transactions and their associated sale prices on the

Table 5 Fan Appeal Variables - Round 1

Variable	Mean	SD	Value
All-Star Game Fan balloting	4.9	2.8	Somewhat important
Total Number of Career All-Star Game Starting Lineups	5.2	2.5	Important

NHL Auctions Website (<http://auctions.nhl.com/>) to determine which players names and likenesses are more highly sought after and more highly valued by hockey collectors and enthusiasts. It could be surmised that higher quantities of transactions and higher sale prices would be reflective of a greater appeal to hockey fans. While this seems reasonable to measure, it remains somewhat subjective as there may be more samples of some player's merchandise than there is available from others, thus impacting the quantities being bought and sold and their relative values due to the laws of supply and demand.

Section A - Question Six:

Question six of Section 'A,' which pertained to Salary Factor 'F,' required the expert respondents to indicate how important various *Rookie Variables* should be in determining the salary of a NHL forward. In all, five variables were considered in this question: *Draft Selection, NHL Rookie of the Month selections, NHL All-Rookie Team balloting, NHL Central Scouting Bureau Rating, and Calder Memorial Trophy voting*. As was the case in each of the previous questions, for each of the above-mentioned rookie variables, the operational definitions and results are discussed in the subsequent paragraphs.

The first variable to be assessed by the experts in question six relative to the importance it should have in determining the salary of a NHL forward was *Draft Selection*. The draft selection is, quite simply, the rank at which a particular player was chosen in the NHL Entry Draft. The Entry Draft is defined as the process by which NHL clubs take turns selecting eligible players in reverse order of league standings from the previous season, with some minor modifications for the First Round, to allocate new players to member clubs (NHLPA/NHL, 1997). “The NHL’s Entry Draft and its predecessor, the Amateur Draft, have been the gateway to the National Hockey League for players from all over the world” (Diamond, 2000b, p. 310). The NHL experts who participated in this study indicated that the draft selection of an NHL forward should be *important* ($\mu = 6.8$) in determining his salary (see Table 6).

Secondly, the number of *NHL Rookie of the Month selections* was rated by the expert panel to determine how important this variable was in determining the salary of a NHL forward. During the course of the regular season, the NHL’s Public Relations Department selects a Rookie of the Month based on the performances of rookie players who were nominated by member clubs (National Hockey League, 2000). The hockey experts who participated in this study indicated that the number of NHL Rookie of the Month selections should also be *important* ($\mu = 5.8$) in determining the salary of a NHL forward (see Table 6).

The third rookie variable to be evaluated by the expert panel who assisted with this study was *NHL All-Rookie Team balloting*. The NHL All-Rookie Team is composed of one goaltender, two defencemen, and three forwards (one centreman, one left-winger, and one right-winger) who are voted in by representatives of the Professional Hockey Writers’

Table 6 **Rookie Variables - Round 1**

Variable	Mean	SD	Value
Draft Selection	6.8	2.0	Important
NHL Rookie of the Month selections	5.8	1.9	Important
NHL All-Rookie Team balloting	5.6	2.3	Important
NHL Central Scouting Bureau rating	4.9	2.9	Somewhat Important
Calder Memorial Trophy voting	6.8	2.0	Important

Association at the end of the regular season based on their performance over the course of the year (National Hockey League, 2002). Past NHL All-Rookie Team members, dating back to the first selection following the 1982-83 season, are published annually in the *National Hockey League Official Guide & Record Book*. The panel of legitimized experts who took part in this study proposed that this variable should be similarly *important* ($\mu = 5.6$) in determining the base salary of a forward in the NHL (see Table 6).

Fourthly, NHL experts were required to judge how important the *NHL Central Scouting Bureau rating* should be in establishing the salary of a NHL forward. “NHL Central Scouting was first established prior to the 1975-76 season to provide a scouting and evaluation service for NHL member clubs” (Tredree, 2002, p. 5). This evaluation is designed to assist NHL member clubs in preparing for the NHL Entry Draft by cataloguing draft-eligible player prospects based on their performances in various amateur hockey leagues across North America and Europe. Expert respondents suggested that a player’s Central Scouting Bureau rating should be only *somewhat important* ($\mu = 4.9$) in determining the

salary of a NHL forward (see Table 6).

The fifth and final rookie variable that experts were required to appraise in question six was *Calder Memorial Trophy voting*. The Calder Memorial Trophy is:

An annual award to the player selected as the most proficient in his first year of competition in the National Hockey League...[as] selected in a poll by the Professional Hockey Writers' Association at the end of the regular schedule.

(National Hockey League, 2002, p. 201)

As one of the highest distinctions available to a first-year player in the NHL, the NHL experts who participated in this study recommended that voting results from the Calder Memorial Trophy should be *important* ($\mu = 6.8$) in determining the salary of a NHL forward (see Table 6).

Since each of the rookie variables introduced in question six were deemed to be at least *somewhat important* ($\mu \geq 2.5$) in determining the salary of a NHL forward, each were accepted for consideration in Rounds Two and Three in order to be included as part of the equitable compensation model being proposed in this study. As was the case in previous questions, experts were granted the opportunity to recommend additional rookie variables in question six. However, no further rookie variables were proposed.

Section A - Question Seven:

The final salary factor to be addressed by the experts in Section 'A,' Salary Factor 'G,' is appropriately entitled *Superstar*. In question seven, the expert panel was required to rate how important eight different superstar variables should be in determining the salary of a NHL forward: *All-Star Team balloting*, *Bud Light NHL All-Star Game MVP Award*

selection, NHL Player of the Week selections, NHL Player of the Month selections, Game Star Points, Hart Memorial Trophy voting, Conn Smythe Trophy voting, and Lester B. Pearson Award voting. In the following paragraphs, each of the aforementioned superstar variables are defined and discussed relative to the results of their individual assessments by the panel of hockey experts.

The first superstar variable to be addressed by the hockey experts was *All-Star Team balloting*. Quite different from the process used for selecting players to the starting lineup at the annual All-Star game, the members of the NHL's First and Second All-Star Teams are selected through a balloting process conducted by the Professional Hockey Writers' Association at the end of the season (National Hockey League, 2002). Similar to the way in which the All-Rookie team is composed, each of the NHL All-Star teams are made up of one goaltender, two defencemen, and three forwards (one centreman, one left-winger, and one right-winger) who are voted to each team based on their performance over the course of the regular season. Given that the NHL All-Star teams have been recorded since the 1930-31 season (National Hockey League, 2002), the experts considered that this variable should be *important* ($\mu = 6.5$) in determining the salary of a NHL forward (see Table 7).

Secondly, selection as the *Bud Light NHL All-Star Game MVP Award* was scored according to how important it should be in determining the salary of a NHL forward. "Awarded to the player adjudged to be the Most Valuable Player in the NHL's annual All-Star Game" (National Hockey League, 2002, p. 205), this award was deemed to be only *somewhat important* ($\mu = 3.9$) in determining the salary of a NHL forward (see Table 7). Perhaps the rationale for such a low value being attributed to such an honourable distinction

Table 7 **Superstar Variables - Round 1**

Variable	Mean	SD	Value
All-Star Team balloting	6.5	2.4	Important
Bud Light NHL All-Star Game MVP Award selection	3.9	2.8	Somewhat Important
NHL Player of the Week selections	4.9	2.7	Somewhat Important
NHL Player of the Month selections	5.3	2.7	Important
Game Star Points	4.9	2.4	Somewhat Important
Hart Memorial Trophy voting	8.2	1.6	Very Important
Conn Smythe Trophy voting	7.5	1.9	Very Important
Lester B. Pearson Award voting	7.9	1.7	Very Important

is due to the fact that, as one expert respondent put it, the NHL All-Star Game is “a no-touch shinny game,” and thus is not necessarily representative of a player’s performance in a regular season or playoff game.

The third variable to be examined in question seven of Section ‘A’ was *NHL Player of the Week selections*. For each of the 25 seven-day periods (from Monday through Sunday) in the regular season, the NHL’s Public Relations Department selects a Player of the Week based on the performances of nominated players (National Hockey League, 2000). Given that certain expert participants believed that perhaps “3 or 4 games is not much” on which to base a player’s salary, it was suggested that NHL Player of the Week selections should only be *somewhat important* ($\mu = 4.9$) in deciding a NHL forward’s earnings (see Table 7).

Similarly, the “The NHL’s Public Relations Department [also] selects a Player of the Month during the course of the regular season” (National Hockey League, 2000, p. 9/1). In

representing a larger distribution of games played, *NHL Player of the Month selections* were more favourably viewed by the panel of experts. As such, the cumulative results of the experts polled in this study, recommended that NHL Player of the Month selections should be *important* ($\mu = 5.3$) in resolving the base salary of a NHL forward (see Table 7).

The fifth superstar variable assessed by the panel of legitimized hockey experts is *Game Star Points*.

At the conclusion of every NHL contest, the game's top three players are chosen (generally by the media). This [measure] is the sum total of all the Game Stars a player receives during a season, weighted by five points for being selected the First Star, three points for being selected the Second Star, and one point for being selected the Third Star. (STATS, 2000, p. 563)

Indicative of a consistent performer, NHL experts submitted that Game Star Points should be only *somewhat important* ($\mu = 4.9$) in deducing the salary of a NHL forward (see Table 7).

Recognized as “[a]n annual award to the player adjudged to be the most valuable to his team...at the end of the regular season” (National Hockey League, 2002, p. 201), the *Hart Memorial Trophy* was the sixth superstar variable to be addressed by experts in question seven. As the most coveted trophy sought after by players in the NHL, it is no wonder that the panel of experts recommended that the voting results for the Hart Memorial Trophy should be *very important* ($\mu = 8.2$) in determining the salary of a NHL forward (see Table 7).

The seventh superstar variable to be considered by the panel of NHL experts was the voting results for the *Conn Smythe Trophy*. The Conn Smythe Trophy is “[a]n annual award to the most valuable player for his team in the playoffs...as selected by the Professional Hockey Writers’ Association at the conclusion of the final game in the Stanley Cup Finals” (National Hockey League, 2002, p. 202). As noted by one expert, while it is an honour to receive this award, it “...is only reflective of 1½ months of work, where the Hart is for 7 months”. As such, it would be expected that this variable would have a lower mean value than the Hart Memorial Trophy voting. Nonetheless, NHL experts proposed that Conn Smythe Trophy voting should also be *very important* ($\mu = 7.5$) in resolving the salaries of NHL forwards (see Table 7).

The final superstar variable to be gauged by the panel of legitimized experts in question seven was *Lester B. Pearson Award voting*. Awarded annually to the NHL’s most outstanding player, the Lester B. Pearson Award winner often coincides with that of the Hart Memorial Trophy winner (same winner on 21 of 32 occasions from 1971-2002) (National Hockey League, 2002). Where these two awards differ is in the manner by which each is selected. While the winner of the Hart Memorial Trophy is determined by the Professional Hockey Writers’ Association (National Hockey League, 2002), the Lester B. Pearson Award is selected by members of the National Hockey League Players’ Association (National Hockey League, 2002). In referring to the rationale provided by one of the experts participating in this study, “to be selected by your peers would be a great honour....” As such, the expert panel recommended that voting for the Lester B. Pearson Award should also be regarded as *very important* ($\mu = 7.9$) in determining the salary of a NHL forward (see

Table 7).

Each of the variables in question seven were deemed to be at least *somewhat important* ($\mu \geq 2.5$) by the panel of legitimized experts in deciding the salary of a NHL forward. Given this mean result, each variable was further considered in Rounds Two and Three so that they could be included in the final computation of the equitable compensation model being proposed in this study. In addition, experts were once again given the opportunity to put forward any additional superstar variables that they felt were relevant in question eight. In spite of being furnished with this opportunity, no further superstar variables were presented.

Section A - Question Eight:

Question eight in Section 'A' served to evaluate how important various types of *Goals* should be in determining the salary of a NHL forward. While not specifically addressing one of the seven salary factors which served as the basis for the construction of the compensation model being proposed in this study, appraising the various types of goals that could be realized by NHL forwards helped in further breaking down the *Offensive Performance* salary factor. For this study, eight different types of goals were assessed by the panel of experts: *Even-strength goals*, *Power-play goals*, *Short-handed goals*, *Game-winning goals*, *Game-tying goals*, *Clutch goals*, *Blowout goals*, and *Penalty-shot goals*.

Firstly, the NHL experts participating in this research study suggested that *Even-strength goals*, defined as those scored when teams are playing at full-strength (five on five, plus goaltenders) (CNN/Sports Illustrated, 2001a), should be *important* ($\mu = 7.4$) in determining the salary of a NHL forward (see Table 8). Likewise, the expert panel indicated

Table 8 **Types of Goals - Round 1**

Variable	Mean	SD	Value
Even-strength goals	7.4	1.6	Important
Power-play goals	7.3	1.4	Important
Short-handed goals	6.7	1.9	Important
Game-winning goals	7.4	1.8	Important
Game-tying goals	6.9	1.8	Important
Clutch goals	7.4	2.1	Important
Blowout goals	3.7	2.0	Somewhat Important
Penalty-shot goals	3.6	2.3	Somewhat Important

that *Power-play goals*, operationally defined as those scored “...by a club while it has a manpower advantage due to an opponent’s penalty (National Hockey League, 2000, p. 13/1), should be *important* ($\mu = 7.3$) in computing the salary of a forward in the NHL (see Table 8). Similarly, it was proposed that *Short-handed goals*, which are those scored by a team while it has a manpower disadvantage due to the assessment of a penalty (National Hockey League, 2000), should also be *important* ($\mu = 6.7$) in establishing salaries for NHL forwards (see Table 8).

Given their relative significance in determining game outcomes, *Game-winning goals*, regarded as those which place a team one goal ahead of its opponent (National Hockey League, 2000), were recommended by the NHL experts participating in this study to be *important* ($\mu = 6.7$) in estimating salaries for NHL forwards (see Table 8). Further, it was advised by the hockey experts that *Game-tying goals*, which pertain to “the final goal in a

tie game” (National Hockey League, 2000, p. 13/1), should also be considered *important* ($\mu = 6.9$) in estimating salaries for NHL forwards (see Table 8). Defined as those goals scored “...in [overtime] and in the last 10 minutes of the 3rd period, when the score difference is zero or one goal (STATS, 2000, p. 563), *Clutch goals* were also regarded by the NHL experts to be *important* ($\mu = 7.4$) in delimiting the salary of a NHL forward (see Table 8).

Two other types of goals were included in question eight but were not viewed as favourably as those previously-discussed. According to the NHL experts participating in this study, *Blowout goals*, defined as those scored at “...any time the score difference is five goals or greater” (STATS, 2000, p. 563), were resolved to be only *somewhat important* ($\mu = 3.7$) in establishing the salary of a NHL forward (see Table 8). Similarly, *Penalty-shot goals*, identified as “a free shot awarded to a player who was illegally interfered with, preventing him from a clear scoring opportunity; the shot is taken with only the goalie guarding against it” (CNN/Sports Illustrated, 2001a), were also expressed to be only *somewhat important* ($\mu = 3.6$) in establishing the salary of a NHL forward (see Table 8).

While the opportunity was provided in question eight for experts to suggest additional types of goals, no further goal types were submitted for further consideration. Furthermore, each of the types of goals presented in question eight met the minimum standards ($\mu \geq 2.5$) to be considered in the final determination of the equitable compensation model being proposed in this study.

Section A - Question Nine:

Similar to the way in which question eight supported further refinement of the Offensive Performance salary factor, question nine in Section ‘A’ requested NHL experts to

Table 9 **Types of Assists - Round 1**

Variable	Mean	SD	Value
Even-strength assists	7.2	1.6	Important
Power-play assists	6.9	1.6	Important
Short-handed assists	6.4	1.9	Important
Clutch assists	6.8	2.0	Important
Blowout assists	4.1	2.1	Somewhat Important

rate how important various types of *Assists* should be in determining the salary of an NHL forward. In total, five different types of assists were rated by the expert respondents: *Even-strength assists*, *Power-play assists*, *Short-handed assists*, *Clutch assists*, and *Blowout assists*. The definition for each type of assist outlined in question nine can be ascribed to the definitions for each of the corresponding types of goals.

All of the assists identified in question nine met the minimum requirements ($\mu \geq 2.5$) to be considered in the establishment of the equitable compensation model being proposed in this study. In achieving this result, *Even-strength assists* ($\mu = 7.2$), *Power-play assists* ($\mu = 6.9$), *Short-handed assists* ($\mu = 6.4$), and *Clutch assists* ($\mu = 6.8$) were all deemed to be *important* in determining the base salary of a NHL forward, while *Blowout assists* ($\mu = 4.1$) were considered to be only *somewhat important* in establishing this same outcome (see Table 9).

As was the case for each and every question in Section 'A', for question nine NHL experts were furnished with the opportunity to suggest any additional types of assists that

may be relevant in determining the salary of a NHL forward. Interestingly, one expert suggested that it may be worthwhile to differentiate between the ‘first’ and ‘second’ assists on goals scored based on the presumption that ‘first’ assists would play a more significant role in the outcome of the goal. While this is an interesting point of discussion, the NHL *Official Guide & Record Book* (2002) does not recognize the differentiation between ‘first’ and ‘second’ assists in publishing the registry of player statistics. Given that assists on goals scored are noted in sequential order in game reports (see Appendix L), it would not be unreasonable to consider this suggestion in future studies. However, due to the lack of availability of such statistics at the time that this research study was being conducted, it was not feasible to further differentiate the previously mentioned types of assists into ‘first’ and ‘second’ for the sake of the equitable compensation model being proposed.

Section B - Question One:

Section ‘B’ of Round One consisted of one question that required expert respondents to indicate the relative importance of the various *Salary Factors* that were previously dissected in Section ‘A’. Specifically, NHL experts were allocated *100 importance points* which they were required to utilize in assigning value to each salary factor based on the relative importance these factors should have in determining the salary of a NHL forward. The following salary factors were evaluated by the panel of NHL hockey experts in Section ‘B’: *Offensive Performance, Defensive Performance, Leadership, Robustness, Fan Appeal, Rookie, and Superstar*.

In allocating points to each of the aforementioned salary factors, experts were asked to take into consideration the variables that are responsible for composing each factor

Table 10 **Salary Factors - Round 1**

Salary Factor	Mean	SD	CV
Offensive Performance	37.1	19.2	51.7
Defensive Performance	20.0	9.2	46.0
Leadership	14.1	6.4	45.3
Superstar	13.6	18.0	132.8
Robustness	5.9	3.1	52.7
Rookie	4.7	4.9	104.4
Fan Appeal	3.9	3.9	101.6

throughout questions one to seven in Section ‘A’. For example, in allocating *importance points* to the *Offensive Performance* salary factor, experts were to consider that this factor was comprised of such variables as: goals, assists, points, points per game, shots on goal, shooting percentage, total face-offs, and face-off winning percentage. The results obtained from the expert panel in Round One (see Table 10) suggested that more emphasis should be placed on the *Offensive Performance* ($\mu = 37.1$ points), *Defensive Performance* ($\mu = 20.0$ points), *Leadership* ($\mu = 14.1$ points), and *Superstar* ($\mu = 13.6$ points) salary factors, than the *Robustness* ($\mu = 5.9$ points), *Rookie* ($\mu = 4.7$ points), and *Fan Appeal* ($\mu = 3.9$ points) salary factors in determining the salary of a NHL forward.

While respondents had the opportunity to add any additional salary factors that they felt should be important to consider in the construction of equitable compensation model, no additional salary factors were proposed by the experts. Dissimilar to the variables that the experts were required to rate in Section ‘A’, *all* of the salary factors listed in Section ‘B’

were to be considered further in Rounds Two and Three.

Round Two

The Second Round of questioning was mailed out to the 16 NHL experts who participated in the initial Round of questioning. Following the initial mail-out of the Round Two survey, and a subsequent reminder notice, the researcher received eight responses in Round Two. Of the eight NHL experts who submitted replies from the Second Round of questioning, two of the experts continued using the on-line, World Wide Web-based questionnaire, while the remaining six opted to submit their responses via letter-post using the pen and paper-based version. Interesting to note was that upon being provided with the option, one of the experts who submitted his response via the World Wide Web in Round One, elected to continue participating in the study by utilizing the pen and paper-based version of the survey in Round Two.

Similar to the First Round of questioning, Round Two was composed of ten questions broken down into two different sections (see Appendix M). In Section 'A' of Round Two, the purpose was to go beyond identifying which variables should be important in determining the salary of a NHL forward, to delineating how important each variable should be. To accomplish this goal, the researcher provided the respondents with 100 points in each question and requested that they indicate the number of points that they would assign to each variable based on the relative importance they should have in determining the composition of each salary factor. In doing so, the respondents provided a percentage weighting for each variable within each salary factor which could then be applied in computing the salary of a NHL forward. As prescribed by the modified Delphi technique being employed in this study,

Table 11 **Offensive Performance Variables - Round 2**

Variable	Mean	SD	CV
Goals	34.3	17.9	52.2
Assists	18.4	8.2	44.5
Points per Game	15.0	10.4	69.4
Points	14.0	8.6	61.3
Face-off Winning Percentage	6.6	3.5	53.3
Total Face-offs	5.0	2.9	57.7
Shots on Goal	4.7	3.7	79.1
Shooting Percentage	2.0	2.5	125.8

and to assist the experts in making their decisions in Round Two, the rationales accumulated by the NHL experts in Section 'A' of Round One were listed for each question.

Section A - Question One:

In question one of Section 'A,' the expert respondents were asked to indicate the number of points that they would assign to each *Offensive Performance* variable based on the importance they should have in determining the salary of a NHL forward. The results obtained from the relative weighting of variables in question one (see Table 11) suggested that *Goals* ($\mu = 34.3$ points) were far more important than any of the other offensive performance variable in determining the salary of a NHL forward. As one expert put it, "being able to finish depends on what is passed to you". Therefore, *Assists* ($\mu = 18.4$ points) were suggested to be the second most important variable, followed closely by *Points per Game* ($\mu = 15.0$ points) and *Points* ($\mu = 14.0$ points). *Face-off Winning Percentage* ($\mu = 6.6$

Table 12 **Defensive Performance Variables - Round 2**

Variable	Mean	SD	CV
Frank J. Selke Trophy voting	25.0	10.8	43.2
Plus / Minus Rating	21.4	7.5	34.9
Total number of Shots Blocked	20.0	10.4	52.0
Total number of Giveaways	17.9	8.1	45.3
Total number of Takeaways	15.7	12.4	78.9

points), *Total Face-offs* ($\mu = 5.0$ points), *Shots on Goal* ($\mu = 4.7$ points), and *Shooting Percentage* ($\mu = 2.0$ points) were also included in the analysis of question one.

Section A - Question Two:

Question two of Section 'A' required the panel of NHL experts to evaluate the relative importance that various *Defensive Performance* variables should have in determining the salary of a forward in the NHL. The Round Two results began to suggest that *Frank J. Selke Trophy voting* ($\mu = 25.0$ points), *Plus / Minus Rating* ($\mu = 21.4$ points) and *Total number of Shots Blocked* ($\mu = 20.0$ points) should be the most important Defensive Performance measures, with the *Total number of Giveaways* ($\mu = 17.9$ points) and *Total number of Takeaways* ($\mu = 15.7$ points) falling closely behind (see Table 12).

Section A - Question Three:

The expert panel was required to assess how important selected *Leadership* variables should be in establishing the salary of a NHL forward. It became clear that the various experiential measures and captaincy were deemed more favourably than trophy voting for

Table 13 Leadership Variables - Round 2

Variable	Mean	SD	CV
Experience (Ice Time)	22.9	16.3	71.3
Experience (Games Played)	17.9	8.1	45.3
Captaincy	17.1	17.3	100.8
Experience (Career Games)	15.0	6.5	43.0
Experience (Career Years)	14.3	6.1	42.5
Lady Byng Memorial Trophy voting	5.7	5.3	93.5
King Clancy Memorial Trophy voting	5.0	5.8	115.5
Bill Masterton Memorial Trophy voting	2.1	2.7	124.7

this salary factor (see Table 13). In terms of *Experience* measures, *Ice Time* ($\mu = 22.9$ points), *Games Played* ($\mu = 17.9$ points), *Career Games* ($\mu = 15.0$ points), and *Career Years* ($\mu = 14.3$ points) were all viewed favourably by the experts with respect to their importance in determining the salary of a NHL forward. Similarly, *Captaincy* ($\mu = 17.1$ points) was judged to be quite important, while *Lady Byng Memorial Trophy voting* ($\mu = 5.7$ points), *King Clancy Memorial Trophy voting* ($\mu = 5.0$ points), and *Bill Masterton Memorial Trophy voting* ($\mu = 2.1$ points) were noticeably less important in suggesting a player's relative worth.

Section A - Question Four:

In establishing the relative importance of various *Robustness* variables in question four, the NHL experts proposed that *Hits* ($\mu = 30.0$ points) was a superior measure compared to any of the various types of penalties in establishing the base salary of a NHL forward (see Table 14). In order of perceived importance, the *Number of Fighting Penalties* ($\mu = 18.3$

Table 14 Robustness Variables - Round 2

Variable	Mean	SD	CV
Hits	30.0	11.4	38.0
Number of Fighting Penalties	18.3	5.2	28.2
Number of Roughing Penalties	14.2	8.6	60.8
Penalties in Minutes	13.3	10.8	81.0
Number of Major Penalties	12.5	9.4	74.8
Number of Minor Penalties	11.7	9.3	79.8

points), *Number of Roughing Penalties* ($\mu = 14.2$ points), *Penalties in Minutes* ($\mu = 13.3$ points), *Number of Major Penalties* ($\mu = 12.5$ points), and *Number of Minor Penalties* ($\mu = 11.7$ points) were also considered in this analysis.

Section A - Question Five:

Question five in Section ‘A’ required the experts to evaluate the relative importance of two *Fan Appeal* variables in determining the salaries of NHL forwards. Indicative of a player’s fan appeal over a longer period of time, and in acknowledging that “fan appeal sells tickets”, the expert panel suggested that the *Total number of Career All-Star Game Starting Lineups* ($\mu = 59.3$ points) should be more important than the results from the previous

Table 15 Fan Appeal Variables - Round 2

Variable	Mean	SD	CV
Total Number of Career All-Star Game Starting Lineups	59.3	14.8	25.0
All-Star Game Fan balloting	40.7	14.8	36.5

Table 16 **Rookie Variables - Round 2**

Variable	Mean	SD	CV
Calder Memorial Trophy voting	32.9	12.5	38.2
Draft Selection	25.7	12.4	48.2
NHL Rookie of the Month selections	17.1	16.8	98.0
NHL All-Rookie Team balloting	14.3	4.5	31.5
NHL Central Scouting Bureau rating	10.0	7.6	76.4

season's *All-Star Game Fan Balloting* ($\mu = 40.7$ points) in determining the salary of a NHL forward (see Table 15).

Section A - Question Six:

In question six, the panel of NHL experts was asked to indicate the number of points that they would assign to various *Rookie* variables based on the importance they should have in determining the salary of a NHL forward. The voting results for the *Calder Memorial Trophy* was deemed to be the most important ($\mu = 32.9$ points) of the *Rookie* variables being considered in this analysis, with *Draft Selection* ($\mu = 25.7$ points) also considered to be relatively important in establishing the base salary for NHL forwards (see Table 16). Closing out the analysis in question six were *NHL Rookie of the Month selections* ($\mu = 17.1$ points), *NHL All-Rookie Team balloting* ($\mu = 14.3$ points), and *NHL Central Scouting Bureau rating* ($\mu = 10.0$ points).

Table 17 **Superstar Variables - Round 2**

Variable	Mean	SD	CV
Hart Memorial Trophy voting	32.9	20.8	63.3
Conn Smythe Trophy voting	13.6	9.9	72.8
Lester B. Pearson Award voting	12.9	9.06	70.5
NHL Player of the Month selections	10.7	10.6	98.7
NHL Player of the Week selections	10.0	7.6	76.4
All-Star Team balloting	9.3	8.4	90.3
Game Star Points	6.4	3.8	58.8
Bud Light NHL All-Star Game MVP Award selection	4.3	4.5	105.0

Section A - Question Seven:

Of the eight *Superstar* variables that were appraised by the expert panel in question seven, *Hart Memorial Trophy voting* ($\mu = 32.9$ points) was suggested to be far more important than any other variable in determining the salary of a NHL forward (see Table 17). Following well behind in the analysis of *Superstar* variables are *Conn Smythe Trophy voting* ($\mu = 13.6$ points), *Lester B. Pearson Award voting* ($\mu = 12.9$ points), *NHL Player of the Month selections* ($\mu = 10.7$ points), *NHL Player of the Week selections* ($\mu = 10.0$ points), and *All-Star Team balloting* ($\mu = 9.3$ points). Found to be far less important by the expert panel at the conclusion of Round Two were *Game Star Points* ($\mu = 6.4$ points) and *Bud Light NHL All-Star Game MVP Award selection* ($\mu = 4.3$ points).

Table 18 **Types of Goals - Round 2**

Variable	Mean	SD	CV
Even-strength goals	27.1	9.1	33.4
Power-play goals	18.6	12.5	67.2
Game-winning goals	15.7	6.7	42.8
Clutch goals	14.3	8.4	58.7
Short-handed goals	11.4	3.8	33.1
Game-tying goals	7.9	4.9	62.1
Blowout goals	2.9	2.7	93.5
Penalty-shot goals	2.1	2.7	124.7

Section A - Question Eight:

Question eight of Section 'A' required the expert panel to evaluate the relative importance of eight types of *Goals*. Upon reviewing the results from the Second Round of questioning, it became clear that *Even-strength goals* ($\mu = 27.1$ points) were supported as being the most important by the experts (see Table 18). Relatively less important in this category were *Power-play goals* ($\mu = 18.6$ points), *Game-winning goals* ($\mu = 15.7$ points), *Clutch goals* ($\mu = 14.3$ points), and *Short-handed goals* ($\mu = 11.4$ points). Found to be obviously less important in determining the salary of a NHL forward were *Game-tying goals* ($\mu = 7.9$ points), *Blowout goals* ($\mu = 2.9$ points), and *Penalty-shot goals* ($\mu = 2.1$ points).

Table 19 **Types of Assists - Round 2**

Variable	Mean	SD	CV
Even-strength assists	26.4	8.5	32.2
Power-play assists	25.0	10.0	40.0
Clutch assists	22.6	9.4	41.5
Short-handed assists	17.1	8.1	47.2
Blowout assists	8.9	7.1	80.5

Section A - Question Nine:

As the basis for the final question of Section 'A', the NHL experts were required to appraise the relative importance of various types of *Assists* in establishing the NHL forwards' salaries. Similar to the case in question eight, *Even-strength assists* ($\mu = 26.4$ points) were deemed to be most important following closely behind by *Power-play assists* ($\mu = 25.0$ points), and *Clutch assists* ($\mu = 22.6$ points). Closing out the remaining variables in this question were *Short-handed assists* ($\mu = 17.1$ points) and *Blowout assists* ($\mu = 8.9$ points).

Section B - Question One:

In Section 'B' of Round Two, the experts were provided with the mean of the responses from Round One for each of the seven salary factors and were requested to reconsider their original point distributions, in light of this new information, relative to how important each factor should be in deciding the salary of a NHL forward. As indicated previously, it was anticipated that individual respondents would move towards consensus by altering their judgements on particular items in favour of conforming to group responses.

Table 20 Salary Factors - Round 2

Salary Factor	Mean		SD		CV	
	R1	R2	R1	R2	R1	R2
Offensive Performance	37.1	41.3	19.2	12.7	51.7	30.9
Defensive Performance	20.0	18.8	9.2	5.8	46.0	31.1
Leadership	14.1	11.9	6.4	5.3	45.3	44.7
Superstar	13.6	11.9	18.0	8.0	132.8	67.3
Rookie	4.7	6.9	4.9	5.9	104.4	86.4
Robustness	5.9	6.3	3.1	4.4	52.7	70.9
Fan Appeal	3.9	3.1	3.9	2.6	101.6	82.8

As such, the following discussion will address changes to the mean scores, standard deviations, and coefficients of variation for the seven salary factors included in this study.

The results from Section 'B' in the Second Round of questioning indicated that the *Offensive Performance* ($\mu = 41.3$ points), *Rookie* ($\mu = 6.9$ points), and *Robustness* ($\mu = 6.3$ points) salary factors saw marginal increases in relative importance in composing the salary of a NHL forward (see Table 20). In achieving these results, *Defensive Performance* ($\mu = 18.8$ points), *Leadership* ($\mu = 11.9$ points), *Superstar* ($\mu = 11.9$ points), and *Fan Appeal* ($\mu = 3.1$ points) all suffered marginal decreases in relative importance.

While establishing the relative weighting for these salary factors was the primary goal of the modified Delphi methodology being utilized in this study, these weightings would have little value to the researcher if convergence was not accomplished in the process. As a means of gauging convergence, the researcher was able to examine the changes in standard

deviations and coefficients of variation for the salary factors from Round One to Round Two to determine if convergence was occurring. In both cases, a negative result is indicative of the expert panel's convergence in opinion regarding the relative importance of various salary factors as they pertain to establishing the salary of a NHL forward.

In all, five salary factors saw a reduction in their standard deviation and their coefficient of variation in Round Two: *Superstar* ($\Delta\sigma = -10.0$; $\Delta CV = -65.5$), *Offensive Performance* ($\Delta\sigma = -6.4$; $\Delta CV = -20.8$), *Defensive Performance* ($\Delta\sigma = -3.4$; $\Delta CV = -14.9$), *Fan Appeal* ($\Delta\sigma = -1.3$; $\Delta CV = -18.8$), and *Leadership* ($\Delta\sigma = -1.1$; $\Delta CV = -0.6$). Conversely, the *Rookie* ($\Delta\sigma = 1.0$; $\Delta CV = -18.0$) salary factor saw a marginal increase in its standard deviation, while witnessing a marked decrease in its coefficient of variation, while *Robustness* ($\Delta\sigma = 1.3$; $\Delta CV = 18.2$) observed increases in both measures in Round Two.

Round Three

The Third and final Round of questioning was mailed out to the eight NHL experts who completed the Second Round of questioning. Following the initial mail-out of the Round Three survey (see Appendix N), and a subsequent reminder notice, the researcher received seven responses in Round Three. Of the replies received by the researcher in Round Three, all seven of the experts elected to submit their responses via letter-post using the pen and paper-based version despite being provided with the option to use the on-line, World Wide Web-based version of the questionnaire.

In both Sections of Round Three, the experts were provided with the mean of the responses for each variable and factor assessed in Round Two as well as the various

rationales that were put forward in the previous two Rounds. In light of this new information, the NHL experts were requested to reconsider their original point distributions relative to how important each factor should be in deciding the salary of a NHL forward. As indicated previously, it was anticipated that individual respondents would move towards consensus by altering their judgements on particular items in favour of conforming to group responses.

As important as it was to establish the relative weighting for the respective performance and non-performance variables and grouped salary factors in Round Three, these weightings would have little value to the researcher if convergence was not achieved in the process. Similar to the manner in which this was handled in Section 'B' of Round Two, the researcher examined the changes in standard deviations and coefficients of variation for the 55 variables and seven salary factors assessed in Round Three to determine if convergence was occurring. In all cases, a negative result would be indicative of the expert panel's convergence in opinion regarding the relative importance of various salary factors as they pertain to establishing the salary of a NHL forward.

Section A - Question One:

The first question in Section 'A' required experts to reconsider their previous convictions with regard to the relative importance that various *Offensive Performance* variables should have in determining the salary of a NHL forward. In this final assessment, the researcher witnessed marginal increases in the relative values for *Goals* ($\mu = 35.0$ points), *Assists* ($\mu = 18.6$ points), *Points* ($\mu = 15.0$ points), *Face-off Winning Percentage* ($\mu = 7.0$ points), *Shots on Goal* ($\mu = 4.9$ points), and *Shooting Percentage* ($\mu = 2.8$ points) (see Table

Table 21 **Offensive Performance Variables - Round 3**

Variable	Mean		SD		CV	
	R2	R3	R2	R3	R2	R3
Goals	34.3	35.0	17.9	6.5	52.2	18.4
Assists	18.4	18.6	8.2	4.8	44.5	25.6
Points	14.0	15.0	8.6	2.9	61.3	19.2
Points per Game	15.0	12.9	10.4	3.9	69.4	30.6
Face-off Winning Percentage	6.6	7.0	3.5	4.1	53.3	58.3
Shots on Goal	4.7	4.9	3.7	3.7	79.1	75.6
Total Face-offs	5.0	3.9	2.9	2.3	57.7	60.7
Shooting Percentage	2.0	2.8	2.5	3.7	125.8	131.8

21). Alternatively, decreased values were established for *Points per Game* ($\mu = 12.9$ points), and *Total Face-offs* ($\mu = 3.9$ points).

Based on the responses from the Third Round of questioning, the researcher witnessed convergence in both measures amongst four of the eight variables listed in question one: *Goals* ($\Delta\sigma = -11.4$; $\Delta CV = -33.8$), *Points per Game* ($\Delta\sigma = -6.5$; $\Delta CV = -38.8$), *Points* ($\Delta\sigma = -5.7$; $\Delta CV = -42.1$), and *Assists* ($\Delta\sigma = -3.4$; $\Delta CV = -18.9$) (see Table 21). A fifth variable, *Shots on Goal* ($\Delta\sigma = 0.0$; $\Delta CV = -3.5$), saw no change in standard deviation and a reduction in the coefficient of variation, while *Total Face-offs* ($\Delta\sigma = -0.5$; $\Delta CV = 2.9$) observed a marginal reduction in standard deviation but an increase in the coefficient of variation. The final two variables in question one, *Face-off Winning Percentage* ($\Delta\sigma = 0.6$; $\Delta CV = 5.0$) and *Shooting Percentage* ($\Delta\sigma = 1.2$; $\Delta CV = 6.0$), both

Table 22 **Defensive Performance Variables - Round 3**

Variable	Mean		SD		CV	
	R2	R3	R2	R3	R2	R3
Frank J. Selke Trophy voting	25.0	28.0	10.8	2.7	43.2	9.8
Plus / Minus Rating	21.4	22.0	7.5	5.7	34.9	25.9
Total number of Shots Blocked	20.0	19.0	10.4	4.2	52.0	22.0
Total number of Giveaways	17.9	17.0	8.1	4.5	45.3	26.3
Total number of Takeaways	15.7	14.0	12.4	4.2	78.9	29.9

saw marginal increases in the standard deviation and minor increases coefficient of variation.

Section A - Question Two:

Question two of Section 'A' asked the NHL experts to reexamine their responses from the previous Round with regard to how important, on a relative scale, the previously-identified *Defensive Performance* variables should have in determining the base salaries of NHL forwards. In this Third and final Round of questioning, the researcher noted minor increases in the relative values for *Frank J. Selke Trophy voting* ($\mu = 28.0$ points) and *Plus / Minus Rating* ($\mu = 22.0$ points) while experiencing minor decreases in the relative values for the *Total number of Shots Blocked* ($\mu = 19.0$ points), the *Total number of Giveaways* ($\mu = 17.0$ points), and the *Total number of Takeaways* ($\mu = 14.0$ points) (see Table 22).

With respect to convergence, all five Defensive Performance variables listed in question two showed a decrease in both the standard deviation and coefficient of variation measures in Round Three: *Total number of Takeaways* ($\Delta\sigma = -8.2$; $\Delta CV = -49.0$), *Frank J.*

Table 23 Leadership Variables - Round 3

Variable	Mean		SD		CV	
	R2	R3	R2	R3	R2	R3
Experience (Ice Time)	22.9	20.8	16.3	3.8	71.3	18.1
Experience (Games Played)	17.9	20.8	8.1	3.8	45.3	18.1
Captaincy	17.1	16.7	17.3	2.6	100.8	15.5
Experience (Career Years)	14.3	15.0	6.1	3.2	42.5	21.1
Experience (Career Games)	15.0	14.7	6.5	3.3	43.0	22.3
King Clancy Memorial Trophy voting	5.0	4.5	5.8	2.7	115.5	60.9
Lady Byng Memorial Trophy voting	5.7	3.8	5.3	3.5	93.5	91.0
Bill Masterton Memorial Trophy voting	2.1	3.7	2.7	3.5	124.7	95.5

Selke Trophy voting ($\Delta\sigma = -8.1$; $\Delta CV = -33.4$), *Total number of Shots Blocked* ($\Delta\sigma = -6.2$; $\Delta CV = -30.0$), *Total number of Giveaways* ($\Delta\sigma = -3.6$; $\Delta CV = -19.0$), and *Plus / Minus* ($\Delta\sigma = -1.8$; $\Delta CV = -9.0$) (see Table 22).

Section A - Question Three:

Question three requested the panel of NHL experts to assess the relative importance that various *Leadership* variables should have on the salary of a NHL forward. In this Third and final Round of questioning, *Experience (Games Played)* ($\mu = 20.8$ points), *Experience (Career Years)* ($\mu = 15.0$ points), and *Bill Masterton Memorial Trophy voting* ($\mu = 3.7$ points) all saw an increase in their relative values (see Table 23). In contrast, *Experience (Ice Time)* ($\mu = 28.0$ points), *Captaincy* ($\mu = 16.7$ points), *Experience (Career Games)* ($\mu = 14.7$ points), *King Clancy Memorial Trophy voting* ($\mu = 4.5$ points), and *Lady Byng Memorial*

Trophy voting ($\mu = 3.8$ points) all experienced decreases in relative importance.

Of the eight *Leadership* variables examined in question three, seven experienced decreases in standard deviation and coefficient of variation: *Captaincy* ($\Delta\sigma = -14.7$; $\Delta CV = -85.3$), *Experience (Ice Time)* ($\Delta\sigma = -12.5$; $\Delta CV = -53.2$), *Experience (Games Played)* ($\Delta\sigma = -4.3$; $\Delta CV = -27.2$), *Experience (Career Games)* ($\Delta\sigma = -3.2$; $\Delta CV = -20.8$), *King Clancy Memorial Trophy voting* ($\Delta\sigma = -3.0$; $\Delta CV = -54.6$), *Experience (Career Years)* ($\Delta\sigma = -2.9$; $\Delta CV = -21.4$), and *Lady Byng Memorial Trophy voting* ($\Delta\sigma = -1.9$; $\Delta CV = -2.5$) (see Table 23). Alternatively, *Bill Masterton Memorial Trophy voting* ($\Delta\sigma = 0.8$; $\Delta CV = -29.2$) saw a marginal increase in standard deviation while experiencing a reasonably large decrease in coefficient of variation.

Section A - Question Four:

In question four, the expert respondents evaluated how important various *Robustness* variables were, on a relative scale, in determining the salary of a NHL forward. The responses from Round Three indicated an increase in the relative importance of *Hits* ($\mu = 34.3$ points), the *Number of Roughing Penalties* ($\mu = 15.0$ points), and the *Number of Major Penalties* ($\mu = 13.6$ points) (see Table 24). Conversely, the *Number of Fighting Penalties* ($\mu = 16.4$ points), the total number of *Penalties in Minutes* ($\mu = 11.4$ points), and the *Number of Minor Penalties* ($\mu = 9.3$ points) all experienced decreases in relative importance in the Third and final Round of questioning.

Convergence was realized in both measures, for five of the six variables in question four, including: *Penalties in Minutes* ($\Delta\sigma = -6.0$; $\Delta CV = -39.4$), *Number of Minor Penalties*

Table 24 Robustness Variables - Round 3

Variable	Mean		SD		CV	
	R2	R3	R2	R3	R2	R3
Hits	30.0	34.3	11.4	7.9	38.0	22.9
Number of Fighting Penalties	18.3	16.4	5.2	4.8	28.2	28.9
Number of Roughing Penalties	14.2	15.0	8.6	2.9	60.8	19.2
Number of Major Penalties	12.5	13.6	9.4	3.8	74.8	27.9
Penalties in Minutes	13.3	11.4	10.8	4.8	81.0	41.6
Number of Minor Penalties	11.7	9.3	9.3	3.5	79.8	37.2

($\Delta\sigma = -5.9$; $\Delta CV = -42.6$), *Number of Roughing Penalties* ($\Delta\sigma = -5.7$; $\Delta CV = -41.5$), *Number of Major Penalties* ($\Delta\sigma = -5.6$; $\Delta CV = -42.6$), and *Hits* ($\Delta\sigma = -3.5$; $\Delta CV = -15.1$) (see Table 24). As the last remaining variable in question four, the total number of *Number of Fighting Penalties* ($\Delta\sigma = -0.4$; $\Delta CV = 0.8$) saw a decrease in standard deviation but a marginal increase in the coefficient of variation.

Section A - Question Five:

Question five asked respondents to appraise, on a relative scale, how important two *Fan Appeal* variables should be in establishing the salary of NHL forwards. In this final assessment, the researcher witnessed an increase in the relative value of the *Total Number of Career All-Star Game Starting Line-ups* ($\mu = 43.6$ points) and a decrease in the relative importance of *All-Star Game Fan Balloting* ($\mu = 56.4$ points) (see Table 25). In terms of convergence, both *Leadership* variables saw decreases in standard deviations and coefficients

Table 25 Fan Appeal Variables - Round 3

Variable	Mean		SD		CV	
	R2	R3	R2	R3	R2	R3
Total Number of Career All-Star Game Starting Lineups	59.3	56.4	14.8	7.5	25.0	13.3
All-Star Game Fan balloting	40.7	43.6	14.8	7.5	36.5	17.2

of variation: *All-Star Game Fan Balloting* ($\Delta\sigma = -7.4$; $\Delta CV = -19.3$) and *Total Number of Career All-Star Game Starting Line-ups* ($\Delta\sigma = -7.4$; $\Delta CV = -11.8$).

Section A - Question Six:

The sixth question in Round Three required the expert respondents to reconsider their previous point allocations relative to how important various *Rookie* variables should be in determining the salary of a NHL forward. In this final Round of questioning, the expert panel proposed increased relative values for *Calder Memorial Trophy voting* ($\mu = 37.9$ points) and *Draft Selection* ($\mu = 27.1$ points) (see Table 26). Remaining consistent with the previous assessment in Round Two was *NHL All-Rookie Team balloting* ($\mu = 14.3$ points), while *NHL Rookie of the Month selections* ($\mu = 11.4$ points) and *NHL Central Scouting Bureau rating* ($\mu = 9.3$ points) witnessed decreases in relative importance.

With regard to convergence, four of the five variables in question six experienced decreased standard deviation and coefficient of variation measures in Round Three: *NHL Rookie of the Month selections* ($\Delta\sigma = -9.3$; $\Delta CV = -32.5$), *Calder Memorial Trophy voting* ($\Delta\sigma = -8.6$; $\Delta CV = -27.8$), *Draft Selection* ($\Delta\sigma = -6.7$; $\Delta CV = -27.3$), and *NHL Central*

Table 26 **Rookie Variables - Round 3**

Variable	Mean		SD		CV	
	R2	R3	R2	R3	R2	R3
Calder Memorial Trophy voting	32.9	37.9	12.5	3.9	38.2	10.4
Draft Selection	25.7	27.1	12.4	5.7	48.2	20.9
NHL All-Rookie Team balloting	14.3	14.3	4.5	4.5	31.5	31.5
NHL Rookie of the Month selections	17.1	11.4	16.8	7.5	98.0	65.5
NHL Central Scouting Bureau rating	10.0	9.3	7.6	3.5	76.4	37.2

Scouting Bureau Rating ($\Delta\sigma = -4.2$; $\Delta CV = -39.2$) (see Table 26). The fifth variable to be assessed by the expert panel in question six, *NHL All-Rookie Team balloting* ($\Delta\sigma = 0.0$; $\Delta CV = 0.0$), demonstrated no change in standard deviation or coefficient of variation in Round Three.

Section A - Question Seven:

In question seven, the NHL experts were requested to assess the relative importance of various *Superstar* variables in establishing the salary of a NHL forward. Of the eight variables listed in this question, *Conn Smythe Trophy voting* ($\mu = 17.9$ points), *Lester B. Pearson Award voting* ($\mu = 14.3$ points), and *Game Star Points* ($\mu = 7.9$ points) all noted increases in relative importance (see Table 27). Furthermore, *Hart Memorial Trophy voting* ($\mu = 32.9$ points) and *Bud Light NHL All-Star Game MVP Award selection* ($\mu = 4.3$ points) witnessed no change in relative value while *NHL Player of the Month selections* ($\mu = 8.3$ points), *NHL Player of the Week selections* ($\mu = 7.4$ points), and *All-Star Team balloting* (μ

Table 27 Superstar Variables - Round 3

Variable	Mean		SD		CV	
	R2	R3	R2	R3	R2	R3
Hart Memorial Trophy voting	32.9	32.9	20.8	4.9	63.3	14.9
Conn Smythe Trophy voting	13.6	17.9	9.9	10.7	72.8	60.2
Lester B. Pearson Award voting	12.9	14.3	9.06	6.1	70.5	42.5
NHL Player of the Month selections	10.7	8.3	10.6	4.7	98.7	56.9
Game Star Points	6.4	7.9	3.8	3.9	58.8	50.1
NHL Player of the Week selections	10.0	7.4	7.6	6.7	76.4	89.9
All-Star Team balloting	9.3	7.1	8.4	6.4	90.3	89.1
Bud Light NHL All-Star Game MVP Award selection	4.3	4.3	4.5	3.5	105.0	80.5

= 7.1 points) experienced decreases in relative importance in the final Round of questioning.

With respect to the level of convergence in question seven, it can be noted that five of the eight *Superstar* variables had decreased measures of standard deviation and coefficient of variation. Included in among these five variables were *Hart Memorial Trophy voting* ($\Delta\sigma = -15.9$; $\Delta CV = -48.4$), *NHL Player of the Month selections* ($\Delta\sigma = -5.9$; $\Delta CV = -41.8$), *Lester B. Pearson Award voting* ($\Delta\sigma = -3.0$; $\Delta CV = -28.0$), *All-Star Team balloting* ($\Delta\sigma = -2.0$; $\Delta CV = -1.2$), and *Bud Light NHL All-Star Game MVP Award selection* ($\Delta\sigma = -1.0$; $\Delta CV = -24.5$) (see Table 27). Alternatively, *Game Star Points* ($\Delta\sigma = 0.2$; $\Delta CV = -8.7$) and *Conn Smythe Trophy voting* ($\Delta\sigma = 0.9$; $\Delta CV = -12.6$) saw marginal increases in standard deviation while still observing decreases in coefficient of variation. Lastly, *NHL Player of*

Table 28 **Types of Goals - Round 3**

Variable	Mean		SD		CV	
	R2	R3	R2	R3	R2	R3
Even-strength goals	27.1	27.9	9.1	7.6	33.4	27.1
Power-play goals	18.6	24.3	12.5	11.0	67.2	45.2
Game-winning goals	15.7	13.6	6.7	3.8	42.8	27.9
Clutch goals	14.3	11.4	8.4	6.0	58.7	52.2
Short-handed goals	11.4	10.7	3.8	3.5	33.1	32.2
Game-tying goals	7.9	7.6	4.9	4.8	62.1	63.3
Blowout goals	2.9	2.4	2.7	2.1	93.5	85.2
Penalty-shot goals	2.1	2.1	2.7	2.3	124.7	105.8

the Week selections ($\Delta\sigma = -1.0$; $\Delta CV = 13.5$) maintained a reduction in the standard deviation while realizing an increase in the coefficient of variation.

Section A - Question Eight:

Question eight gave the expert respondents a last opportunity to reconsider their previous point allocations with regard to the relative importance that various *Types of Goals* should play in calculating the salary of a NHL forward. The results from this final Round of questioning marked an increased importance for *Even-strength goals* ($\mu = 27.9$ points) and *Power-play goals* ($\mu = 24.3$ points) while *Penalty-shot goals* ($\mu = 2.1$ points) experienced no change in relative value (see Table 28). On the contrary, *Game-winning goals* ($\mu = 13.6$ points), *Clutch goals* ($\mu = 11.4$ points), *Short-handed goals* ($\mu = 10.7$ points), *Game-tying goals* ($\mu = 7.6$ points), and *Blowout goals* ($\mu = 2.4$ points) all witnessed decreases in relative

importance.

Relative to changes in standard deviation and coefficient of variation measures, seven of the eight variables evaluated by the NHL experts in question eight achieved convergence. Included amongst these variables were *Game-winning goals* ($\Delta\sigma = -2.9$; $\Delta CV = -15.0$), *Clutch goals* ($\Delta\sigma = -2.4$; $\Delta CV = -6.4$), *Power-play goals* ($\Delta\sigma = -1.5$; $\Delta CV = -22.1$), *Even-strength goals* ($\Delta\sigma = -1.5$; $\Delta CV = -6.3$), *Blowout goals* ($\Delta\sigma = -0.6$; $\Delta CV = -8.3$), *Penalty-shot goals* ($\Delta\sigma = -0.4$; $\Delta CV = -18.9$), and *Short-handed goals* ($\Delta\sigma = -0.3$; $\Delta CV = -0.9$) (see Table 28). The only variable that did not achieve convergence in both measures was *Game-tying goals* ($\Delta\sigma = -0.1$; $\Delta CV = 1.2$) which realized a marginal decrease in standard deviation and minor increase in coefficient of variation scores in Round Three.

Section A - Question Nine:

The final question that the experts were requested to complete in Section 'A' pertained to the relative importance that various *Types of Assists* should have in determining the base salary of NHL forwards. In summarizing the results from this last Round of questioning, increased importance values were attained in *Power-play assists* ($\mu = 29.3$ points) and *Clutch assists* ($\mu = 24.3$ points) whereas no change was witnessed in the mean score for *Even-strength assists* ($\mu = 26.4$ points) (see Table 29). Alternatively, decreases in importance values were noted for *Short-handed assists* ($\mu = 14.3$ points) and *Blowout assists* ($\mu = 5.7$ points). Lastly, convergence was realized in both measures for all five *Types of Assists* in Round Three: *Even-strength assists* ($\Delta\sigma = -4.7$; $\Delta CV = -17.9$), *Clutch assists* ($\Delta\sigma = -4.0$; $\Delta CV = -19.5$), *Power-play assists* ($\Delta\sigma = -2.7$; $\Delta CV = -15.0$), *Short-handed assists*

Table 29 **Types of Assists - Round 3**

Variable	Mean		SD		CV	
	R2	R3	R2	R3	R2	R3
Power-play assists	25.0	29.3	10.0	7.3	40.0	25.0
Even-strength assists	26.4	26.4	8.5	3.8	32.2	14.3
Clutch assists	22.6	24.3	9.4	5.3	41.5	22.0
Short-handed assists	17.1	14.3	8.1	5.3	47.2	37.4
Blowout assists	8.9	5.7	7.1	4.5	80.5	78.7

($\Delta\sigma = -2.7$; $\Delta CV = -9.8$), and *Blowout assists* ($\Delta\sigma = -2.6$; $\Delta CV = -1.8$) (see Table 29).

Section B - Question One:

In Section ‘B’, the NHL experts were provided with a final opportunity to reconsider their previous point allocations in hopes of further clarifying the relative values of the seven *Salary Factors* being utilized in this study. In this final analysis, the *Superstar* ($\mu = 18.6$ points), *Robustness* ($\mu = 6.6$ points) and *Fan Appeal* ($\mu = 3.4$ points) salary factors all witnessed increases in relative importance while the *Offensive Performance* ($\mu = 38.6$ points), *Defensive Performance* ($\mu = 17.9$ points), *Leadership* ($\mu = 10.7$ points) and *Rookie* ($\mu = 4.3$ points) salary factors experienced decreased relative values (see Table 30).

This Third and final Round provided the opportunity to establish further convergence around the mean scores for the *Salary Factors* being assessed in Section ‘B’. In lending further support to the methodology being used in this study, convergence was achieved in both measures for six of the seven salary factors, including: *Leadership* ($\Delta\sigma = -3.4$; ΔCV

Table 30 Salary Factors - Round 3

Salary Factor	Mean			SD			CV		
	R1	R2	R3	R1	R2	R3	R1	R2	R3
Offensive Performance	37.1	41.3	38.6	19.2	12.7	10.3	51.7	30.9	26.7
Superstar	13.6	11.9	18.6	18.0	8.0	8.0	132.8	67.3	43.2
Defensive Performance	20.0	18.8	17.9	9.2	5.8	4.9	46.0	31.1	27.3
Leadership	14.1	11.9	10.7	6.4	5.3	1.9	45.3	44.7	17.6
Robustness	5.9	6.3	6.6	3.1	4.4	3.7	52.7	70.9	56.8
Rookie	4.7	6.9	4.3	4.9	5.9	3.5	104.4	86.4	80.5
Fan Appeal	3.9	3.1	3.4	3.9	2.6	2.4	101.6	82.8	69.1

$= -27.0$), *Rookie* ($\Delta\sigma = -2.5$; $\Delta CV = -5.9$), *Offensive Performance* ($\Delta\sigma = -2.5$; $\Delta CV = -4.2$), *Defensive Performance* ($\Delta\sigma = -0.9$; $\Delta CV = -3.7$), *Robustness* ($\Delta\sigma = -0.7$; $\Delta CV = -14.1$), and *Fan Appeal* ($\Delta\sigma = -0.2$; $\Delta CV = -13.7$) (see Table 30). The final salary factor to be appraised by the NHL experts in Section 'B', *Superstar* ($\Delta\sigma = 0.0$; $\Delta CV = -24.1$) experienced no change in standard deviation but a rather considerable change in coefficient of variation.

CHAPTER V - DISCUSSION OF FINDINGS

Summary of Expert Participation

As noted previously, when conducting Delphi investigations, the validity of the study is only as sound as the credibility of the experts whose opinions are being sought. Relying upon a network of hockey acquaintances, the researcher was successful in securing 16 legitimate hockey experts who had a minimum of five years of experience working in or with the labour market of the NHL. Over the course of their NHL careers, the expert respondents who provided input on the compensation model being proposed in this study collectively participated in 222 NHL seasons or, more specifically, 12,573 regular season and 1,270 playoff games (Diamond, 2000c). As impressive as these statistics may be, even more notable are the personal and team-related achievements that they amassed over the course of their careers including: 13 First-Team and 3 Second-Team All-Star selections, 45 NHL All-Star Games appearances, 2 Hart Memorial Trophies, 1 Conn Smythe Trophy, 3 Lester B. Pearson Awards, 2 Bill Masterton Memorial Trophies, 3 Art Ross Trophies, 1 James Norris Memorial Trophy, 3 Frank J. Selke Trophies, 2 Vezina Trophies, 14 Stanley Cup championships, and 5 Hockey Hall of Fame inductions (Diamond, 2000c). While the researcher has no intention of inferring the survey results and subsequent model design to being representative of the entire NHL population, the collective credibility of the expert respondents assures a higher level of validity.

Over the course of the three Rounds of questioning in this modified Delphi investigation, an expected attrition rate was experienced. There are numerous factors that could have hindered the continued participation of the NHL experts. Previously

acknowledged as a limitation to this study, the inherent uncertainty and tension plaguing the forthcoming collective bargaining between NHL players and owners may have had an impact on experts' willingness to respond. As a result of the previously noted animosity that exists between the players and management, and despite assurances of confidentiality, experts in this study may have opted to withhold their opinions and elected not to participate in subsequent Rounds for fear of the perceived consequences associated with the public availability of the final results.

The decreased response rate in Rounds Two and Three may also have been attributed to the fact that many of the experts who participated in Round One held coaching or management positions in the NHL or one of its affiliate leagues at the time that subsequent surveys were distributed. Consequently, many of these experts would have been otherwise preoccupied and thus, may not have had the time to participate in all three Rounds of questioning as prescribed by the modified Delphi methodology being utilized in this study.

An additional problem that experts may have encountered in Rounds Two and Three is the possibility of experiencing a system shut-down while trying to complete the on-line, World Wide Web-based survey. While this problem may only have affected a small portion of the experts who attempted to participate in these subsequent Rounds, if a shut-down were to have occurred while an expert was completing the on-line, World Wide Web-based survey, the data would not have been received by the researcher. Accordingly, the experts would have been required to re-submit their responses which would have detracted more time from their busy schedules. While the researcher was not notified of any system shut-downs throughout the duration of the study, the possibility exists that a system shut-down

could have contributed to the reduction in replies from experts in Rounds Two and Three.

Model Construction

The results obtained from the three Rounds of questioning in this modified Delphi investigation have yielded the necessary information to construct a compensation model that provides an equitable and objective measure for determining the base salary of a NHL forward. In helping to realize the purpose of this study, the modified Delphi methodology enabled the researcher, with the aid of legitimized NHL experts, to establish the relative importance of fifty-five performance and non-performance variables in determining the salary of NHL forwards. Using these importance measures, the researcher was able to construct a compensation model that visually and mathematically depicts how the salary of a NHL forward could be determined as an alternative to the free-market system that currently exists.

The model consists of a series of concentric circles, which accounts for 100% of the salary of a NHL forward. Each circle is broken down into segments that mathematically and pictorially represent the percentage value of each variable and factor that have been deemed important by the expert panel in determining the salary of a NHL forward (see Figure 1). Working from the inside out, the inner-most circle is composed of the seven *Salary Factors* identified in Section 'B' of this study, while the exterior circles break down these factors into the specific performance and non-performance variables that construct each salary factor, as identified throughout Section 'A'.

For example, the results suggest that *Offensive Performance* should account for 38.6% of a player's base salary. As the model progresses toward the exterior, this particular



Figure 1. Equitable Compensation Model

salary factor is broken down into the eight performance and non-performance variables that factor into a player's *Offensive Performance*. Such variables include *Goals* (35.0%), *Assists* (18.6%), *Points* (15.0%), *Points per Game* (12.9%), *Face-off Winning Percentage* (7.0%), *Shots on Goal* (4.9%), *Total Face-offs Taken* (3.9%), and *Shooting Percentage* (2.8%). In the outermost circle of the model, selected *Offensive Performance* variables, such as *Goals*, are further broken down into the numerous different types, including: *Even-strength Goals* (27.9%), *Power-play Goals* (24.3%), *Game-winning Goals* (13.6%), *Clutch Goals* (11.4%), *Short-handed Goals* (10.7%), *Game-tying Goals* (7.6%), *Blowout Goals* (2.4%), and *Penalty-shot Goals* (2.1%).

Operationalizing the Model

By applying the league's average salary and average scores for each segment of the model from the previous NHL season, it is possible to precisely calculate the base salary of any NHL forward. With the aid of a spreadsheet program, General Managers and/or player representatives can quickly establish the relative value of a NHL forward by simply entering the player's individual performance and non-performance statistics from the previous regular season in specially designated cells. After being introduced to the spreadsheet, each of the fifty-five quantifiable performance and non-performance variables would advance through a series of deflators and multipliers that aid in establishing the final outcome.

Specifically, the first deflator would have the inputted score for each variable divided by the league average (arithmetic mean) to obtain a decimal value. This decimal value is referred to as the 'performance quotient' for the variable undergoing investigation. This performance quotient is then multiplied by the relative importance (percentage value

expressed as a decimal number) of the variable being assessed, as previously established by the panel of NHL experts in this modified Delphi investigation. This new decimal number would then be multiplied by the league's average salary (in US dollars) to determine how much money a player would get paid based on his relative performance in that measure. All fifty-five variables would go through this same process and once the values for each of the variables are established, they are summed to determine the final salary for that player. Appendix O provides a detailed breakdown (in a spreadsheet format) of how the model can be operationalized using hypothetical statistical data and salary figures for four distinct types of players: superstar, enforcer, journeyman, and rookie.

While the achievement of employee equity using league-wide statistical data and salary figures would provide the ideal basis for applying for this model, an alternative way in which this model can be employed is on a club-by-club basis using club-specific measures. In such an application, additional multipliers and deflators can be incorporated into the equation to account for disparities between NHL franchises such as: operating environment (ie., cost of living index, local media broadcast revenue, and taxation concerns), coaching and management strategies or philosophies (ie., profit-maximization versus winning-maximization), Canadian-American dollar exchange rates, club prestige (ie., original six versus expansion and WHA amalgamated franchises), and playoff versus regular-season performances. There are an endless number of ways in which the model can be expanded upon to aid in the administration of the NHL's compensation system to ensure objectivity and equity.

Convergence

While establishing the relative weightings for the numerous variables and salary factors was the primary goal of the modified Delphi methodology utilized in this study, these weightings would have little value to the researcher if convergence was not accomplished in the process. As a means of measuring convergence in this study, the researcher examined the changes in standard deviations and coefficients of variation between Rounds. Regardless of the convergence measurement being employed, smaller numbers are indicative of more convergence around the mean score for each of the salary factors and variables that were included in this study with a score of zero implying that consensus on a particular salary factor or variable has been achieved.

Of the seven salary factors and fifty-five variables that are being considered for inclusion in the equitable compensation model, only seven variables and one salary factor failed to achieve convergence by way of their standard deviation measures in Round Three. Specifically, *Conn Smythe Trophy voting* (3.32%), *Face-off Winning Percentage* (2.70%), *Game Star Points* (1.46%), *Shooting Percentage* (1.07%), and *Bill Masterton Memorial Trophy voting* (0.39%), which collectively accounted for a mere 8.94% of the proposed compensation model, experienced a divergence in opinions by the expert respondents while *Superstar* (18.57%), *Shots on Goal* (1.90%), and *NHL All-Rookie Team voting* (0.61%) experienced no change in standard deviation between Rounds Two and Three. However, it is worth noting that *Superstar* experienced a ten point decrease in standard deviation ($\Delta\sigma = -10.0$) between Rounds One and Two which might suggest that convergence may still be achieved for this particular salary factor regardless of the attrition experienced between

Rounds.

In reference to coefficient of variation measures of convergence, only seven variables failed to achieve decreased coefficient of variation measures in Round Three. Included amongst those where divergence occurred were *Face-off Winning Percentage* (2.70%), *Total Face-offs Taken* (1.51%), *NHL Player of the Week selections* (1.38%), *Number of Fighting Penalties* (1.08%), *Shooting Percentage* (1.07%), and *Game-tying goals* (1.02%). In all, these variables accounted for a mere 8.76% of the proposed compensation model. Additionally, *NHL All-Rookie Team voting* (0.61%) experienced no change in the coefficient of variation between Rounds Two and Three.

In summation, based on changes in standard deviation, the NHL experts that were selected to participate in this study converged in their opinions on 69.98% of the compensation model being proposed, with another 18.57% of the proposed model experiencing what could be termed 'questionable' convergence. With respect to changes in coefficient of variation, the NHL experts converged in their opinions on 90.63% of the proposed compensation model. Such results lend considerable support for the modified Delphi methodology being employed in this study. Based on the results presented here, it could be surmised that if the survey process utilized in this study was repeated an infinite number of times, eventually the expert participants would come to a consensus on their opinions of the relative importance of 69.98% (standard deviation) to 90.63% (coefficient of variation) of the equitable compensation model developed in this study depending on how one chooses to measure convergence. While convergence was not achieved for selected salary factors and variables, these measures were still included in the final design of the

compensation model because each was deemed to be at least somewhat important ($\mu \geq 2.5$) in determining the salary of a NHL forward in the initial Round of questioning.

Practical Implications

One might argue that if a player's compensation was objectively tied to his performance, owners would be much more content in indemnifying them for their relative contribution toward the club's success. Meanwhile, in prescribing to the theoretical underpinnings of expectancy theory, players would be eternally motivated to perform to the best of their abilities given that their compensation would be a direct reflection of their performance. Moreover, players would have little reason to compare and contrast their relative inputs and outputs with other players because the proposed model would already account for performance comparisons around the league. As such, employee equity may be achieved to a greater degree than presently exists in the NHL.

The employment of an equitable compensation model, similar to that which has been developed in this study, also has potential for resolving many of the issues that are directly related to the recent escalation in players' salaries in the NHL. Primarily, the implementation of the proposed model would significantly reduce the adversarial climate that has evolved between players (and their agents) and management as a result of the free-market system that currently exists for the negotiation of player contracts. Since the model is designed to objectively determine a player's annual base salary through quantifiable measures, the only remaining issues to be negotiated between agents and general managers would be the duration of the player's contract and any additional bonus clauses that may be sought by a particular player.

While the NHL compensation system would be experiencing change in proposing this model to league and union officials, the current system of free agency could remain intact. The culmination of these two factors could conceivably reduce the NHL owners' prescription for such cost-containment strategies as a salary cap or payroll tax system. Given that player salaries would no longer be established according to subjective market values, team salary budgets could be more easily regulated and justified according to players' relative performance from the previous season. Furthermore, because the statistical inputs for the model are based on the mean scores and salary from the previous NHL season, player salaries would no longer increase at the exponential rate that they have since the genesis of salary disclosure in the early 1990's.

Recently, numerous members of the NHL community have begun to forecast another labour dispute following the expiration of the current CBA in 2004. While suggesting that such a model could save the NHL from a labour dispute in 2004 might be a little extreme, the model that has been proposed, or at least the process by which it was established, may have the capacity to resolve many of the issues plaguing these forthcoming negotiations. As idealistic as it may seem, adopting the proposed model may not only save the NHL from what some have forecasted as being an 18-month work stoppage (Grant, 2002), it might also eliminate many of the negative externalities associated with such labour disputes.

Even if the proposed model could not be incorporated into the upcoming CBA between the NHL and the NHLPA, there is still the possibility of using such a model to serve as a tool for governing the salary arbitration process. Given the unfavourable consequences associated with the current process, both players and management could benefit from having

some standardized framework for dealing with players who wish to seek salary arbitration when the two negotiating parties cannot come to an agreement on the value of a player's salary. In suggesting that the equitable compensation model that has been developed in this study could assist in reducing the inherent tension that currently afflicts the NHL community, and improve the overall functioning of the league, hockey fans may once again have reason to support the game that they love.

Recommendations for Future Research

Based upon the results of this study, the researcher has generated several recommendations for future research. First and foremost, since all of the experts in the Third and final Round had reverted to the pen and paper-based strategy, using the World Wide Web as a means of collecting data for this demographic should be carefully considered. Regardless of the perceived advantages of using the World Wide Web (ie., overcoming geographic segregation, cost- and time-efficiency), the opportunity costs associated with developing sophisticated web forms capable of handling the data collection required for this type of study were far too high for the number of experts who elected to utilize this data collection technique.

Secondly, since the onset of this study, numerous additional performance and non-performance variables have been made publicly available through the NHLPA website that provide the opportunity for further refinement of the model. For example, *Experience (Ice Time)* could now be further broken down to include *Even-Strength Ice Time*, *Power-Play Ice Time* and *Short-Handed Ice Time*. As well, there were several other variables suggested by the experts that currently do not have a way of being quantified and thus could not be

incorporated into the model (ie., additional measures of *Fan Appeal*). Perhaps future studies could attempt to incorporate these variables into a refined model. In addition, as the model currently exists, only individual performance and non-performance variables have been accounted for. Perhaps future researchers may want to build on this model by including team-oriented measures in the model construction (ie., winning percentage, shutout wins).

Third, this study utilized an expert panel to determine the relative importance / values of the variables being considered in this study. A future study may wish to take this study the next step by working with the NHL and the NHLPA in an attempt to get input from a representative sample of the NHL and NHLPA populations. Such an analysis could be used to support or refute the importance values established in this modified-Delphi investigation while furnishing the opportunity for increased validity and reliability measures in the establishment of the equitable compensation model.

To complement the research that has been done to date, it might also be fruitful to complete a regression analysis of the league's statistical data for the variables that were considered for inclusion in this model to determine if the relative importance of the variables (as proposed by the experts in this study) are in any way consistent with the variables that show a correlation with NHL salaries. If the relative weightings provided by the experts were found to be consistent with the correlations in the regression analysis, this would significantly reinforce the potential for approving the equitable compensation model for use in determining salaries for NHL forwards.

Lastly, the current study only attempts to assess the performance of NHL forwards. Future research should consider evaluating how important specific performance and non-

performance variables of goaltenders and defencemen should be in establishing their salaries.

Similarly, this study only addresses the labour situation in the NHL. However, future studies may wish to take the same approach to establishing an equitable compensation model for other major professional sport leagues such as MLB, NFL, and NBA.

REFERENCES

- Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67, 422-436.
- Adams, J. S. (1965). Inequity in social change. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, 2, 267-299.
- Adams, W., & Brock, J. W. (1997, fall). Monopoly, monopsony, and vertical collusion: Antitrust policy and professional sports. *The Antitrust Bulletin*, 721-747.
- Ahlstrom, D., Si, D., & Kennelly, J. (1999). Free-agent performance in Major League Baseball: Do teams get what they expect? *Journal of Sport Management*, 13, 181-196.
- Alain, M. (1985). An empirical validation of relative deprivation. *Human Relations*, 38(8), 739-749.
- Andrews, I. R. (1967). Wage inequity and job performance: An experimental study. *Journal of Applied Psychology*, 51(1), 39-45.
- Argyrous, G. (2000). *Statistics for social and health research: With a guide to SPSS*. London, UK: Sage Publications.
- Banister, R. (1997). The economics of professional sports. In R. Banister (Ed.), *Economic issues: A Canadian perspective*. Toronto, ON :McGraw Hill.
- Barnes, J. (1996). *Sports and the law in Canada* (3rd ed.). Toronto, ON: Butterworths.
- Bartlett, S. J. (1993). Contract negotiations and salary arbitration in the NHL...an agent's view. *Marquette Sports Law Journal*, 4(1), 1-34.

- Bernstein, M., & Crosby, F. (1980). An empirical examination of relative deprivation theory. *Journal of Experimental Social Psychology*, 16, 442-456.
- Blake, C., Fixter, P., & Moriarty, D. (1993). Contracts in amateur sports and professional athletics. In D. Moriarty, M. Holman, R. Brown, & M. Moriarty (Eds.), *Canadian/American sport, fitness, and the law*. Toronto, ON: Canadian Scholars' Press Inc.
- Bradt, J. A. (1991). Pay for impact. *Personnel Journal*, 70, 76-79.
- Brender, M. (2002, November 15). Pucks and bucks: 11th annual salary survey. *The Hockey News*, 56(11), 10-12.
- Bretz, R. D., Jr. & Thomas, S. L. (1992). Perceived equity, motivation, and final-offer arbitration in Major League Baseball. *Journal of Applied Psychology*, 77, 280-287.
- Bridgle, S. (1988). Less restrictive alternatives for achieving and maintaining competitive balance in professional sports. *Arizona Law Review*, 30, 899-901.
- Brown, E., Spiro, R., & Keenan, D. (1991). Wage and nonwage discrimination in professional basketball: Do fans affect it? *American Journal of Economics and Sociology*, 50, 333-345.
- Buchanan, M. J., & Slottje, D. J. (1996). *Pay and performance in the NBA*. Greenwich, CT: JAI Press.
- Cairns, J., Jennett, N., & Sloane, P. J. (1986). The economics of professional team sports: A survey of theory and evidence. *Journal of Economic Studies*, 12, 3-80.

- Carr, S. C., McLoughlin, D., Hodgson, M., & MacLachlan, M. (1996). Effects of unreasonable pay discrepancies for under- and overpayment on double demotivation. *Genetic, Social, and General Psychology Monographs*, 122, 475-494.
- Carroll, J., Broadhead, R., & Cassel, D. (1999). *1999 Canadian Internet handbook* (Educational ed.). Scarborough, ON: Prentice-Hall Canada Inc.
- Champion, W. T., Jr. (1993). *Sports law in a nutshell*. St. Paul, MN: West Publishing.
- Chelladurai, P. (1999). *Human resource management in sport and recreation*. Champaign, IL: Human Kinetics.
- CNN/Sports Illustrated (2001a, October 2). *Hockey terms and definitions*. Retrieved January 1, 2003 from <http://sportsillustrated.cnn.com/hockey/nhl/news/definitions/>
- CNN/Sports Illustrated (2001b, October 2). *Penalty terms and definitions*. Retrieved January 1, 2003 from <http://sportsillustrated.cnn.com/hockey/nhl/news/penalties/>
- Competition Act, R.S.C. 1985, c. C-34, am. R.S.C. 1985, c. 27 (1st Supp.), s. 189; c. 19 (2nd Supp.), ss. 18-45; c. 34 (3rd Supp.), s. 8; c. 1 (4th Supp.), s. 11; 1990, c. 10 (4th Supp.), s. 18; 1991, c. 37, ss. 29-32; c. 45, ss. 547-550; c. 46, ss. 590-594; c. 47, ss. 714-717; 1992, c. 1, ss. 44-46; c. 14; 1993, c. 34, ss. 50-51; 1995, c. 1, s. 62(1)(d).
- Cowherd, D. M., & Levine, D. I. (1992). Product quality and pay equity between lower-level employees and top management: An investigation of distributive justice theory. *Administrative Science Quarterly*, 37, 302-320.

- Couper, M. P. & Nicholls, W. L. (1998). The history and development of computer assisted survey information collection methods. In M. P. Couper, R. P. Baker, J. Bethlehem, C. Z. F. Clark, J. Martin, W. L. Nicholls, & J. M. O'Reilly (Eds.), *Computer assisted survey information collection*. New York, NY: John Wiley & Sons, Inc.
- Crosby, F. (1976). A model of egotistical relative deprivation. *Psychological Review*, 83, 85-113.
- Dalkey, N. C., & Helmer, O. (1963). An experimental application of the Delphi method to the use of experts. *Management Science*, 9(3), 458-467.
- Davis, J. A. (1959). A formal interpretation of the theory of relative deprivation. *Sociometry*, 22, 280-296.
- Dawes, R. M., Faust, D., & Meehl, P. E. (1989). Clinical versus actuarial judgement. *Science*, 243, 1668-1674.
- Delbecq, A. L., Van de Ven, A. H., & Gustafson, D. H. (1975). *Group techniques for program planning: A guide to nominal group and Delphi processes*. Glenview, IL: Scott, Foresman and Company.
- Diamond, D. (2000a). Giveaways, blocks and time-on-ice: The story behind the NHL real-time scoring system. In D. Diamond (Ed.), *Total hockey: The official encyclopaedia of the National Hockey League* (2nd ed.). Toronto, ON: Dan Diamond and Associates, Inc.
- Diamond, D. (2000b). The NHL entry draft. In D. Diamond (Ed.), *Total hockey: The official encyclopaedia of the National Hockey League* (2nd ed.). Toronto, ON: Dan Diamond and Associates, Inc.

- Diamond, D. (Ed.) (2000c). *Total Hockey: The official encyclopaedia of the National Hockey League* (2nd ed.). Toronto, ON: Dan Diamond and Associates, Inc.
- Dittrich, J. E. & Carrell, M. R. (1979). Organizational equity perceptions, employee job satisfaction, and departmental absence and turnover rates. *Organizational Behaviour and Human Performance*, 24, 29-40.
- Duchon, D., & Jago, A. G. (1981). Equity and the performance of Major League Baseball Players: An extension of Lord and Hohenfeld. *Journal of Applied Psychology*, 66, 728-732.
- Dyer, L., Schwab, D. P., & Theriault, R. D. (1976). Managerial perceptions regarding salary increase criteria. *Personnel Psychology*, 29, 233-242.
- Engelhardt, G. M. (1995). Fighting behavior and winning National Hockey League games: a paradox. *Perceptual and Motor Skills*, 80(2), 416-418.
- Evans, W. M., & Simmons, R. G. (1969). Organizational effects of inequitable rewards: Two experiments in status inconsistency. *Administrative Science Quarterly*, 14(2), 224-237.
- Fischler, St., Fischler, Sh., Hughes, M., Romain, J., & Duplacey, J. (1994). *20th century hockey chronicle*. Lincolnwood, IL: Publications International.
- Foraker, S. J. (1985). The National Basketball Association salary cap: An antitrust violation? *Southern California Law Review*, 59, 157-177.
- Friend, J. (1991). Personnel issues. In B. L. Parkhouse (Ed.), *The management of sport* (pp. 292-310). St. Louis, MO: Mosby.

- Friend, J., & LeUnes, A. (1987). *The systems approach: A paradigm for sports personnel management*. Paper presented at the Second Annual Conference of the North American Society for Sport Management, Windsor, Ontario.
- Frick, B. (1998). Management abilities, player salaries and team performance. *European Journal for Sport Management*, 5(3), 6-22.
- Glass, R. S., & Wood, W. A. (1996). Situational determinants of software piracy: An equity theory perspective. *Journal of Business Ethics*, 15, 1189-1198.
- Grant, P. (2002, June 12). *The standoff cup*. Retrieved April 28, 2003 from http://www.sportingnews.com/voices/paul_grant/20020612.html
- Greenberg, J. (1990). Employee theft as a reaction to underpayment inequity: The hidden cost of pay cuts. *Journal of Applied Psychology*, 75, 561-568.
- Greenberg, M. J. & Gray, J. T. (1998). *Sports law practice* (2nd ed.). Charlottesville, VA: Lexis Law Publishing.
- Gurr, T. R. (1970). *Why men rebel*. Princeton, NJ: Princeton University Press.
- Hale, D. (1994). Step up to the scale: Wages and unions in the sports industry. *Marquette Sports Law Journal*, 5, 123-139.
- Harder, J. W. (1991). Equity theory versus expectancy theory: The case of Major League Baseball free agents. *Journal of Applied Psychology*, 76(3), 458-464.
- Harder, J. W. (1992). Play for pay: Effects of inequity in a pay-for-performance context. *Administrative Science Quarterly*, 37, 321-335.
- Harvey, J. B. (1988). *The Abilene paradox and other meditations on management*. Lexington, MA: Lexington Books.

- Hauenstein, N. M., & Lord, R. G. (1989). The effects of final-offer arbitration on the performance of Major League Baseball players: A test of equity theory. *Human Performance*, 2(3), 147-165.
- Helmer, O. (1964). *Convergence of expert consensus through feedback*. Santa Monica, California: The Rand Corporation.
- Hentges, K., & Hosokawa, M. C. (1980). Delphi: Group participation in needs assessment and curriculum development. *The Journal of School Health*, 50(8), 447-450.
- Howard, D. & Crompton, J. (1995). *Financing sport*. Morgantown, WV: Fitness Information Technology, Inc.
- Howard, L. W., & Miller, J. L. (1992). Fair pay for fair play: Estimating pay equity in professional baseball with data envelopment analysis. *Academy of Management Journal*, 36, 882-894.
- Huseman, R. C., Hatfield, J. D., & Miles, E. W. (1985). Test for individual perceptions of job equity: Some preliminary findings. *Perceptual and Motor Skills*, 61, 1055-1064.
- Hymon, S. (1993, March 15). Fighting words. *Sports Illustrated*, 78(10), 9-10.
- Idson, T. L., & Kahane, L. H. (2000). Team effects on compensation: An application to salary determination in the National Hockey League. *Economic Inquiry*, 38(2), 345-357.
- Jones, J. C. H., Nadeau, S., & Walsh, W. D. (1999). Ethnicity, productivity and salary: Player compensation and discrimination in the National Hockey League. *Applied Economics* 31(5), 593-608.

- Jones, J. C. H., Nadeau, S. and Walsh, W. D. (1997). The wages of sin: The employment and salary effects of violence in the National Hockey League. *Atlantic Economic Journal*, 25, 191-206.
- Jones, J. C. H. and Walsh, W. D. (1988). Salary determination in the National Hockey League: The effects of skills, franchise characteristics, and discrimination. *Industrial and Labour Relations Review*, 44, 592-604.
- Kahn, L. (1993a). Free agency, long term contracts, and compensation in major league baseball: Estimates from panel data. *Review of Economics and Statistics*, 75(1), 157-164.
- Kahn, L. (1993b). Managerial quality, team success, and individual player performance in major league baseball. *Industrial and Labor Relations Review*, 46, 531-547.
- Kennedy, K. (2000, March 27). Punched out? *Sports Illustrated*, 92(13), 180.
- Kerlinger, F. N. (1986). *Foundations of behavioural research* (3rd ed.). Toronto: Holt, Rinehardt, & Winston.
- Kroll, W. P. (1971). *Perspectives in physical education*. New York, NY: Academic Press.
- Lavoie, M. (2000). The location of pay discrimination in the National Hockey League. *Journal of Sports Economics*, 1(4), 401-411.
- Lavoie, M. (1989). Stacking, performance differentials, and salary discrimination in professional ice hockey: A survey of evidence. *Sociology of Sport Journal*, 6(1), 17-35.

- Lavoie, M. and Grenier, G. (1992). Discrimination and salary determination in the National Hockey League: 1977 and 1988 compared. In F. Scully (Ed.), *Advances in the Economics of Sport*, Vol. 1, Greenwich, CT: JAI Press.
- Lavoie, M., Grenier, G., and Coulombe, S. (1987). Discrimination and performance differentials in the National Hockey League. *Canadian Public Policy - Analyse de Politiques*, XIII(4), 407-422.
- Lawler, E. E., & O'Gara, P. W. (1967). Effects of inequity produced by underpayment on work output, work quality, and attitudes toward the work. *Journal of Applied Psychology*, 51(5), 403-410.
- Lazear, E. P. (1989). Pay equality and industrial politics. *Journal of Political Economy*, 97, 561-580.
- Leonard, K. L. (1994). The development of a data base management system for a National Hockey League (NHL) team. *Journal of Sport Behavior*, 17(4), 246-257.
- Levine, D. I. (1991). Cohesiveness, productivity, and wage dispersion. *Journal of Economic Behaviour and Organization*, 15, 237-255.
- Li, M., Hofacre, S., & Mahony, D. (2001). *Economics of Sport*. Morgantown, WV: Fitness Information Technology.
- Libkuman, T. M., Love, K. G., & Donn, P. D. (1998). An empirically based selection and evaluation system for collegiate football. *Journal of Sport Management*, 12(3), 220-241.
- Lindstone, H. A., & Turoff, M. (Eds.) (1975). *The Delphi method: Techniques and applications*. Reading, MS: Addison-Wesley.

- Longley, N. (1995). Salary discrimination in the National Hockey League: The effects of team location. *Canadian Public Policy - Analyse de Politiques*, XXI(4), 413-422.
- Lord, R. G., & Hohenfeld, J. A. (1979). Longitudinal field assessment of equity effects on the performance of Major League Baseball players. *Journal of Applied Psychology*, 64, 19-26.
- Love, K. G. (1989, November). *Applying 1990's technology in personnel management to athletic recruiting and evaluation: An overview*. Paper presented as part of the symposium, "Bringing Athletic Recruiting Evaluation Into the 1990's: Issues of Reliability and Validity in Measurement," at the meeting of the International Conference on Sport Business, Columbia, SC.
- McCallum, J. (1994, October 10). Blame the boss. *Sports Illustrated Canada*, 2(7), 22-25.
- McCaw, S. T. & Walker, J. D. (1999). Winning the Stanley Cup Final Series is related to incurring fewer penalties for violent behavior. *Texas Medicine*, 95(4), 66-69.
- McKibbin, J. A. (2000). *The future of tobacco sponsorship of sport in Canada*. Unpublished master's thesis, University of Windsor, Windsor, Ontario, Canada.
- McLean, R. C. & Veall, R. V. (1992). Performance and salary differentials in the National Hockey League. *Canadian Public Policy - Analyse de Politiques*, XVIII(4), 470-475.
- McShane, S. L. (1998). *Canadian organizational behaviour* (3rd ed.). Toronto, ON: McGraw-Hill Ryerson Ltd.
- Meehl, P. E. (1986). Superiority of actuarial to clinical prediction. *Journal of Personality Assessment*, 50, 370-375.

- Meyer, H. H. (1975). The pay-for-performance dilemma. *Organizational Dynamics*, 3(3), 39-50.
- Moriarty, D., Holman, M., Brown, R. & Moriarty, M. (1993). *Canadian/American sport, fitness and the law*. Toronto, ON: Canadian Scholars' Press Inc.
- Nashville Predators (2003, January 10). *Your guide to NHL hockey statistics*. Retrieved January 12, 2003 from <http://www.nashvillepredators.com/learn/stats.html>
- National Hockey League (2000). *National Hockey League public relations manual*. Toronto, ON: National Hockey League.
- National Hockey League (2001). *National Hockey League: Official rules 2001-02*. Toronto, ON: Dan Diamond and Associates, Inc.
- National Hockey League (2002). *Official guide & record book / 2003*. Toronto, ON: Dan Diamond and Associates, Inc.
- National Hockey League Players' Association (2002). *What is the NHLPA?* Retrieved January 1, 2003 from http://www.nhlpa.com/Content/ABOUT_THE_NHLPA/What_Is_The_NHLPA.asp
- National Hockey League Players' Association / National Hockey League (1997, June 25). *Collective Bargaining Agreement*. New York, NY: Author.
- NetLingo (2003a). *CGI: Common Gateway Interface*. Retrieved February 8, 2003 from <http://www.netlingo.com/inframes.cfm>
- NetLingo (2003b). *Radio button*. Retrieved February 8, 2003 from <http://www.netlingo.com/inframes.cfm>

- NetLingo (2003c). *Form*. Retrieved February 8, 2003 from <http://www.netlingo.com/inframes.cfm>
- Neuman, W. L. (1997). *Social research methods: Qualitative and quantitative approaches* (3rd ed.). Needham Heights, MA: Allyn and Bacon.
- Nickels, W. G., McHugh, J. M., McHugh, S. M., & Berman, P. D. (1994). *Understanding Canadian business*. Burr Ridge, ILL.: Richard D. Irwin, Inc.
- Norušis, M. J. (2002). *SPSS 11.0 guide to data analysis*. Upper Saddle River, NJ: Prentice Hall.
- O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification and internalization on prosocial behaviour. *Journal of Applied Psychology*, 71, 492-499.
- Pfeffer, J., & Davis-Blake, A. (1992). Salary dispersion, location in the salary distribution, and turnover among college administrators. *Industrial and Labor Relations Review*, 45(4), 753-763.
- Pfeffer, J., & Langton, N. (1993). The effect of wage dispersion on satisfaction, productivity, and working collaboratively: Evidence from College and University faculty. *Administrative Science Quarterly*, 38, 382-407.
- Philadelphia World Hockey Club, Inc. v. Philadelphia Hockey Club, Inc.* 351 F.Supp. 462 (E.D. Pa. 1972).
- Prisinzano, R. (2000). Investigation of the matching hypothesis. *Journal of Sports Economics*, 1(3), 277-298.

- Pritchard, R. D., Dunnette, M. D., & Jorgenson, D. O. (1972). Effects of perceptions of equity and inequity on worker performance and satisfaction. *Journal of Applied Psychology*, 56(1), 75-94.
- Pulver, I. C. (1991). A face off between the National Hockey League and the National Hockey League Players' Association: The goal a more competitively balanced league. *Marquette Sports Law Journal*, 2(1), 39-88.
- Raimondo, H. (1983). Free agents' impact on the labor market for baseball players. *Journal of Labor Research*, 4(2), 183-193.
- Renger, R. (1992). *Predicting athletic success in professional ice hockey*. Unpublished doctoral dissertation. University of Calgary, Alberta, Canada.
- Renger, R. (1994). Identifying the task requirements essential to the success of a professional ice hockey player: A scout's perspective. *Journal of Teaching in Physical Education*, 13, 180-195.
- Romanoff, K., Boehm, K., & Benson, E. (1986). Pay equity: Internal and external considerations. *Compensation and Benefits Review*, 18(3), 17-25.
- Runciman, W. G. (1966). *Relative deprivation and social justice: A study of attitudes to social inequality in twentieth-century England*. Berkeley, CA: University of California Press.
- Rushin, S. (1994, October 10). Casualties of war. *Sports Illustrated Canada*, 2(7), 27-31.
- Sackman, H. (1975). *Delphi Critique*. Lexington, KY: Lexington Books.
- Schuler R., & Jackson, S. (1996). *Human resource management: Positioning for the 21st century* (6th ed.). Minneapolis/St. Paul: West Publishing.

- Scully, G. W. (1974). Pay and performance in Major League Baseball. *American Economic Review*, 64(5), 915-930.
- Sherman Antitrust Act, 15 U.S.C. §§ 1-7 (1890).
- Shoalts, D. (1999, October 8). Revenue sharing unpopular idea in NHL: Players' fingers in financial pie remain bugbear for club owners in any discussion of economic woes. *The Globe and Mail*, p. S4.
- Slack, T. (1997). *Understanding sport organizations*. Champaign, IL: Human Kinetics.
- Sommers, P. M., and Quinton, N. (1982). Pay and performance in Major League Baseball: The case of the first family of free agents. *Journal of Human Resources*, 17(3), 426-436.
- STATS (2000). *STATS hockey handbook 2000-01*. Morton Grove, IL: Sports Team Analysis & Tracking Systems, Inc.
- Staudohar, P. D. (1996). *Playing for dollars: Labor relations and the sports business*. Ithaca, NY: Cornell University Press.
- Stouffer, S. A., Suchman, E. A., DeVinney, L. C., Star, S. A., & Williams, R. M., Jr. (1949). *The American soldier: Adjustment during army life*. Princeton, NJ: Princeton University Press.
- Summers, T. P., & Hendrix, W. H. (1991). Modelling the role of pay equity perceptions: A field study. *Occupational Psychology*, 64, 145-157.
- Telly, C. S., French, W. L., & Scott, W. G. (1971). The relationship of inequity to turnover among hourly workers. *Administrative Science Quarterly*, 16, 164-172.

- Thomas, J. R. & Nelson, J. K. (1996). *Research methods in physical activity* (3rd ed.). Champaign, IL: Human Kinetics.
- Tredree, C. (2000). *National Hockey League All-Star Game media guide*. Toronto, ON: Dan Diamond and Associates, Inc.
- Tredree, C. (2002). *2002 NHL entry draft information guide*. Toronto, ON: Dan Diamond and Associates, Inc.
- Ulrich, D. & Parkhouse, B. L. (1982). An alumni oriented approach to sport management curriculum design using performance ratings and a regression model. *Research Quarterly for Exercise and Sport*, 53(1), 64-72.
- Underwood, J. (1984). *Spoiled sport: A fan's notes on the troubles of spectator sports*. Boston: Little, Brown.
- US Census Bureau (2002, September 30). *Total CPS population and per capita money income: 1967 to 2001*. Retrieved January 1, 2003 from <http://blue.census.gov/hhes/income/histinc/p01.html>
- Vancouver Hockey Club Ltd. v. 8 Hockey Ventures Inc.* (1987), 47 D.L.R. (4th) 51 (B.C.S.C.).
- Voyer, D. & Wright, E. F. (1998). Predictors of performance in the National Hockey League. *Journal of Sport Behavior*, 21(4), 456-473.
- Vroom, V. H. (1964). *Work and motivation*. New York, NY: Wiley.
- Wallace, M. (1988). Labor market structure and salary determination among professional basketball players. *Work and Occupations*, 15(3), 294-312.

- Wann, D. L., Fortner, B. W., Schrader, M. P., & Rosenberger, S. (1997). Application of the equity theory of motivation to sport settings: Importance and effect of inequity of overpayment. *Perceptual and Motor Skills*, 85(1), 227-234.
- Weistart, J. & Lowell, C. (1979). *The law of sports*. New York, NY: The Bobbs-Merill Company Inc.
- Werner, S. and Mero, N. P. (1999). Fair or foul?: The effects of external, internal, and employee equity on changes in performance of Major League Baseball players. *Human Relations*, 52(10), 1291- 1311.
- Williams, R. M. (1975). Relative deprivation. In L. A. Coser (Ed.), *The idea of social structure: Papers in honor of Robert K. Merton*. New York, NY: Harcourt Brace Jovanovich.
- Wulf, S. (1992, April 13). Season on ice. *Sports Illustrated*, 76(14), 32-33.
- Yasser, R., McCurdy, J. R., & Goplerud, C. P. (1997). *Sports law: Cases and materials*. Cincinnati, OH: Anderson Publishing Co.
- Young, S. J. and Jamieson, L. M. (2001). Delivery methodology of the Delphi: A comparison of two approaches. *Journal of Park and Recreation Administration*, 19(1), 42-58.
- Zeigler, J. A. (1987). The position of professional leagues today. In A. A. Strauss & D. E. Short (Chairpersons), *Sports in the Courts*. Conference Proceedings (pp. 1-9), Toronto, ON: Canadian Bar Association.

APPENDICES

APPENDIX A

Article 9 - Entry Level Compensation

Source: National Hockey League Players' Association / National Hockey League (1997, June 25). *Collective Bargaining Agreement*. New York, NY: Author.

ARTICLE 9
ENTRY LEVEL COMPENSATION

9.1. *Applicability and Duration.* Effective with contracts entered into after the date of the 1995 Entry Draft:

(a) No Club may enter into a Player Contract with a Rookie (excluding a player who is age 25 or older) that provides for Compensation in excess of that permitted by this Article. For purposes of this Agreement, a Group IV Player under the age of 25 will be subject to this Article if such player was subject to this Article at the time he became a "defected player" (as defined in Section 10.2(b)(i)).

(b) The period covered by the Player Contract for every Rookie, and the number of years that such player will be in the Entry Level System and subject to the Compensation limits set out in Section 9.3, shall be as indicated on the chart immediately below, and during such period, the player shall be deemed to be a "Group I Player":

<u>First Contract Signing Age</u>	<u>Period Covered by First Contract and Years in the Entry Level System and Subject to Compensation Limits</u>
18-21	3 years
22-23	2 years
24	1 year
25 and older	No required number of years, not in the Entry Level System and not subject to limits on Compensation

- (c) (i) In the event that an 18 year old or 19 year old player signs a Player Contract with a Club but does not play at least 10 NHL games (regular season and/or playoffs) in the first season under that player's Player Contract, the term of his Player Contract and his number of years in the Entry Level System shall be extended for a period of one year, except that this automatic extension will not apply to a player who is age 19 according to Section 9.2 by virtue of turning 20 between September 16 and December 31 in the year in which he first signs a Player Contract.
- (ii) In the event that a player signs his first contract at age 18 and has had his Player Contract extended pursuant to Subsection (i), and such player does not play at least 10 NHL games (regular season and/or playoffs) in the second season under that player's Player Contract, then the term of his

Player Contract and his number of years in the Entry Level System shall be extended for one additional year.

- (iii) In the event a player becomes a defected player (as described in Section 10.2(b)(i)(A)) or, having signed a Player Contract, ceases to render his playing services called for thereunder (except as a result of injury or illness), in each case during such period that he is in the Entry Level System, then during such defected or non-playing period, as the case may be, the player's number of years in the Entry Level System shall be extended for a period equal to the remaining unfulfilled portion of his Player Contract.
- (iv) The return dates to Major Junior (as established by Agreement between the NHL and the Canadian Hockey League, dated May 2, 1995, (or any successor or similar agreement so long as there is no material change in those return dates)), and the prohibition on sending underage players to the Minor Leagues (as set forth in Section 8.7) are hereby confirmed and affirmed and are continued during the term of this Agreement and any extension hereof.

9.2. Age of Players. As used in this Article, "age", including "First Contract Signing Age," means a player's age on September 15 of the calendar year in which he signs a Player Contract regardless of his actual age on the date he signs such contract.

9.3. Compensation Limits.

- (a) The maximum annual Compensation, including any bonuses for games played, permitted to be paid to a Group I Player shall be as follows:

<u>Draft Year</u>	<u>NHL Compensation</u>
1995	US\$ 850,000
1996	US\$ 875,000
1997	US\$ 925,000
1998	US\$ 975,000
1999	US\$1,025,000
2000	US\$1,075,000
2001	US\$1,130,000
2002	US\$1,185,000
2003	US\$1,240,000
2004	US\$1,295,000

All amounts are the maximum annual amounts for each year of the player's first Player Contract. For example, an 18 year old player drafted in 1995 and signing a Player Contract at the age of 19 must sign a three year Player Contract, with a maximum Compensation of U.S. \$850,000 per year.

(b) The aggregate of all Signing, Reporting and Roster Bonuses attributable to any League Year to be paid to a Group I Player may not exceed 50% of the player's Compensation for such League Year. Games played bonuses attributable to a League Year shall be included in Compensation for that League Year at their full potential value (e.g., assuming all such bonuses are earned) and shall be treated as Paragraph 1 Salary.

(c) For greater certainty, nothing contained in this Section 9.3 shall be deemed to limit the amount permitted to be paid to any Group I Player in respect of any Exhibit 5 Performance Bonus(es).

(d) The provisions of this Article 9 (including without limitation, the minimum performance levels specified on Exhibit 5) shall have no application to any player other than a player who is subject to the Entry Level System in accordance with this Article 9.

9.4. Minor League Compensation. Each Player Contract entered into with a Rookie in the Entry Level System shall automatically be deemed to be a "two way" contract with a minor league salary equal to the minor league salary set forth in such Player Contract or, if no minor league salary is set forth, the greater of (i) \$25,000 and (ii) the minimum minor league salary provided for players in the Minors; provided, however, in no event may such a Player Contract provide for minor league Compensation, including any bonuses for games played, greater than 50% of the NHL Minimum Compensation. The maximum Compensation payable to a Group I Player who is playing in the Major Juniors shall be \$7,500 for players drafted in the 1995, 1996 and 1997 Entry Drafts and \$8,500 for players drafted in the 1998, 1999 and 2000 Entry Drafts, \$9,500 for players drafted in the 2001, 2002 and 2003 Entry Drafts and \$10,500 for players drafted in the 2004 Entry Draft.

9.5. Implementation. For purposes of determining whether a Group I Player's Compensation is within the limits permitted in this Article, notwithstanding any provision in a Player Contract to the contrary or when such payments are actually made, the following rules shall apply in determining the components of a Group I Player's Compensation that are to be attributed to a given League Year and the value thereof:

(a) Any and all components of Compensation paid, granted or provided to a Group I Player during the term of his Player Contract, shall be included in Compensation for the League Year in which it is contractually required to be paid, granted or provided, or in the case of annuities, insurance policies and the like in the League Year which they cover or in which they are otherwise payable, or when the Player first has the right to require such payment, grant or provision, or at the first date at which the Club has the option of making,

granting or paying such Compensation, whichever occurs first, in accordance with the terms of the Player Contract and any underlying documentation.

(b) Any and all components of Compensation to be paid, granted or provided to a Group I Player after the term of his Player Contract, including without limitation, annuities, insurance policies and the like ("Deferred Compensation"), shall be included in Compensation for the League Year to which it is attributed or to the League Year in which the Player first has the right to require such payment, grant or provision, or at the first date at which the Club has the option of making, granting or paying such Compensation, whichever occurs first, in accordance with the terms of the Player Contract and any underlying documentation. All Player Contracts entered into by Group I Players after the date hereof shall specify the League Year to which Deferred Compensation is attributable. Components of Deferred Compensation shall be valued as follows:

(i) Deferred Compensation which includes an interest component shall not be discounted for present value purposes and shall be included in Compensation for the League Year to which it is attributed or to the League Year in which the Player first has the right to require such payment, grant or provision or at the first date at which the Club has the option of making, paying or granting such Compensation, whichever occurs first, in accordance with the terms of the Player Contract and any underlying documentation (A) at its face value for Deferred Compensation which is cash Compensation, or (B) at its fair market value for non-cash components of Deferred Compensation, or (C) at its cost for annuities, insurance policies and the like, as the case may be, determined in accordance with this Section.

(ii) Any and all components of Deferred Compensation which do not include an interest component shall be included in Compensation for the League Year to which it is attributed, or in which the Player first has the right to require such payment, grant or provision or at the first date at which the Club has the option of making such payment, grant or provision, whichever occurs first, in accordance with the terms of the Player Contract and any underlying documentation, at its present value based on the 12 month treasury bill rate (the "T-Bill Rate") published in the Wall Street Journal on the preceding February 1, or the first business day thereafter if February 1 is not a business day, such present value calculation to be based upon (A) the face value of such Deferred Compensation if it is cash Compensation or (B) fair market value for non-cash components of Deferred Compensation or (C) cost for annuities, insurance policies and the like, as the case may be, determined in accordance with this Section.

(c) Notwithstanding anything in Article 11 to the contrary, a Player and Club entering into a Player Contract not in conformance with this Article shall be so notified by the League and shall have 48 hours from receipt of such notification by Club and Player or his Agent and the NHLPA to renegotiate the provisions of such Player Contract and to submit the Player Contract for approval. Failure to timely resubmit a Player Contract in conformance with the above shall result in the offending Player Contract being submitted to the Impartial

Arbitrator who shall make such revisions as are necessary to bring the Player Contract into conformance.

(d) Except as set forth in subsection (b) above, Compensation payable in cash or cash equivalents shall be attributed a value equal to its face value.

(e) Except as set forth in subsection (b) above, any and all non-cash components of Compensation (e.g., automobiles, housing, air passage, art, reimbursement of expenses in excess of that which the Player is entitled to in accordance with this Agreement, and the like, including the use thereof) attributable to a League Year in accordance with this Article shall be included in Compensation for that League Year at their fair market value. The Player and the Club shall designate the fair market value of any such non-cash Compensation in the Player Contract, although such designation shall not be binding on the NHL and the NHLPA. If the parties dispute the fair market value of any component of Compensation, such dispute will be submitted to the Impartial Arbitrator.

(f) Annuities, insurance policies and the like shall be valued at cost.

(g) No Club may make any Compensation advance or loan to or for the benefit of a Player or guarantee or securitize any loan to or for the benefit of a Player unless the aggregate outstanding amount of all such advances or loans is at all times less than 2/3 of the remaining Compensation due to Player under his current Player Contract.

(h) In the event a Club makes a Compensation advance or loan to or for the benefit of a Player or guarantees or securitizes any loan to or for the benefit of a Player, which loan or advance bears interest at an annualized rate which is less than the T-Bill Rate, then the product of the amount of (A) the outstanding amount of such loan from time to time multiplied by (B) the difference between (y) the T-Bill Rate minus (x) the annualized interest rate of such loan, shall be included in the Player's Compensation in the applicable year during which there is any loan amount outstanding.

9.6. Exhibit 5 Performance Bonuses. Notwithstanding anything to the contrary contained in this Article (including, without limitation, Section 9.3) or this Agreement, Clubs and Players may freely negotiate, and a player who is subject to the Entry Level System under Article 9 may be paid, any amount(s) for any Exhibit 5 Performance Bonus(es), which amount(s) shall not be included in determining or calculating a player's maximum annual Compensation pursuant to Section 9.3. Nothing contained in this Article shall limit (i) the amount of, or the criteria for earning, any bonuses for players who are not in the Entry Level System or (ii) the criteria for earning games played bonuses for any player.

9.7. Player Contract Extensions. Player contracts for players subject to the Entry Level System may not be extended.

APPENDIX B

Article 12 - Salary Arbitration

Source: National Hockey League Players' Association / National Hockey League (1997, June 25). *Collective Bargaining Agreement*. New York, NY: Author.

ARTICLE 12
SALARY ARBITRATION

12.1. Eligibility.

(a) A player is eligible to elect salary arbitration if the player meets the qualifications set forth in the following chart and in Section 12.1(b) below:

<u>First Contract Signing Age</u>	<u>Minimum Level of Professional Experience Required to be Eligible for Salary Arbitration</u>
18-20	5 years professional experience
21	4 years professional experience
22-23	3 years professional experience
24	2 years professional experience
25 and older	1 year professional experience

A player aged 18 or 19 earns a year of "professional experience" by playing ten or more NHL games (regular season and/or playoffs) in a given season. A player aged 20 or above (or who turns 20 between September 16 and December 31 of the year in which he signs his first Player Contract) earns a year of professional experience by playing ten or more professional games under NHL contract in a given season.

(b) Only players who qualify as Restricted Free Agents as described in Section 10.2 and who have not signed an Offer Sheet may elect salary arbitration.

(c) As used in this Article, "age," including "First Contract Signing Age," means a player's age on September 15 of the calendar year in which he first signs a Player Contract regardless of his actual age on the date he signs such contract.

12.2. Request.

(a) A player entitled to elect salary arbitration must make a written request to the parties listed below not later than July 15 in the League Year in which such player is eligible for salary arbitration (or otherwise prior to such other date as specified in accordance with the annual critical date calendar agreed upon between the NHLPA and the League):

- (i) National Hockey League
1251 Avenue of the Americas
47th Floor
New York, New York 10020
Attn: David Zimmerman, Esq., and
- (ii) Central Registry
1800 McGill College
Suite 2600
Montreal, Quebec H3A 3J6
Attn: Director, Central Registry and
- (iii) National Hockey League Player's Association
One Dundas Street West
Suite 2300
Toronto, Ontario M5G 1Z3
Attn: Ian C. Pulver, Esq. and
- (iv) The player's Club at its address.

(b) Such request, made by a Player in accordance with the provisions herein, shall give to the Arbitrator jurisdiction in the dispute with respect to the other party also. Subject to Section 12.6, the Arbitrator's decision shall be final and binding on the parties. The Club and the Player shall sign a Player Contract promptly thereafter, effective as of September 1 of the League Year in which the request for salary arbitration was made under this Article, for the appropriate season(s), setting out the terms of the Arbitrator's decision. The terms of the award of the Arbitrator shall not be modified in any respect except where the parties subsequently agree.

(c) Only the dispute with respect to the terms of one contract shall be considered in any one hearing.

(d) The NHLPA and the NHL are responsible for the procedural steps described herein and shall act on behalf of the Player and the Club respectively. All communications with the Arbitrator, other than during the hearing, shall be by and through the NHLPA and the NHL.

(e) Arbitrators shall be selected as follows:

- (i) The League and the NHLPA shall jointly appoint eight Arbitrators who are members of the National Academy of Arbitrators.
- (ii) On the first Business Day following the final date for a Player to request salary arbitration, the League and the NHLPA shall jointly compile a list

of all requests, in order of receipt by NHL Central Registry, provided that if two or more requests are received on the same date, then the Players so requesting on the same day shall be listed in alphabetical order (the "Player List"). The Player List may not be changed for the remainder of the process outlined in this subsection. Within two Business Days, the parties shall submit to the Impartial Arbitrator the list of then current salary arbitrators and the Impartial Arbitrator shall, within 24 hours, numerically order the salary arbitrators in a completely random manner and fax that numbered list back to the parties (the "Arbitrator List"). Upon receipt of the Arbitrator List, the first name on the Arbitrator List shall be assigned to the first name on the Player List, the second name on the Arbitrator List shall be assigned the second name on the Player List, and so on until an arbitrator has been assigned to each Player on the Player List.

12.3. Hearing Date. The League and the NHLPA shall schedule the place, date and time for the arbitration hearing and the League and the NHLPA shall immediately notify the Club and the Player of such place, date and time by fax. All hearings shall be completed prior to August 15 of such League Year (or otherwise prior to such other date as specified in accordance with the annual critical date calendar agreed upon between the NHLPA and the League).

12.4. Termination of Arbitrator. The League and the NHLPA shall each have the right to terminate the appointment of an Arbitrator at any time for any reason provided that such termination shall be effective only after all awards for cases previously heard by such arbitrator have been rendered. The procedure for replacing such an Arbitrator shall be as follows: The party who has not initiated the termination shall submit a list of three names to the party who has initiated the termination. The party who has initiated the termination shall strike two of the names and the remaining person shall be the new member of the salary arbitration panel.

12.5. Rules of Procedure. The Rules of Procedure for salary arbitration proceedings shall be as follows:

(a) Attendance at Hearings.

The Player, the Club, the League and the NHLPA are each party to the proceeding. In addition to representatives of the parties, any other person(s) agreed upon by the League and the NHLPA may also attend.

The Arbitrator may sequester witnesses until they testify, with the exception of the Player and the Club's primary representatives.

(b) Written Submission and Election of Term.

The NHLPA and the League shall be responsible for ensuring compliance with this Agreement. The parties shall file their respective briefs with the Arbitrator at least forty eight (48) hours prior to the scheduled opening of the hearing. In addition, the parties shall simultaneously exchange briefs forty-eight (48) hours prior to the scheduled opening of the hearing. The failure to timely file and exchange a brief shall be deemed to constitute a waiver of the right to file any brief unless excused by the Arbitrator. Each brief shall be limited to fifty (50) pages, exclusive of indices, tables of contents, and exhibits.

The Club shall elect in its brief whether the arbitration award shall be for a one or two year contract. Failure to make such an election shall be deemed to constitute an election by the Club for a one year contract. Notwithstanding the foregoing, (i) the Club shall be entitled to elect only a one year contract if the Player is within one year of attaining the age and experience level required for Group III Player status; and (ii) if the Player has attained or is within one year of attaining the experience level required for Group V Player status and the Club has elected a two-year contract, the Player may, at the end of the first year of such contract, elect to void the second year of the contract if the player's salary for the first year of such contract is less than the Average League Salary for such year and upon making such election, such Player shall (if he otherwise qualifies at such time) become a Group V Player and be entitled to the rights set out in Section 10.1(b). If the Club elects a one-year award for a player within one year of attaining the experience level required for Group V Player status, then at the end of that year, the player may if he so elects, and if he qualifies, become a Group V Player at that time and be entitled to the rights set out in Section 10.1(b).

(c) Conduct of the Hearings.

The Player and the NHLPA, jointly, and the Club and the League, jointly, shall each have a maximum of ninety (90) minutes to present its affirmative case and thirty (30) minutes to present its rebuttal case, including any closing statements. If the party presenting second has, for the first time during its rebuttal case raised new substantive issues or introduced additional comparable players, then the party presenting first shall, upon the request of the NHLPA or the League only (whichever is the applicable party), have ten (10) minutes for surrebuttal, which may be used solely to address those new issues or new comparable players and may not be used for additional closing arguments.

(d) Participation at the Hearings.

A Player shall be represented at the hearing by the NHLPA unless the NHLPA chooses to delegate its authority in whole or in part, with the Player's consent, to the Player's representative. Any other party may be represented by counsel, who may participate fully in the hearing on behalf of that party.

(e) Arbitration in the Absence of a Party.

The hearing may proceed in the absence of any party who, after due notice, fails to appear or to seek and obtain a postponement pursuant to subsection (1) below. A decision shall not be made, however, solely upon the default of a party. The Arbitrator shall require the other party to submit such evidence as he may need for making the decision.

(f) Evidence.

- (i) Subject to the limitations set forth in subsection (iii) below, the parties may present whatever witnesses, affidavits, documents and other relevant evidence they choose to present at the hearing. The Arbitrator, on behalf of any party, or on his own behalf, may call witnesses or request documents or other evidence as he deems necessary to resolve the dispute. The Arbitrator in his discretion shall be the judge of the relevancy and materiality of the evidence offered and/or the weight, if any, to attach to any evidence and shall not be bound by any formal legal rules of evidence. All evidence shall be presented in the presence of all the parties, unless a party is in default, having failed to appear for the hearing, or has waived his right to be present. Statistical evidence asserted in a party's affirmative case must be included in such party's brief in order to be admissible.

(ii) The parties may offer evidence of the following:

(A) the overall performance, including official statistics prepared by the League (both offensive and defensive) of the Player in the previous season or seasons;

(B) the number of games played by the Player, his injuries or illnesses during the preceding seasons;

(C) the length of service of the Player in the League and/or with the Club;

(D) the overall contribution of the Player to the competitive success or failure of his Club in the preceding season;

(E) any special qualities of leadership or public appeal not inconsistent with the fulfillment of his responsibilities as a playing member of his team;

(F) the overall performance in the previous season or seasons of any player(s) who is alleged to be comparable to the party Player whose salary is in dispute; and

(G) (1) The Compensation of any player(s) who is alleged to be comparable to the party Player, provided, however, that in applying this or any of the above

subparagraphs, the Arbitrator shall not consider a player(s) to be comparable to the party Player unless a party to the arbitration has contended that the player(s) is comparable; nor shall the Arbitrator consider the Compensation or performance of a player(s) unless a party to the arbitration has contended that the player(s) is comparable.

(2) To the extent a non-cash economic item does not have an attributed value set forth in the player's contract or any addenda thereto, the parties shall attribute a value thereto by mutual agreement or, failing to reach such agreement, then such value shall be determined by the Impartial Arbitrator.

(iii) The following categories of evidence are inadmissible and shall not be considered by the Arbitrator:

(1) Any contract the term of which began when the player party to such contract was not a Group II Player;

(2) Any contract entered into by an Unrestricted Free Agent, including contracts signed by players after the player's Club has exercised a walk-away right pursuant to Section 12.6;

(3) Qualifying Offers made by the Club pursuant to Section 10.2;

(4) Any prior offers or history of negotiations between the Player and the Club;

(5) Testimonials, videotapes, newspaper columns, press game reports or similar materials;

(6) Any reference to actual or potential walk-away rights;

(7) Any award issued by an arbitrator as to which a Club exercised its walk-away rights pursuant to Section 12.6;

(8) The financial condition of the Club or the League.

In presenting any player's Compensation in a brief, the first reference thereto shall be a complete breakdown by component parts (clearly identified) of all such player's Compensation figures in the same format as the Joint Exhibit.

(iv) In each League Year, the League and the NHLPA shall agree on a Joint Exhibit setting forth the Compensation terms contained in all then current contracts of League players. The Joint Exhibit shall be completed by the start of the NHL playoffs in that League Year and thereafter updated on a rolling basis through and including June 20 of such League Year. The Joint Exhibit shall then be utilized to determine Average League Salary for such

League Year. The Joint Exhibit shall also be utilized by the League and the NHLPA to create a second list by each July 1st (the "Comparable Exhibit") setting forth the Compensation terms contained in all then current contracts of those players eligible to be used as comparables for the purposes of that year's salary arbitrations. The parties may then use extracts from the Comparable Exhibit to apprise the Arbitrators of the Compensation of those players alleged by such party to be comparable to the player who is the subject of the arbitration. The full Joint Exhibit and Comparable Exhibit shall not be distributed to the Arbitrators. The Joint Exhibit and the Comparable Exhibit shall promptly be updated to reflect the following:

- (A) the issuance of a salary arbitration decision;
- (B) verified settlement of any salary arbitration proceeding; and
- (C) verified recent signings of any other player.

In the absence of a written agreement, the parties shall, in good faith, take all necessary steps in advance of the start of the hearing to jointly confirm and memorialize the occurrence of any of the events described in paragraphs (A), (B) and (C) above. The steps shall include, but are not limited to, a conference call by and between representatives of the parties no later than three (3) hours before the hearing begins.

Items (A) through (C) above, although admissible in the context of a salary arbitration hearing, shall not be deemed to constitute a contract or a substitute for an appropriately registered and approved Player Contract or addenda.

The joint submission of the above defined supplemental evidence should not prejudice either party's position as to the relevance, weight or value attributable to any component of the package at issue.

The League and the NHLPA jointly shall provide such Arbitrator with the updated information for any player alleged to be a comparable player during such arbitration, provided such settlement or signing is accomplished at least three (3) hours prior to the commencement of such hearing or such salary arbitration decision issues before the close of such hearing. Any signings or settlements accomplished after commencement of a hearing shall be inadmissible for all purposes for such hearing.

(g) Statistics.

The League shall obtain and provide to the NHLPA any statistics relative to any aspect of player performance (i) kept or maintained by the League or (ii) retained by any Club. The NHLPA shall provide to the League any statistics relative to any aspect of player performance kept or maintained by the NHLPA. The Commissioner shall use his full authority to ensure each Club's cooperation in the full and complete implementation of this provision. Such statistics shall be so provided within four weeks after the conclusion of the regular season

for regular season statistics and within two weeks after the conclusion of the playoffs for playoff statistics.

(h) Testimony.

All witnesses and persons who testify orally at the hearing shall be made available for cross-examination.

(i) Stenographic Record.

When requested by either party, the Arbitrator shall make the requisite arrangements for the taking of an official stenographic recording of the hearing proceedings. The cost of such record shall be borne equally by the parties unless, at the commencement of the hearing, both the Arbitrator and the other parties indicate their desire not to receive a copy of the record, in which case the entire cost shall be borne by the requesting party.

(j) Order of Proceedings.

Unless otherwise determined by the Arbitrator or mutually agreed to by all parties, the order of proceedings shall be as follows:

- (A) affirmative case of the Player and the NHLPA;
- (B) affirmative case of the Club and the League;
- (C) rebuttal and closing argument of the Player and the NHLPA;
- (D) rebuttal and closing argument of the Club and the League;
- (E) surrebuttal by the Player and/or the NHLPA, where permitted in accordance with subsection 12.5(c) hereof.

(k) Reopening of Hearings.

At any time before a decision is issued, a hearing may be reopened by the Arbitrator on his own motion or on motion of any party for good cause shown.

(l) Continuance, Adjournments or Postponements.

There shall be no continuance or adjournment of a hearing, but the commencement of a hearing may be postponed by the Arbitrator upon the application of the NHLPA or the League only, based on substantial cause. Any request for the postponement of a scheduled hearing shall be made to the Arbitrator in writing, with copies by fax to all other parties so that the parties may, if they desire, respond immediately to the Arbitrator.

(m) Salary Arbitration Decision.

- (i) Each salary arbitration decision must be issued by fax to each of the parties within 48 hours of the close of the hearing, provided that for arbitrations held on Friday, within 72 hours of the close of the hearing.
- (ii) The decision of the Arbitrator shall establish:
 - (A) the term of the contract, based upon the Club's election of a one or two year contract, as set forth in its brief and as consistent with this Article;
 - (B) the base salary to be paid to the Player by the Club for the season(s) in respect to which the arbitration is conducted;
 - (C) the bonuses, if any, which are appropriate in the circumstances;
 - (D) the inclusion or otherwise of a "minor league clause" (or clauses) and the amount of base salary to be paid under each of the season(s) in respect to which the arbitration is requested;
 - (E) a brief statement of the reasons for the decision, including identification of any comparable(s) relied on.

(n) Expenses.

Each party shall be responsible for his own expense of participation in the arbitration. The cost of the preparation of the official record shall be apportioned as provided in subparagraph (i) above. The cost of the arbitration proceedings, including the Arbitrator's fees and expenses, shall be shared equally among the parties.

(o) Communications with the Arbitrator.

Only the NHLPA and/or the League may communicate with the Arbitrator. Copies of all written communications sent to the Arbitrator in connection with an arbitration proceeding shall immediately be sent to the other parties in the case. There shall be no *ex parte* oral communications with the Arbitrator in connection with an arbitration proceeding unless previously agreed to by the NHLPA and the League.

(p) Publicity.

The parties shall not publicize the substantive aspects of any arbitration proceeding until the decision has been issued.

12.6. Walk-Away Rights.

(a) If a Club has elected to arbitrate a one year contract, and the award issued is for \$550,000 or more per annum, then the Club may, within 72 hours after the award of the Arbitrator is issued (or if a Club has any other player still eligible for salary arbitration at that time and for whom a decision has not been rendered by an Arbitrator at that time, and the Club still has a walk-away right available to it in such League Year pursuant to paragraph (d) below, 72 hours after the award of the Arbitrator for such other player is issued), notify the player, the NHLPA and the NHL in writing that it does not intend to tender to the player a Player Contract based on the award as determined by the Arbitrator. Upon receipt of that notice, the player shall automatically be deemed to be an Unrestricted Free Agent, subject to the provisions of paragraphs (c) and (d) below.

(b) If a Club has elected to arbitrate a two year contract and the award issued is for \$550,000 or more per annum, then the Club may, within 72 hours after the award of the Arbitrator is issued (or, if a Club has any other player still eligible for salary arbitration at that time and for whom a decision has not been rendered by an Arbitrator at that time, and the Club still has a walk-away right available to it in such League Year pursuant to paragraph (d) below, 72 hours after the award of the Arbitrator for such other player is issued), notify the player, the NHLPA and the NHL in writing that it does not intend to tender to the player a two year Player Contract based on the award as determined by the Arbitrator. Upon receipt of that notice by either the player or the NHL, the player and the Club shall enter into a one year Player Contract providing for the Compensation set forth in the award and the player will automatically be deemed to be an Unrestricted Free Agent at the conclusion of that one year Player Contract subject to the provisions of paragraphs (c) and (d) below.

(c) If a Club exercises its walk-away right, the following applies:

(i) If the player accepts an offer from a New Club in respect of that year of the contract which the Prior Club has walked-away from that is less than 80% of the award for such year, the Prior Club may, within seven (7) days after the date it receives the applicable Offer Sheet, elect to match the offer of the New Club and the Player and the Prior Club shall enter into a Player Contract on those terms and conditions; or

(ii) The player may (A) within seven (7) days after receipt of notice from the player's Prior Club that the Prior Club elects to walk-away from the arbitration award, in respect of the Prior Club's request for a one year contract, or (B) by July 15 of the League Year following the expiry of the first year of the award issued by the Arbitrator where the Club had requested a two-year contract, in either case by written notice to the Club, elect to enter into a Player Contract with the Club on the terms and conditions set forth in the Prior Club's Qualifying Offer. If such election is timely exercised, the Club must enter into such contract and, at the end of the term thereof, the Player shall be a free agent subject to the provisions of Article 10.

(d) Notwithstanding the provisions of paragraphs (a) and (b) above, a Club may exercise the walk-away rights referred to therein not more than 3 times in any contiguous two League Years and in any event not more than twice in any League Year. If a Club exercises its walk-away right with respect to a two year award, the walk-away right shall be deemed to be exercised in the first year of the two year contract.

(e) The dollar amount of \$550,000 set forth in each of paragraphs (a) and (b) above, shall be increased on an annual basis at the same percentage rate of increase as the Average League Salary, with the commencement of the 1996/97 League Year being the first year such increase shall take effect. By way of example, if the Average League Salary on June 30, 1996 has increased by 10% from the Average League Salary on June 30, 1995, then the figure of \$550,000 stated in paragraphs (a) and (b) above, shall be increased by 10% on June 30, 1996, and the ability of a Club to walk-away from an arbitration award rendered after June 30, 1996, shall be adjusted accordingly. For each League Year thereafter, a similar comparison and adjustment shall be made.

APPENDIX C

Article 11 - Salary and Awards; Standard Player's Contract

Source: National Hockey League Players' Association / National Hockey League (1997, June 25). *Collective Bargaining Agreement*. New York, NY: Author.

ARTICLE 11
SALARY AND AWARDS; STANDARD PLAYER'S CONTRACT

11.1. *Player Contract.*

(a) The standard form Player Contract annexed hereto as Exhibit 1 (the "1995 Standard Player's Contract"), will be the sole form of employment contract used for all player signings after the date of this Agreement. Contracts signed on previously approved forms, including on the form issued in September 1994, will be considered valid and effective, until expiration.

(b) No Player Contract shall be valid or enforceable in any manner whatsoever unless it has been filed with the League and approved by the Commissioner or his designee or the Impartial Arbitrator. Except with respect to players who are party to an Amateur Try-Out Contract, and cases in which salary arbitration has been invoked pursuant to Article 12 hereof but has not been completed prior to the commencement of the playing season, no player will be permitted to play in a regular season or playoff game or in any international game provided for in Article 24 hereof unless a contract has been filed with the League and not disapproved by the Commissioner or, if applicable, the Impartial Arbitrator. Such approval will, if there is no objection raised by the Commissioner or his designee, be given within fourteen (14) days of the League's receipt of such contract, provided that if no action is taken during such period, the Player Contract shall be deemed to be approved. A Club must file with the League five (5) originally executed counterparts of a Player Contract, and shall also deliver one originally executed counterpart to each of the NHLPA and the Player in accordance with Section 11.3(a) of this Agreement.

(c) In the event the Commissioner or his designee rejects or disapproves a Player Contract, a written notice as to the specific reasons, and citing the relevant clauses or provisions, therefor shall be sent to the Club, the player and the NHLPA within two (2) business days of such rejection or disapproval. In such case, or in the event the Impartial Arbitrator rules in the League's favor in accordance with the following sentence, the Club and the Player will then have seven (7) business days from the date of rejection or the Impartial Arbitrator's ruling, as the case may be, to agree on and file a conforming Player Contract with the League during which time the Player may play for the Club, provided that if a conforming Player Contract is not so filed, then the Player may not play in any NHL regular season or playoff game unless and until a Player Contract is filed with and approved by the Commissioner or, if applicable, the Impartial Arbitrator. In the event a Player Contract is rejected and the NHLPA disagrees with such rejection, the NHLPA may refer such dispute to the Impartial Arbitrator, which dispute shall be heard and a decision rendered within 48 hours or as soon thereafter as possible.

11.2. *Individually Negotiated Limitations on Player Movement.*

Contracts entered into on or after a player's 32nd birthday (or his 31st birthday on or after June 30, 1998) may contain a no-trade clause. Contracts containing a "no-trade" clause may be entered into prior to the player's 32nd birthday (or his 31st birthday on or after June 30, 1998), so long as the fixed term of the contract containing the no-trade clause extends through the player's 32nd birthday (or his 31st birthday on or after June 30, 1998) and the no-trade clause does not become effective until the player reaches his 32nd birthday (or his 31st birthday on or after June 30, 1998). If the player is traded prior to the no-trade clause taking effect, the clause does not bind the acquiring Club. The acquiring Club may separately agree to a no-trade clause.

11.3. *General.*

(a) Any agreement between any player and any Club or Club affiliate concerning terms and conditions of employment and any agreement between any player and any Club or Club affiliate providing for the player to be compensated by the Club or Club affiliate shall be set forth in writing and disclosed and provided by the Club and/or Club Affiliate to the League and the NHLPA within five (5) business days of the execution or making of the agreement.

(b) Nothing contained in this Agreement shall require any Club to pay or be obligated to pay any player (not including retired players) other than pursuant to the terms of an approved Player Contract. Nothing contained in the immediately preceding sentence shall affect a Club's obligation to pay a player Deferred Compensation earned under a prior Player Contract or affect the Club's obligations, if any, under any other agreement between a player and any Club or Club Affiliate.

(c) Nothing in this Agreement shall prevent individual negotiations between a player and his Club with respect to salary. To the extent of any inconsistency between any provision of a Player Contract and any provision of this Agreement (other than the duration thereof), this Agreement shall govern. There shall be no duplication or compounding of benefits to players where both this Agreement and the player's contract provide for similar benefits. A player and a Club shall at all times be free to negotiate and enter into a two-way Player Contract, including those players for whom a mandatory one-way Qualifying Offer must be made.

(d) Bonuses earned by a Player pursuant to a Player Contract shall be paid within the period set forth in the Player Contract, provided if no period is set forth, then within ten (10) days of the Club's last game (regular season or playoffs, as the case may be). Players shall receive awards earned as soon as practicable after entitlement. In cases where the Club is to receive monies from the League to pay for such awards, the Club shall disburse such monies to the entitled players as soon as practicable after receiving such monies from the League.

(e) No Club shall act in bad faith to deprive a player of rights or benefits under this Agreement or any current Player Contract or with respect to Deferred Compensation earned under a prior Player Contract.

11.4. Conformity. All Player Contracts signed prior to the execution of this Agreement and in effect during the term hereof shall be deemed amended in such a manner to require the parties to comply with the terms of this Agreement, the Transition Rules attached as Exhibit 16 and the 1995 Standard Player's Contract, except with respect to currently existing performance bonuses.

11.5. NHL Minimum Compensation.

(a) Except with respect to Try-Out Contracts, no Player Contract shall provide for Compensation of less than the following:

(i) For each of the 1994/95, 1995/96, 1996/97 and 1997/98 Seasons: \$125,000 if the player plays in the NHL and the greater of \$25,000 or the minimum minor league salary if the player plays in the Minors.

(ii) For each of the 1998/99, 1999/00 and 2000/01 Seasons: \$150,000 if the player plays in the NHL and the greater of \$25,000 or the minimum minor league salary if the player plays in the Minors.

(iii) For the 2001/02 Season: \$165,000 if the player plays in the NHL and the greater of \$30,000 or the minimum minor league salary if the player plays in the Minors.

(iv) For the 2002/03 Season: \$175,000 if the player plays in the NHL and the greater of \$30,000 or the minor league salary if the player plays in the Minors.

(v) For the 2003/04 Season: \$180,000 if the player plays in the NHL and the greater of \$30,000 or the minor league salary if the player plays in the Minors.

(vi) For the 2004/05 Season: \$185,000 if the player plays in the NHL and the greater of \$30,000 or the minor league salary if the player plays in the Minors.

11.6. Option Clauses. Player Contracts shall not contain any option clause in favor of the Club or the Player except an option clause that: (a) is specifically negotiated between a player and a Club; (b) authorizes the extension of such contract beyond its stated term; and (c) states the Compensation to be paid to the Player during that option year or years. Any option clause must be exercised by the later of June 30 or the day following the last day of that Club's season (including playoffs, if applicable) immediately prior to the season covered by the option clause. Salary Arbitration shall not be available to the Player for any option year, except as expressly set forth in the Transition Rules. Option Clauses in standard player contracts in effect as of the date hereof are hereby abolished, subject to the Transition Rules.

11.7. Undisclosed Terms. At the time a Club and a player enter into any Player Contract, or any renegotiation, extension or amendment of a Player Contract, there shall be no undisclosed agreements of any kind, express or implied, oral or written, or promises, undertakings, representations, commitments, inducements, assurances of intent, or understandings of any kind, between such player and any Club involving Compensation either during the term of the Player Contract or thereafter.

11.8. Injury/Salary Arbitration. Any player who is not a party to a Player Contract or any previously approved standard form contract, including the September 1994 form, because salary arbitration has been invoked pursuant to Article 12 but has not been completed, and who prior to entering into such contract is injured in training camp or in a game, shall, for the purpose of determining salary payable during the period of his injury in that playing season, be deemed to have executed such contract for the higher of (i) the Club's offer for the season in question, (ii) his salary for the immediately preceding playing season, or (iii) the salary established by the then pending salary arbitration.

11.9. No Liability for Compensation. In no event shall either the League or any Club, solely by reason of membership in the League, be liable with respect to any player's Compensation, whether under a deferred compensation arrangement or otherwise.

11.10. All-Star Game Payments. All-Star Game payments shall be paid only to the players who participate in the game, or who were chosen to participate but are unable to do so as a result of injury or illness shall receive an equal share payment from the existing payment pool; the NHL having no liability for such additional share(s).

11.11. Default. The parties agree that if the Club shall default in the payment of any Compensation to the player provided for in the Player's Player Contract or shall fail to perform any other obligation agreed to by the Club thereunder (or in any previously approved standard form contract, including the September 1994 form), the player may, by notice in writing to the Club and to the League and the NHLPA, specify the nature of any and all defaults and thereafter:

(a) If the Club shall fail to remedy the default within fourteen (14) days from receipt of such notice, except as hereinafter provided in subsections (b), (c) and (d) of this Section 11.12, the contract shall be terminated, and upon the date of such termination all obligations of both parties shall cease, except the obligation of the Club to pay the player's Compensation to that date, provided, however, that;

(b) the player hereby irrevocably offers the League an option to cure said default within the seven (7) days next succeeding the fourteen (14) days within which the Club may cure the default upon the condition that, in the event the League may accept this offer, the League would then guarantee payment of that portion of the player's Compensation, as set forth in the Player's Player Contract, as may become due for a period of twenty-one (21) days from receipt by the League of any notice of default. The League may accept this offer by

notification to the player and the NHLPA in writing of such acceptance and of its guarantee of said twenty-one (21) day Compensation period as soon as possible following receipt of notice of default from player but in no event later than fourteen (14) days following receipt of such notice. This offer will be deemed rejected if not accepted as set forth above;

(c) said option may be assigned by the League to any other Club and, upon such assignment, the assignee Club shall inure to all of the rights of and assume all obligations of the League under this Section 11.12;

(d) the player further agrees that, if the League has given due notice as set forth in subsection (b), he will continue to perform all of his obligations under his contract for the full twenty-one (21) day period and, in the event the Club does not cure the default within the fourteen day period, as set forth in Subsection (a), the League, or any Club to which its option has been assigned, may cure the default within the seven (7) days following the first fourteen (14) days next succeeding receipt of notice of default; and

(e) the Club agrees if it does not cure the default within the fourteen (14) day period, as set forth in subsection (a) above, and the League, or an assignee Club, cures said default in accordance with subsections (b), (c) and (d) of this Section 11.12 then, in such event, all rights and obligations of the Club under this contract shall be transferred to the League, or such assignee Club, provided, however, that no obligation with respect to a default or defaults claimed to exist at the time of notice of default, as provided above, but not specifically included and set forth in said notice shall be assumed by the League or such assignee Club and the League or such assignee Club shall have no liability with respect thereto.

APPENDIX D

Article 28 - Player Finish and Other Monetary Awards

Source: National Hockey League Players' Association / National Hockey League (1997, June 25). *Collective Bargaining Agreement*. New York, NY: Author.

ARTICLE 28
PLAYER FINISH AND OTHER MONETARY AWARDS

(a) As long as the League continues to be structured in four (4) divisions, awards for order of finish (based upon points earned during the regular playing season)(on the basis of 21 shares per team) shall be:

(i) Each player on the Club with the most points in each of the four (4) divisions shall receive \$5,000 (native currency) for seasons through 1999/00 and \$6,000 (native currency) for seasons after 1999/00.

(ii) Each player on the Club with the second most points in each of the four (4) divisions shall receive \$2,500 (native currency) for seasons through 1999/00 and \$3,000 (native currency) for seasons after 1999/00.

A player who was a regular player on the Club roster during the season shall be entitled to a share of the finish money based on the fraction of number of games he played. Credit for games played shall include dressed, injury and sickness.

(b) A single lump sum payment shall be made by the NHL to the players on account of Stanley Cup playoff participation (the "Player Fund") in the following amounts:

for 1994/95	\$ 9,000,000
for 1995/96	\$10,000,000
for 1996/97	\$10,000,000
for 1997/98	\$11,000,000
for 1998/99	\$11,000,000
for 1999/00	\$12,000,000
for 2000/01	\$12,000,000
for 2001/02	\$12,500,000
for 2002/03	\$13,000,000
for 2003/04	\$13,500,000

The Player Fund shall be paid in mixed (United States and Canadian) dollars in the same proportion as the number of games played in the United States are to the number of games played in Canada.

The allocation of the Player Fund to the various playoff rounds, team finish and other awards shall be determined by the NHLPA, subject to approval by the League.

Players on each Club shall vote on how the club's share of the Player Fund shall be divided among the players on that Club.

(c) A player who is brought up after the trading deadline and remains with the Club during the playoffs shall be entitled, in lieu of the foregoing amounts, to be paid:

- hotel accommodation
- NHL meal allowance
- Standby fee of: \$225 for 1994/95
\$250 for 1996/97
\$275 for 1997/98
\$275 for 1998/99
\$300 for 1999/00
\$325 for 2000/01
\$325 for 2001/02
\$350 for 2002/03
\$375 for 2003/04

(d) In addition to the awards set forth in subsections (a) and (b) of this Article, other individual trophy and All-star team awards shall be made by the League in an aggregate amount that will not be less than:

(i) \$85,000 for each season through 1999/00 or

(ii) \$105,700 for each season after 1999/00, which amount will be allocated as follows:

	<u>Through 1999/00</u>	<u>2000/01 and After</u>
Hart Memorial Trophy		
Winner	3,000	3,700
Runner-up	1,000	1,250
Calder Memorial Trophy		
Winner	3,000	3,700
Runner-up	1,000	1,250
James Norris Memorial Trophy		
Winner	3,000	3,700
Runner-up	1,000	1,250
Art Ross Trophy		
Winner	3,000	3,700
Runner-up	1,000	1,250
Vezina Trophy		
Winner	3,000	3,700
Runner-up	1,000	1,250
Lady Byng Memorial Trophy		
Winner	3,000	3,700
Runner-up	1,000	1,250
Frank J. Selke Trophy		
Winner	3,000	3,700
Runner-up	1,000	1,250

Conn Smythe Trophy		
Winner	3,000	3,700
William Masterton Memorial Trophy		
Winner	3,000	3,700
Runner-up	1,000	1,250
Lester B. Pearson Award		
Winner	3,000	3,700
Runner-up	1,000	1,250
All-Star Team		
	1st \$5,000 (6 players)	6,000
	2nd 2,000 (6 players)	2,750
William Jennings Trophy		
Winner	3,000	3,700
Runner-up	1,000	1,250

(e) Players playing on a Club that wins the President's Cup (first place overall in regular season finish) shall be paid by said Club one-half of the award money won by the Club, allocated on a pro-rata games-dressed basis. (For example, where President's Cup award to Club is \$200,000 (for each season through 1999/00), Club shall distribute \$100,000 to all players who dressed during the Club's 82 regular season games. Thus, for each of the 82 games, approximately \$1,220 would be divided among the players dressed for said game. For each season after 1999/00, the President's Cup Award to the Club shall be at least \$250,000.

APPENDIX E

Exhibit 5 - Performance Bonuses

Source: National Hockey League Players' Association / National Hockey League (1997, June 25). *Collective Bargaining Agreement*. New York, NY: Author.

EXHIBIT 5
PERFORMANCE BONUSES

The following is a list of the performance bonuses that may be included in a player's contract during his entry level period. Each bonus is stated in terms of both the category of performance and the minimum level of performance required for a bonus. The Player and the Club are free to negotiate and agree upon any dollar amount to be paid for achieving the minimum or any higher level to which the Player and Club agree. Bonuses paid under this provision are outside the cap. No other performance bonuses except games played bonuses may be included in a player's contract during his entry level period.

I. General

- Final National Hockey League statistics are to be utilized. No post season challenges to the final statistics will be entertained.
- All bonuses shall apply to regular season games only.

II. League Awards

- The following are the only awards or trophies for which clubs and players may negotiate bonuses: the Hart Memorial Trophy ("Hart"), the Art Ross Trophy ("Art Ross"), the Vezina Trophy ("Vezina"), the William Jennings Trophy ("Jennings"), the Calder Memorial Trophy ("Calder"), the Norris Trophy ("Norris"), the Lady Byng Memorial Trophy ("Lady Byng"), the Conn Smythe Trophy ("Conn Smythe"), the Bill Masterton Memorial Trophy ("Masterton"), the Alka Seltzer Plus Award ("Alka Seltzer"), the Frank J. Selke Trophy ("Selke"), and the King Clancy Memorial Trophy ("Clancy").
 - A. A player may be awarded a bonus for finishing in the top ten in balloting for the Hart, Art Ross, Norris, Vezina, Selke and the Alka Seltzer.
 - B. A player may be awarded a bonus for finishing in the top five only in balloting for the Calder and the Lady Byng.
 - C.. A player may be awarded a bonus solely for winning the Conn Smythe, Clancy, Masterton, and Jennings.
 - D. In the event that the National Hockey League creates additional award(s) of like stature in the future, Clubs may award bonuses to players in connection therewith.
 - E. A player may be awarded a bonus for being named to the official NHL All-Star Team at the conclusion of each season. Such a bonus may be awarded for selection to the First or Second Team only.

- F. A player may be awarded a bonus for being named to the NHL All-Rookie Team.
- G. A player may be awarded a bonus for being selected to play in the NHL All-Star Game.

III. Individual Bonuses

A. Forwards

1. Ice Time. Player must be in top nine forwards on club.
2. Goals Scored: 20 Goal Minimum
3. Assists Scored: 35 Assist Minimum
4. Total Points Scored: 60 Point Minimum
5. Plus-Minus Rating: Plus 10 Minimum. A non-playoff club may award a bonus to a forward in the top three forwards on the club in Plus-Minus (no minimum required).
6. Team Penalty Killing Rating. Player must be on one of the penalty killing units. Minimum top 10 in NHL.*
7. Team Power Play Rating. Player must be on one of the power play units. Minimum top 10 in NHL.*
8. Points Per Game. Minimum of Forty-Two (42) Games Played. Minimum .73 Points Per Game
9. Power Play Goals
Minimum 5 Goals
10. Short-Handed Goals
Minimum 3 Goals
11. Game-Winning Goals
Minimum 4 Goals

* In the event the NHL expands, this number shall increase by one for each two clubs added.

B. Defensemen

1. Ice Time. Player must be in top four defensemen on club.

2. Goals Scored: 10 Goal Minimum
3. Assists Scored: 25 Assist Minimum
4. Total Points Scored: 40 Point Minimum
5. Plus-Minus Rating: Plus 10 Minimum. A non-playoff club may award a bonus to a defenseman in the top three defensemen on the club in Plus-Minus (no minimum required).
6. Team Penalty Killing Rating. Player must be on one of the power play units. Minimum top 10 in NHL.*
7. Team Power Play Rating. Player must be on one of the power play units. Minimum top 10 in NHL.*
8. Points Per Game. Minimum of forty-two (42) games played. Minimum .73 points per game.
9. Power Play Goals
Minimum 3 Goals
10. Short-Handed Goals
Minimum 2 Goals
11. Game-Winning Goals
Minimum 3 Goals

* In the event the NHL expands, this number shall increase by one for each two clubs added.

C. Goaltenders

1. Minutes Played: Minimum 1800 Minutes.
2. Goals Against Average (25 Game Minimum, 20 Minute Minimum*)
3.00 - 3.25 (.890 SVPCTG required)
Minimum 2.99 or Below (no minimum SVPCTG required)
3. Save Percentage (25 Game Minimum, 20 Minute Minimum*)
Minimum .890 or greater
4. Wins (20 Minute Minimum*)

5. Shutouts (40 minute minimum*). Club must record a shutout in the game.

Minimum 4 Shutouts

* If goaltender is replaced for an extra attacker, those minutes shall count.

D. Stanley Cup Championship

A club may award a personal bonus to a player in the event that the Club wins the Stanley Cup championship. No bonuses may be awarded for any other playoff success. No club may award a bonus to a player for the club's regular season finish position. Player must play in one-half of Club's games in the playoffs in the year Club wins the Stanley Cup. If there is an odd number of games played, Player will have to play in the lesser number of games. For example, if there are 21 games played, Player must play in 10 games.

E. League-Ranking Bonuses

1. **Skaters:** A club may award a bonus if the player finishes in the top 15 in the League in Goals, Assists, Points or Plus-Minus.
2. **Goaltenders:** A club may award a bonus if the player finishes in the top 10 in the League in Goals Against Average, Save Percentage.

F. Education

Clubs may reimburse players for reasonable educational expenses actually incurred (proof of payment must be submitted) up to a maximum of \$5,000 annually in native currency for tuition, books and fees in connection with a player's continuing education at an accredited university or college. Proof of a passing grade must be submitted.

All such payments are non-cap dollars.

Any payments not in conformity with this section, including without limitation any cash payment earmarked for education, are cap dollars, and count against the Entry Level salary cap.

G. Travel

Clubs may agree to pay the travel (airfare, accommodation, and game tickets) for a player's parents only to watch his first NHL game. If this is not practical, clubs may bring a player's parents in for a different game that season. Such expenses may be paid on only one occasion for a player in the Entry Level system.

All such payments are non-cap dollars.

Any payments not in conformity with this section are cap dollars, and count against the Entry Level salary cap.

APPENDIX F

Stanley Cup Winners & Finalists

Source: National Hockey League (2002). *Official guide & record book/2003*. Toronto, ON:

Dan Diamond and Associates, Inc.

Stanley Cup Champions & Finalists (1967-2002)

Year:	W-L in Finals:	Champion:	Finalist:
2002	4-1	Detroit	Carolina
2001	4-3	Colorado	New Jersey
2000	4-2	New Jersey	Dallas
1999	4-2	Dallas	Buffalo
1998	4-0	Detroit	Washington
1997	4-0	Detroit	Philadelphia
1996	4-0	Colorado	Florida
1995	4-0	New Jersey	Detroit
1994	4-3	NY Rangers	Vancouver
1993	4-1	Montreal	Los Angeles
1992	4-0	Pittsburgh	Chicago
1991	4-2	Pittsburgh	Minnesota (now Dallas)
1990	4-1	Edmonton	Boston
1989	4-2	Calgary	Montreal
1988	4-0	Edmonton	Boston
1987	4-3	Edmonton	Philadelphia
1986	4-1	Montreal	Calgary
1985	4-1	Edmonton	Philadelphia
1984	4-1	Edmonton	NY Islanders
1983	4-0	NY Islanders	Edmonton
1982	4-0	NY Islanders	Vancouver
1981	4-1	NY Islanders	Minnesota (now Dallas)

1980	4-2	NY Islanders	Philadelphia
1979	4-1	Montreal	NY Rangers
1978	4-2	Montreal	Boston
1977	4-0	Montreal	Boston
1976	4-0	Montreal	Philadelphia
1975	4-2	Philadelphia	Buffalo
1974	4-2	Philadelphia	Boston
1973	4-2	Montreal	Chicago
1972	4-2	Boston	NY Rangers
1971	4-3	Montreal	Chicago
1970	4-0	Boston	St. Louis
1969	4-0	Montreal	St. Louis
1968	4-0	Montreal	St. Louis
1967	4-2	Toronto	Montreal
TOTALS:		13 Clubs	21 Clubs

Stanley Cup Champions Summary (1967-2002)

Club:	# of Cups	Years:	Winner in a Previous or Subsequent Year:
Boston	2	1970, 1972	
Calgary	1	1989	
Colorado	2	1996, 2001	
Dallas	1	1999	
Detroit	3	1997, 1998, 2002	✓
Edmonton	5	1984, 1985, 1987, 1988, 1990	✓✓
Montreal	10	1968, 1969, 1971, 1973, 1976, 1977, 1978, 1979, 1986, 1993	✓✓✓✓
New Jersey	2	1995, 2000	
NY Islanders	4	1980, 1981, 1982, 1983	✓✓✓✓
NY Rangers	1	1994	
Philadelphia	2	1974, 1975	✓
Pittsburgh	2	1991, 1992	✓
Toronto	1	1967	
<i>TOTAL:</i>	<i>36</i>	<i>1967-2002</i>	<i>6 Clubs</i>

Stanley Cup Finalists Summary (1967-2002)

Team:	# of Finalists	Years:	Winner in a Previous or Subsequent Year:
Boston	5	1974, 1977, 1978, 1988, 1990	
Buffalo	2	1975, 1999	
Calgary	1	1986	
Carolina	1	2002	
Chicago	3	1971, 1973, 1992	
Dallas / Minnesota	3	1981, 1991, 2000	✓
Detroit	1	1995	
Edmonton	1	1983	✓✓
Florida	1	1996	
Los Angeles	1	1993	
Montreal	2	1967, 1989	✓✓
New Jersey	1	2001	✓
NY Islanders	1	1984	✓
NY Rangers	2	1972, 1979	
Philadelphia	5	1976, 1980, 1985, 1987, 1997	✓
St. Louis	3	1968, 1969, 1970	
Vancouver	2	1982, 1994	
Washington	1	1998	
<i>TOTAL:</i>	<i>36</i>	<i>1967-2002</i>	<i>6 Clubs</i>

APPENDIX G

Summary of NHL Expert Profiles

Source: Hockey Hall of Fame and Museum (2001). *NHL player search*. Retrieved January 16, 2003, from <http://www.legendsofhockey.net/html/search.htm>

Summary of NHL Expert Profiles

Name	Pos.	# of NHL Seasons	NHL Career	NHL Teams	NHL Season Games	NHL Playoff Games	NHL 1st Team All *	NHL 2nd Team All *	NHL All-Rookie Team	All * Games
Bower, Johnny	G	15	53-70	NYR, TOR	552	74	1	0	0	4
Carbonneau, Guy	C	19	80-00	MTL, STL, DAL	1318	231	0	0	0	0
Clark, Wendel	LW	15	85-00	TOR, QUE, NYI, TB, DET, CHI	793	95	0	0	1	2
Garrett, John	G	6	79-85	HAR, QUE, VAN	201	9	0	0	0	1
Gartner, Mike	RW	19	79-98	WSH, MIN, NYR, TOR, PHO	1432	122	0	0	0	7
Hartsburg, Craig	D	10	79-89	MIN	570	61	0	0	0	3
Hoggarth, Ron	REF	23	71-94		1171	71				1
Howell, Harry	D	21	52-73	NYR, LA	1411	38	1	0	0	7
Hrudey, Kelly	G	15	83-98	NYI, LA, SJ	677	85	0	0	0	0
Lafleur, Guy	RW	17	71-91	MON, NYR, QUE	1126	128	6	0	0	6
Lafontaine, Pat	C	15	83-98	NYI, BUF, NYR	865	69	0	1	0	5
Natress, Ric	D	11	82-93	MON, STL, CAL, TOR, PHI	536	67	0	0	0	0
Park, Brad	D	17	68-95	NYR, BOS, DET	1113	161	5	2	0	9
Robinson, Doug	LW	7	63-71	CHI, NYR, LA	239	11	0	0	0	0
Skinner, Jimmy	COACH	4	54-58	DET	247	26	0	0	0	0
Wall, Bob	D	8	64-72	DET, LA, STL	322	22	0	0	0	0
TOTAL:		222			12573	1270	13	3	1	45

Name	All * MVP	Hart	Conn Smythe	Pearson	Masterion	Art Ross	Norris	Lady Byng	Selke	Vezina	Draft #	Cups	"C" Ret.	# Hon.	# HOF	Other	
Bower, Johnny	0	0	0	0	0	0	0	0	0	0	2	4	0	0	1	1976	
Gower, Johnny	0	0	0	0	0	0	0	0	0	0	1979 - 44	3	1	0	0	MTL - Asst Coach	
Carbonneau, Guy	0	0	0	0	0	0	0	0	3	0	1985 - 1	0	1	0	0	Community Representative - TML	
Clark, Wendel	0	0	0	0	0	0	0	0	0	0	1971 - 38	0	0	0	0	Sportsnet - NHL analyst	
Garrett, John	0	0	0	0	0	0	0	0	0	0	1979 - 4	0	0	0	0	NHLPA - Director of Business Relations	
Gartner, Mike	1	0	0	0	0	0	0	0	0	0	1979 - 6	0	1	0	0	??? - Asst Coach	
Hartsburg, Craig	0	0	0	0	0	0	0	0	0	0							
Hoggarth, Ron	0	0	0	0	0	0	1	0	0	0		0	1	0	0	Buffalo Sabres?? - NHL Broadcaster	
Howell, Harry	0	0	0	0	0	0	0	0	0	0	1980 - 38	0	0	0	0	CBC - NHL Broadcaster	
Hrudey, Kelly	0	0	0	0	0	3	0	0	0	0	1971 - 1	5	1	0	0	1988	
Lafleur, Guy	0	2	1	3	0	0	0	0	0	0	1983 - 3	0	1	0	0	Suffered career-ending head injury in 1998	
Lafontaine, Pat	0	0	0	0	1	0	0	0	0	0	1980 - 27	1	0	0	0		
Natress, Ric	0	0	0	0	0	0	0	0	0	0	1986 - 2	0	1	0	0	1988	
Park, Brad	0	0	0	0	1	0	0	0	0	0		0	0	0	0		
Robinson, Doug	0	0	0	0	0	0	0	0	0	0		0	0	0	0		
Skinner, Jimmy	0	0	0	0	0	0	0	0	0	0		1	0	0	0		
Wall, Bob	0	0	0	0	0	0	0	0	0	0	FA	0	1	0	0		
TOTAL	1	2	1	3	2	3	1	0	3	2	14	8	8	0	1	5	

APPENDIX H

Sample Cover Letter



July 16, 2001

Dear Mr. Smith,

I am writing to you to introduce myself as a graduate student in Sport Management at the University of Windsor. My Master's thesis is concerned with salary determination in the National Hockey League (NHL) from the standpoint of employee equity. Due to the fact that contract negotiations in the NHL are based on human decision making, its subjectivity makes it a very imprecise method of determining the economic livelihood of a professional hockey player.

You have been identified as an expert in the field of professional ice hockey, and as such, your opinions regarding this subject matter are highly valued by the researcher. Participation in this study will consist of completing three rounds of questioning as prescribed by the Delphi technique being employed in this study. This method of investigation will require you to respond to an on-line, World Wide Web-based questionnaire which will then be summarized by the researcher and returned to all participants for a second and third round.

Essentially, the results from this exploratory study will provide the researcher with the information necessary to construct a compensation model which will provide an equitable and objective measure for determining the value of an NHL player's salary. The implementation of such a model may have considerable implications for labour relations, competitive parity, and hopefully, fan support in the NHL. Please rest assured that **any information that you provide in this study will remain strictly confidential!**

In anticipation of your cooperation, I have provided you with a username and password that you will require to access the questionnaire.

Username: rsmith

Password: 54115

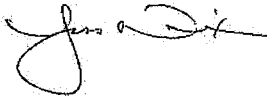
The questionnaire may be found at the following URL:

<http://thenetnow.com/nhl-welcome/>

It would be much appreciated if you could **please complete the questionnaire by August 15, 2001** so that I may receive it and summarize the results in a timely manner. Subsequent questionnaires will be posted on the Internet within two weeks of my receiving all of the completed questionnaires. You will be notified of their posting via email. If at any time during the process you wish to discuss this study or the significance of your involvement, please don't hesitate to contact me or my advisor, Dr. Boucher. For your convenience, a copy of the collective findings of this study will be posted on the Internet upon its completion.

I respect that this is a very busy point in the season for you, and I sincerely appreciate any time that you can put forth to assist me in the completion of my studies.

Yours in Sport,



Jess Dixon

Home: (905) 973-3425

Email: dixon@uwindsor.ca

Advisor: Dr. Robert L. Boucher

Phone: (519) 253-3000 x. 5106

Email: bouche4@uwindsor.ca

KINESIOLOGY

FACULTY OF HUMAN KINETICS

401 SUNSET, WINDSOR ONTARIO, CANADA N9B 3P4 . 519 / 253-3000

FAX 519 / 973-7056

APPENDIX I

Follow-up Letter

September 19, 2001

Dear Mr. Smith,

This letter serves to follow up on a previous letter that I wrote to you approximately 5-6 weeks ago regarding the research that I am conducting as part of my Master's Thesis at the University of Windsor. Unfortunately, I did not receive a response from you via the on-line, World Wide Web-based survey that I had made available to all who wished to participate. As a result of the relatively low response rate that I received following the first disbursement of letters, I have included a printed version of the survey and a return envelope as part of this package so that you may still have the opportunity to participate in this very important study.

To serve as a reminder, my Master's thesis is concerned with salary determination in the National Hockey League (NHL) from the standpoint of employee equity. Due to the fact that contract negotiations in the NHL are based on human decision making, its subjectivity makes it a very imprecise method of determining the economic livelihood of a professional hockey player.

You have been identified as an expert in the field of professional ice hockey, and as such, your opinions regarding this subject matter are highly valued by the researcher. Participation in this study will consist of completing three rounds of questioning as prescribed by the Delphi technique being employed in this study. This method of investigation will require you to respond to an on-line, World Wide Web-based, or paper and pen based questionnaire which will then be summarized by the researcher and returned to all participants for a second and third round.

Essentially, the results from this exploratory study will provide the researcher with the information necessary to construct a compensation model which will provide an equitable and objective measure for determining the value of an NHL player's salary. The implementation of such a model may have considerable implications for labour relations, competitive parity, and hopefully, fan support in the NHL. Please rest assured that **any information that you provide in this study will remain strictly confidential!**

Should you still wish to participate using the on-line, World Wide Web-based questionnaire, I have provided you with a username and password that you will require to access the questionnaire.

Username: rsmith

Password: 54115

The questionnaire may be found at the following URL:

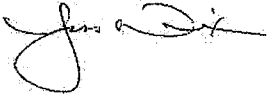
<http://thenetnow.com/nhl-welcome/>

If you should decide to complete the printed version of the questionnaire, it can be found in the return envelope that has been included with this letter. All that is required to complete the printed version of the questionnaire is a pen or pencil to indicate your responses. This round of questioning is composed of two sections with two distinct types of questions. Please read through the instructions carefully prior to commencing the survey as they appear on the reverse side of this page.

It would be much appreciated if you could **please complete and return the questionnaire by October 15, 2001** so that I may receive it and summarize the results in a timely manner. Subsequent questionnaires will be posted on the Internet, and/or mailed out within two weeks of my receiving all of the completed questionnaires. You will be notified of their posting via email or by having the subsequent questionnaires mailed to you depending on the method you choose to utilize. If at any time during the process you wish to discuss this study or the significance of your involvement, please don't hesitate to contact me or my advisor, Dr. Boucher. For your convenience, a copy of the collective findings of this study will be posted on the Internet and/or mailed out upon its completion.

Once again, I respect that this is a very busy point in the season for you, and I sincerely appreciate any time that you can put forth to assist me in the completion of my studies.

Yours in Sport,



Jess Dixon

Home: (905) 973-3425

Email: dixon@uwindsor.ca

Advisor: Dr. Robert L. Boucher

Phone: (519) 253-3000 x. 5106

Email: bouche4@uwindsor.ca

KINESIOLOGY

FACULTY OF HUMAN KINETICS

401 SUNSET, WINDSOR ONTARIO, CANADA N9B 3P4, 519 / 253-3000

FAX 519 / 973-7056

APPENDIX J

Modified Delphi Round One



☆ INSTRUCTIONS FOR SECTION A ☆

In this section, you will be provided with a series of 10 questions that require you to indicate how important specific performance and non-performance variables are in determining the salary of an NHL forward. For *all* of the questions in this section, please indicate how important each variable is by circling the number that most accurately represents the strength of your opinion regarding the importance of each variable on the 10-point scale provided. The following is an example of the 10-point scale that you will be using to indicate your responses:

NO IMPORTANCE WHATSOEVER IMPORTANT EXTREMELY IMPORTANT

0 1 2 3 4 5 6 7 8 9 10

In addition, within each question, you will be provided with the opportunity to add any additional variables that you consider to be important, which have not been considered in the construction of the survey. For each of these added variables, you will also be required to indicate how important they are in determining the salary of an NHL forward. You may add additional variables by writing them in the 'Text Boxes' provided. The following is an example of the 'Text Boxes' that you will be using to enter any additional variables as they may be needed throughout the questionnaire:

Other:

Lastly, within this section you will be requested to provide a brief rationale or reasoning for *each* of your responses which will be used in subsequent rounds of questioning. You may indicate the rationale for your responses by writing them in the 'Scrolling Text Boxes' provided. The following is an example of the 'Scrolling Text Boxes' that you will be using to enter the rationales for your responses:

Rationale:

☆ INSTRUCTIONS FOR SECTION B ☆

In this section, you have been allocated 100 importance points which may be used to indicate the relative importance of a list of salary factors. This section requires you to indicate the number of points that you would assign to each salary factor based on the relative importance they should have in determining the salary of an NHL forward.

Please note that the grand total of all points allocated *must* equal 100 points!

For this question, you may indicate the relative importance of each salary factor by writing in the number of points that you have assigned to each salary factor into the specified 'Text Boxes'. The following is an example of the 'Text Boxes' that you will be using to enter the values as they relate to the relative importance of each salary factor:

Salary Factor	Salary Variables	# of Points Allocated
a) Offensive Performance	Includes such variables as: goals, assists, shots on goal, shooting percentage, total face-offs, face-off winning percentage, and power-play ice time.	<input type="text"/> points

ONCE YOU HAVE COMPLETED ALL OF THE QUESTIONS, PLEASE INSERT THE SURVEY INTO THE RETURN ENVELOPE AND DEPOSIT IN YOUR NEAREST MAILBOX.

Thank you once again for your time and consideration!

☆ SECTION A ☆

Question 1:

In your expert opinion, how important should the following offensive performance variables be in determining the salary of an NHL forward?

Variable:	NO IMPORTANCE WHATSOEVER				IMPORTANT				EXTREMELY IMPORTANT			
	0	1	2	3	4	5	6	7	8	9	10	
a) Goals:	Rationale:											
b) Assists:	Rationale:											
c) Points:	Rationale:											
d) Points per Game:	Rationale:											
e) Shots on Goal:	Rationale:											
f) Shooting Percentage:	Rationale:											
g) Total Face-offs:	Rationale:											
h) Face-off Winning Percentage:	Rationale:											
i) Other (1):	Rationale:											
j) Other (2):	Rationale:											
k) Other (3):	Rationale:											

Question 2:

In your expert opinion, how important should the following defensive performance variables be in determining the salary of an NHL forward?

Variable:	NO IMPORTANCE WHATSOEVER				IMPORTANT				EXTREMELY IMPORTANT			
	0	1	2	3	4	5	6	7	8	9	10	
a) Plus / Minus Rating:	Rationale:											
b) Total number of Takeaways:	Rationale:											
c) Total number of Giveaways:	Rationale:											
d) Total number of Shots Blocked:	Rationale:											

e) Frank J. Selke Trophy Voting: <input type="checkbox"/> An annual award "to the forward who best excels in the defensive aspects of the game."	0 1 2 3 4 5 6 7 8 9 10 Rationale:
f) Other (1):	0 1 2 3 4 5 6 7 8 9 10 Rationale:
g) Other (2):	0 1 2 3 4 5 6 7 8 9 10 Rationale:
h) Other (3):	0 1 2 3 4 5 6 7 8 9 10 Rationale:

Question 3:

In your expert opinion, how important should the following leadership variables be in determining the salary of an NHL forward?

Variable:	NO IMPORTANCE WHATSOEVER	IMPORTANT	EXTREMELY IMPORTANT
a) Captaincy: <input type="checkbox"/> Being recognized as a particular team's 'Captain' or 'Alternate Captain'.	0 1 2 3 4 5 6 7 8 9 10	Rationale:	
b) Experience (Career Years): <input type="checkbox"/> The total number of years a player has played in the NHL throughout his career.	0 1 2 3 4 5 6 7 8 9 10	Rationale:	
c) Experience (Career Games): <input type="checkbox"/> The total number of games a player has played in the NHL throughout his career.	0 1 2 3 4 5 6 7 8 9 10	Rationale:	
d) Experience (Games Played): <input type="checkbox"/> The total number of games a player has played in during the past NHL season.	0 1 2 3 4 5 6 7 8 9 10	Rationale:	
e) Experience (Ice Time): <input type="checkbox"/> The average amount of ice time that a player receives per game during the past NHL season (measured in minutes).	0 1 2 3 4 5 6 7 8 9 10	Rationale:	
f) Lady Byng Memorial Trophy Voting: <input type="checkbox"/> An annual award "to the player adjudged to have exhibited the best type of sportsmanship and gentlemanly conduct combined with a high standard of playing ability."	0 1 2 3 4 5 6 7 8 9 10	Rationale:	
g) Bill Masterton Memorial Trophy voting: <input type="checkbox"/> An annual award to "the National Hockey League player who best exemplifies the qualities of perseverance, sportsmanship, and dedication to hockey."	0 1 2 3 4 5 6 7 8 9 10	Rationale:	

h) King Clancy Memorial Trophy winner: ■ An annual award "to the player who best exemplifies leadership qualities on and off the ice and has made a noteworthy humanitarian contribution in his community."	0 1 2 3 4 5 6 7 8 9 10
	Rationale:
i) Other (1):	0 1 2 3 4 5 6 7 8 9 10
	Rationale:
j) Other (2):	0 1 2 3 4 5 6 7 8 9 10
	Rationale:
k) Other (3):	0 1 2 3 4 5 6 7 8 9 10
	Rationale:

Question 4:

In your expert opinion, how important should the following robustness variables be in determining the salary of an NHL forward?

Variable:	NO IMPORTANCE WHATSOEVER	IMPORTANT	EXTREMELY IMPORTANT
a) Penalties in Minutes:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
b) Number of Major Penalties:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
c) Number of Minor Penalties:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
d) Number of Fighting Penalties:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
e) Number of Roughing Penalties:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
f) Number of Holding, Hooking or Tripping Penalties:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
g) Hits:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
h) Other (1):	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
i) Other (2):	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
j) Other (3):	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		

Question 5:

In your expert opinion, how important should the following fan appeal variables be in determining the salary of an NHL forward?

Variable:	NO IMPORTANCE WHATSOEVER	IMPORTANT	EXTREMELY IMPORTANT
a) All-Star Game Fan Balloting: <input checked="" type="checkbox"/> The starting players for the World and North American teams are selected by the fans on the basis of total number of votes cast in the NHL All-Star Fan Balloting program.	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			
b) Total Number of Career All-Star Game Starting Line-ups:	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			
c) Other (1):	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			
d) Other (2):	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			
e) Other (3):	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			

Question 6:

In your expert opinion, how important should the following rookie variables be in determining the salary of an NHL forward?

Variable:	NO IMPORTANCE WHATSOEVER	IMPORTANT	EXTREMELY IMPORTANT
a) Draft Selection: <input checked="" type="checkbox"/> The rank at which the player was chosen in the NHL Entry Draft.	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			
b) NHL Rookie of the Month Selections: <input checked="" type="checkbox"/> The NHL's Public Relations Department selects a Rookie of the Month during the course of the regular season.	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			
c) NHL All-Rookie Team Balloting: <input checked="" type="checkbox"/> The six members of the NHL All-Rookie Team is selected through a balloting process conducted by the Professional Hockey Writers' Association.	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			
d) NHL Central Scouting Bureau Rating: <input checked="" type="checkbox"/> The rank at which the player was rated by the NHL Central Scouting Bureau.	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			
e) Calder Memorial Trophy Voting: <input checked="" type="checkbox"/> An annual award "to the player selected as the most proficient in his first year of competition in the National Hockey League."	0	1 2 3 4 5 6 7 8 9 10	
Rationale:			

f) Other (1):	0 1 2 3 4 5 6 7 8 9 10
	Rationale:
g) Other (2):	0 1 2 3 4 5 6 7 8 9 10
	Rationale:
h) Other (3):	0 1 2 3 4 5 6 7 8 9 10
	Rationale:

Question 7:

In your expert opinion, how important should the following superstar variables be in determining the salary of an NHL forward?

Variable:	NO IMPORTANCE WHATSOEVER	IMPORTANT	EXTREMELY IMPORTANT
a) All-Star team Balloting: <input checked="" type="checkbox"/> The members of the NHL's First and Second All-Star Team are selected through a balloting process conducted by the Professional Hockey Writers' Association.	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
b) Bud Light NHL All-Star Game MVP Award Selection: <input checked="" type="checkbox"/> Awarded to the player adjudged to be the Most Valuable Player in the NHL's Annual All-Star Game.	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
c) NHL Player of the Week Selections: <input checked="" type="checkbox"/> The NHL's Public Relations Department selects a Player of the Week during the course of the regular season for the seven-day period from Monday through Sunday.	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
d) NHL Player of the Month Selections: <input checked="" type="checkbox"/> The NHL's Public Relations Department selects a Player of the Month during the course of the regular season.	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
e) Game Star Points: <input checked="" type="checkbox"/> The sum of all the Game Stars a player receives during a season: First Star = 5 points, Second Star = 3 points, Third Star = 1 point.	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
f) Hart Memorial Trophy voting: <input checked="" type="checkbox"/> An annual award "to the player adjudged to be the most valuable to his team."	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
g) Conn Smythe Trophy voting: <input checked="" type="checkbox"/> An annual award "to the most valuable player for his team in the playoffs."	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		

h) Lester B. Pearson Award voting: <input checked="" type="checkbox"/> An annual award presented to the NHL's outstanding player as selected by the members of the National Hockey League Players' Association.	0 1 2 3 4 5 6 7 8 9 10
	Rationale:
i) Other (1):	0 1 2 3 4 5 6 7 8 9 10
	Rationale:
j) Other (2):	0 1 2 3 4 5 6 7 8 9 10
	Rationale:
k) Other (3):	0 1 2 3 4 5 6 7 8 9 10
	Rationale:

Question 8:

In your expert opinion, how important should the following types of goals be in determining the salary of an NHL forward?

Variable:	NO IMPORTANCE WHATSOEVER	IMPORTANT	EXTREMELY IMPORTANT
a) Even-strength goals:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
b) Power-play goals:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
c) Short-handed goals:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
d) Game-winning goals:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
e) Game-tying goals:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
f) Clutch goals: <input checked="" type="checkbox"/> Goals scored in Overtime and in the last 10 minutes of the Third Period, when the score differential is zero or one goal.	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
g) Blowout goals: <input checked="" type="checkbox"/> Goals scored at any time that the score differential is five goals or greater.	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
h) Penalty-shot goals:	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
i) Other (1):	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
j) Other (2):	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		
k) Other (3):	0 1 2 3 4 5 6 7 8 9 10		
	Rationale:		

Question 9:

In your expert opinion, how important should the following types of assists be in determining the salary of an NHL forward?

Variable:	NO IMPORTANCE WHATSOEVER	IMPORTANT	EXTREMELY IMPORTANT								
a) Even-strength assists:	0	1	2	3	4	5	6	7	8	9	10
Rationale:											
b) Power-play assists:	0	1	2	3	4	5	6	7	8	9	10
Rationale:											
c) Short-handed assists:	0	1	2	3	4	5	6	7	8	9	10
Rationale:											
d) Clutch assists: <input checked="" type="checkbox"/> Assists on goals scored in Overtime and in the last 10 minutes of the Third Period, when the score differential is zero or one goal.	0	1	2	3	4	5	6	7	8	9	10
Rationale:											
e) Blowout assists: <input checked="" type="checkbox"/> Assists on goals scored at any time that the score differential is five goals or greater.	0	1	2	3	4	5	6	7	8	9	10
Rationale:											
f) Other (1):	0	1	2	3	4	5	6	7	8	9	10
Rationale:											
g) Other (2):	0	1	2	3	4	5	6	7	8	9	10
Rationale:											
h) Other (3):	0	1	2	3	4	5	6	7	8	9	10
Rationale:											

☆ SECTION B ☆

Question 1:

You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following factors based on the importance they should have in determining the salary of an NHL forward.

☆ Remember that the grand total of all points allocated must equal 100 points! ☆

Salary Factor	Salary Variables	# of Points Allocated
a) Offensive Performance	Includes such variables as: goals, assists, points, points per game, shots on goal, shooting percentage, total face-offs, and face-off winning percentage.	<input type="text"/> points
b) Defensive Performance	Includes such variables as: plus / minus rating, total number of takeaways, total number of giveaways, total number of shots blocked, and Frank J. Selke Trophy voting.	<input type="text"/> points
c) Leadership	Includes such variables as: captaincy, experience (career years), experience (career games), experience (games played) experience (ice time), Lady Byng Memorial Trophy voting, Bill Masterton Memorial Trophy voting, and King Clancy Memorial Trophy voting.	<input type="text"/> points
d) Robustness	Includes such variables as: penalties in minutes, number of majors, number of minors, number of fighting penalties, number of roughing penalties, number of hooking, holding or tripping penalties, and hits.	<input type="text"/> points
e) Fan Appeal	Includes such variables as: All-Star Game fan balloting, and number of career All-Star Game Starting Line-ups.	<input type="text"/> points
f) Rookie	Includes such variables as: draft selection, NHL Rookie of the Month selections, NHL All-Rookie Team balloting, NHL Central Scouting Bureau rating, and Calder Memorial Trophy voting.	<input type="text"/> points
g) Superstar	Includes such variables as: All-Star team balloting, Bud Light NHL All-Star Game MVP Award selection, NHL Player of the Week selections, NHL Player of the Month selections, Game Star Points, Hart Memorial Trophy voting, Conn Smythe Trophy voting, and Lester B. Pearson Award voting	<input type="text"/> points

APPENDIX K

Median and Mode Results

Section A:

Offensive Performance Variables

Variable	Median			Mode		
	R1	R2	R3	R1	R2	R3
Goals	9	25	35	10	20	35
Assists	7	20	20	7	20	20
Points	9	15	15	9	20	15
Points per Game	8	10	15	8	10	15
Shots on Goal	6	5	5	6	5	2
Shooting Percentage	5	0	2	5	0	0
Total Face-offs	5	5	5	5	5	5
Face-off Winning Percentage	7	5	7	7	5	10

Defensive Performance Variables

Variable	Median			Mode		
	R1	R2	R3	R1	R2	R3
Plus / Minus Rating	6	20	20	6	20	20
Total number of Takeaways	6	10	15	5	10	15
Total number of Giveaways	6	20	20	8	10	20
Total number of Shots Blocked	5	20	20	8	10	15
Frank J. Selke Trophy voting	7	25	30	7	30	30

Leadership Variables

Variable	Median			Mode		
	R1	R2	R3	R1	R2	R3
Captaincy	6.5	10	15	6	10	15
Experience (Career Years)	7	15	15	7	20	15
Experience (Career Games)	6.5	20	15	7	20	15
Experience (Games Played)	6.5	20	20	5	10	20
Experience (Ice Time)	7.5	20	20	8	10	20
Lady Byng Memorial Trophy voting	5	5	3	3	5	2
Bill Masterton Memorial Trophy voting	4	0	2.5	4	0	2
King Clancy Memorial Trophy voting	5	5	5	5	0	5

Robustness Variables

Variable	Median			Mode		
	R1	R2	R3	R1	R2	R3
Penalties in Minutes	4	12.5	10	4	n/a	10
Number of Major Penalties	3	12.5	15	2	n/a	10
Number of Minor Penalties	3	10	10	3	10	10
Number of Fighting Penalties	3	20	15	3	20	15
Number of Roughing Penalties	3	12.5	15	1	10	15
Hits	6	30	30	6	30	30

Fan Appeal Variables

Variable	Median			Mode		
	R1	R2	R3	R1	R2	R3
All-Star Game Fan balloting	5	35	45	5	30	50
Total Number of Career All-Star Game Starting Lineups	5	65	55	4	70	50

Rookie Variables

Variable	Median			Mode		
	R1	R2	R3	R1	R2	R3
Draft Selection	7	30	30	8	10	30
NHL Rookie of the Month selections	6	10	10	6	40	10
NHL All-Rookie Team balloting	6	15	15	2	10	10
NHL Central Scouting Bureau rating	5	10	10	2	15	10
Calder Memorial Trophy voting	7	30	40	5	30	40

Superstar Variables

Variable	Median			Mode		
	R1	R2	R3	R1	R2	R3
All-Star Team balloting	7	10	5	7	10	5
Bud Light NHL All-Star Game MVP Award selection	4	5	5	5	0	5
NHL Player of the Week selections	5	10	5	5	20	5
NHL Player of the Month selections	5	5	10	5	5	10
Game Star Points	5	5	5	4	10	5
Hart Memorial Trophy voting	8	30	35	8	30	35
Conn Smythe Trophy voting	8	10	15	9	5	10
Lester B. Pearson Award voting	8	10	15	8	10	15

Types of Goals

Variable	Median			Mode		
	R1	R2	R3	R1	R2	R3
Even-strength goals	8	30	30	8	30	30
Power-play goals	7	15	20	8	15	20
Short-handed goals	7	10	10	8	10	10
Game-winning goals	8	15	15	8	15	10
Game-tying goals	7	10	8	7	10	10
Clutch goals	8	15	12	8	15	15
Blowout goals	3	5	2	3	5	5
Penalty-shot goals	3.5	0	2	2	0	0

Types of Assists

Variable	Median			Mode		
	R1	R2	R3	R1	R2	R3
Even-strength assists	7.5	30	25	8	30	25
Power-play assists	7	20	25	8	20	25
Short-handed assists	7	20	15	8	20	15
Clutch assists	8	20	25	8	20	25
Blowout assists	4	10	5	3	10	10

Section B:

Salary Factors

Salary Factor	Median			Mode		
	R1	R2	R3	R1	R2	R3
Offensive Performance	35	37.5	35	40	30	30
Defensive Performance	20	20	20	20	20	20
Leadership	15	12.5	10	20	15	10
Robustness	5	5	6	5	5	10
Fan Appeal	3.5	5	5	0	5	5
Rookie	5	5	5	0	5	5
Superstar	7.5	10	15	5	10	15

APPENDIX L

Sample NHL Game Report

Source: National Hockey League (2000, December 6). *NHL Game report: Toronto at Detroit* (Game 0405). New York, NY: Author.

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

Club Playing Roster

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

TORONTO MAPLE LEAFS				DETROIT RED WINGS			
#	Pos	Name		#	Pos	Name	
30	G	GLENN HEALY		30	G	CHRIS OSGOOD	
31	G	CURTIS JOSEPH		34	G	MANNY LEGACE	
3	D	DAVE MANSON		5	D	NICKLAS LIDSTROM	A
7	L	GARY ROBERTS	A	11	R	MATHIEU DANDENAULT	
8	R	DMITRI KHRISTICH		13	L	VYACHESLAV KOZLOV	
9	C	NIK ANTROPOV		14	L	BRENDAN SHANAHAN	A
13	C	MATS SUNDIN	C	15	R	PAT VERBEEK	
14	R	JONAS HOGLUND		17	R	DOUG BROWN	
15	D	TOMAS KABERLE		18	L	KIRK MALTBY	
16	C	DARCY TUCKER		19	C	STEVE YZERMAN	C
21	C	ADAM MAIR		20	R	MARTIN LAPOINTE	
22	C	IGOR KOROLEV		23	D	TODD GILL	
24	D	BRYAN MCCABE		25	R	DARREN MCCARTY	
27	L	SHAYNE CORSON		27	D	AARON WARD	
28	R	TIE DOMI		28	D	STEVE DUCHESNE	
36	D	DIMITRI YUSHKEVICH	A	33	C	KRIS DRAPER	
43	L	NATHAN DEMPSEY		41	C	BRENT GILCHRIST	
44	C	YANIC PERREAULT		55	D	LARRY MURPHY	
55	D	DANNY MARKOV		91	C	SERGEI FEDOROV	
94	L	SERGEI BEREZIN		96	L	TOMAS HOLMSTROM	
Scratches							
4	D	CORY CROSS		2	D	JIRI FISCHER	
10	R	GARRY VALK		21	C	BOYD DEVEREAUX	
23	D	PETR SVOBODA		22	C	YURI BUTSAYEV	
32	L	STEVE THOMAS					
Head Coaches							
PAT QUINN				SCOTTY BOWMAN			

Referee: Don Koharski
Referee: Kevin Pollock
Linesman: Danny McCourt
Linesman: Mark Wheler

* Starting Lineup in Bold

VISITOR

HOME



3

TORONTO MAPLE LEAFS
Game 28 Away Game 12

Game Summary

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

0



DETROIT RED WINGS
Game 29 Home Game 15

This NHL Game Report is provided courtesy of the NHL to members of the credentialed media for their exclusive use for news and editorial purposes only and not for any commercial purpose. Any reproduction, use or distribution of this material for a commercial purpose without the express written permission of the NHL is prohibited.

SCORING SUMMARY

G	Per	Time	Team	Goal Scorer	Assist	Assist	TOR	DET	STR
1	1	3:39	TOR	M. SUNDIN (9)	J. HOGGLUND (8)	D. YUSHKEVICH (11)	13 8 31 24 15 14	5 91 34 20 13 11	EV
2	1	16:10	TOR	M. SUNDIN (10)	J. HOGGLUND (9)	D. YUSHKEVICH (12)	13 8 55 36 31 14	5 34 19 18 14 11	EV
3	3	2:18	TOR	Y. PERREAULT (7)	D. MANSON (4)	S. BEREZIN (15)	44 3 94 43 31 22	5 91 34 19 18 14	EV

TORONTO MAPLE LEAFS

#	Per	Time	Player	PIM	Penalty
1	1	9:52	28 T. DOMI	2:00	Interference
2	1	12:31	3 D. MANSON	5:00	Fighting (maj)
3	1	18:38	16 D. TUCKER	2:00	Roughing
4	1	19:51	14 J. HOGGLUND	2:00	Tripping
5	1	19:59	24 B. MCCABE	5:00	Fighting (maj)
6	2	5:47	27 S. CORSON	2:00	Holding - Obstruction
7	3	8:01	44 Y. PERREAULT	2:00	Slashing
8	3	8:44	28 T. DOMI	2:00	Tripping

DETROIT RED WINGS

#	Per	Time	Player	PIM	Penalty
1	1	12:31	20 M. LAPOINTE	5:00	Fighting (maj)
2	1	18:08	96 T. HOLMSTROM	2:00	Unsportsmanlike conduct
3	1	19:59	14 B. SHANAHAN	5:00	Fighting (maj)
4	2	9:13	27 A. WARD	2:00	Roughing

GOALS BY PER.

	TOR	DET
1	2	0
2	0	0
3	1	0
T	3	0

SHOTS ON GOAL

	TOR	DET
1	9	9
2	3	12
3	7	8
T	19	29

PENALTIES-MIN

	TOR	DET
1	5-16	3-12
2	1-2	1-2
3	2-4	0-0
T	8-22	4-14

POWERPLAY
(GOALS-OPP)

	TOR	DET
1	0-1	0-2
2	0-1	0-2
3	0-0	0-2
T	0-2	0-6
Time	3:13	11:13

ZONE TIME

	TOR	DET	Neutral
1	7:33	8:24	4:03
2	7:13	8:12	4:35
3	8:53	6:39	4:28
T	23:39	23:15	13:06

GOALIES (GOALS-SHOTS AGAINST)

	1	2	3	T	Time
TOR(W) JOSEPH	0-9	0-12	0-8	0-29	60:00
DET(L) LEGACE	2-9	0-3	1-7	3-19	60:00

THREE STARS

1 TOR	31	C. JOSEPH
2 TOR	13	M. SUNDIN
3 TOR	14	J. HOGGLUND

by: Bob Duff Windsor Star

OFFICIALS

Referee:	Don Katerski
Referee:	Kevin Pollock
Linesman:	Danny McCourt
Linesman:	Mark Whelan

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

3

Event Summary

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME

0



DETROIT RED WINGS
Game 29 Home Game 15

This NHL Game Report is provided courtesy of the NHL to members of the credentialed media for their exclusive use for news and editorial purposes only and not for any commercial purpose. Any reproduction, use or distribution of this material for a commercial purpose without the express written permission of the NHL is prohibited.

		TORONTO MAPLE LEAFS		+/-	TOI	SHF	SHOTS																			
							1	2	3	OT	T	MS	FW	FL	F%	PN	PIM	HT	TK	GV	BS					
30	G	HEALY, GLENN			0:00																					
31	G	JOSEPH, CURTIS			60:00																					
3	D	MANSON, DAVE	+1	15:58	21																					
7	L	ROBERTS, GARY	E	18:50	19	1			1		2	1				1	5	2	2							
8	R	KHRISTICH, DMITRI	+2	18:27	20				1		1															
9	C	ANTROPOV, NIK	E	4:25	6																					
13	C	SUNDIN, MATS	+2	18:18	23	2			1		3	1	9	11	45											
14	R	HOGLUND, JONAS	+2	13:48	20			1			1	1	1		100	1	2									
15	D	KABERLE, TOMAS	+1	21:55	23				1		1															
16	C	TUCKER, DARCY	E	20:08	20	1					1															
21	C	MAIR, ADAM	E	6:23	10						1		11	7	81	1	2	5								
22	C	KOROLEV, IGOR	+1	16:50	19																					
24	D	MCCABE, BRYAN	+1	18:48	19	1					1		1	1	2	33										
27	L	CORSON, SHAYNE	E	18:22	20	1					1					1	5	1								
28	R	DOMI, TIE	E	8:27	12	1					1					1	2		1							
36	D	YUSHKEVICH, DIMITRI	+1	25:49	23											2	4	1								
43	L	DEMPSEY, NATHAN	+1	13:04	22	1	1	1			3							7								
44	C	PERREAULT, YANIC	+1	13:38	16				1		1	1	3	8	27	1	2	1								
55	D	MARKOV, DANNY	+1	24:28	25																					
94	L	BEREZIN, SERGEI	+1	14:26	17	1	1	1			3							1	3	1	1					
		TEAM TOTALS	15				9	3	7	0	19	6	27	30	47	8	22	23	6	7						

		DETROIT RED WINGS	+	-	TOI	SHF	SHOTS																			
							1	2	3	OT	T	MS	FW	FL	F%	PN	PIM	HT	TK	GV	BS					
30	G	OSGOOD, CHRIS			0:00																					
34	G	LEGACE, MANNY			60:00																					
5	D	LIDSTROM, NICKLAS																								
11	R	DANDENAULT, MATHIEU																								
13	L	KOZLOV, VYACHESLAV																								
14	L	SHANAHAN, BRENDAN																								
15	R	VERBEEK, PAT																								
17	R	BROWN, DOUG																								
18	L	MALTBY, KIRK																								
19	C	YZERMAN, STEVE																								
20	R	LAPOINTE, MARTIN																								
23	D	GILL, TODD																								
25	R	MCCARTY, DARREN																								
27	D	WARD, AARON																								
28	D	DUCHESNE, STEVE																								
33	C	DRAPER, KRIS																								
41	C	GILCHRIST, BRENT																								
55	D	MURPHY, LARRY																								
91	C	FEDOROV, SERGEI																								
96	L	HOLMSTROM, TOMAS																								
		TEAM TOTALS																								

TOI = Time On Ice SHF = # of Shifts MS = Missed Shots FW = Faceoffs Won FL = Faceoffs Lost F% = Faceoff Win Percentage
PN = Number of Penalties PIM = Penalty Minutes HT = Hits Given TK = Takeaways GV = Giveaways BS = Blocked Shots

(C) Copyright 2000, National Hockey League

2000-12-06-22.07.45

207

Page 1/1

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

Shift Chart

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

		TORONTO MAPLE LEAFS	1	2	3
30	G	HEALY, GLENN			
31	G	JOSEPH, CURTIS			
3	D	MANSON, DAVE			
7	L	ROBERTS, GARY			
8	R	KHRISTICH, DMITRI			
9	C	ANTROPOV, NIK			
13	C	SUNDIN, MATS			
14	R	HOGLUND, JONAS			
15	D	KABERLE, TOMAS			
16	C	TUCKER, DARCY			
21	C	MAIR, ADAM			
22	C	KOROLEV, IGOR			
24	D	MCCABE, BRYAN			
27	L	CORSON, SHAYNE			
28	R	DOMI, TIE			
38	D	YUSHKEVICH, DIMITRI			
43	L	DEMPSEY, NATHAN			
44	C	PERREAULT, YANIC			
65	D	MARKOV, DANNY			
94	L	BEZGIN, SERGEI			

		DETROIT RED WINGS	1	2	3
30	G	OSGOOD, CHRIS			
34	G	LEGACE, MANNY			
5	D	LIDSTROM, NICKLAS			
11	R	DANDENAULT, MATHIEU			
13	L	KOZLOV, VYACHESLAV			
14	L	SHANAHAN, BRENDAN			
15	R	VERBEEK, PAT			
17	R	BROWN, DOUG			
18	L	MALTBY, KIRK			
19	C	YZERMAN, STEVE			
20	R	LAPOINTE, MARTIN			
23	D	GILL, TODD			
25	R	MCCARTY, DARREN			
27	D	WARD, AARON			
28	D	UCHESNE, STEVE			
33	C	DRAPER, KRIS			
41	C	GILCHRIST, BRENT			
55	D	MURPHY, LARRY			
91	C	FEDOROV, SERGEI			
96	L	HOLMSTROM, TOMAS			

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

Time On Ice Breakdown

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

		TORONTO MAPLE LEAFS	TOI	PP	SH	EV
30	G	HEALY, GLENN	0:00	0:00	0:00	0:00
31	G	JOSEPH, CURTIS	80:00	3:13	11:13	48:34
3	D	MANSON, DAVE	18:58	0:00	1:55	14:03
7	L	ROBERTS, GARY	18:50	0:39	4:09	12:02
8	R	KHRISTICH, DMITRI	18:27	2:03	2:47	11:37
9	C	ANTROPOV, NIK	4:25	0:00	0:00	4:25
13	C	SUNDIN, MATS	18:18	1:52	4:11	12:13
14	R	HOG Lund, JONAS	13:48	1:52	0:00	11:54
15	D	KABERLE, TOMAS	21:55	1:58	5:34	14:25
18	C	TUCKER, DARCY	20:08	1:21	4:17	14:28
21	C	MAIR, ADAM	8:23	0:00	0:28	5:57
22	C	KOROLEV, IGOR	18:50	0:42	3:32	12:38
24	D	MCCABE, BRYAN	18:48	1:25	5:08	12:15
27	L	CORSON, SHAYNE	18:22	1:10	3:04	14:08
28	R	DOMI, TIE	8:27	0:00	0:00	8:27
38	D	YUSHKEVICH, DIMITRI	25:49	1:48	5:03	18:58
43	L	DEMPSEY, NATHAN	13:04	0:00	0:00	13:04
44	C	PERREAULT, YANIC	13:38	0:00	0:00	13:38
55	D	MARKOV, DANNY	24:28	1:17	4:48	18:23
94	L	BEREZIN, SERGEI	14:26	0:00	0:00	14:26

		DETROIT RED WINGS	TOI	PP	SH	EV
30	G	OSGOOD, CHRIS	0:00	0:00	0:00	0:00
34	G	LEGACE, MANNY	80:00	11:13	3:13	45:34
5	D	LIDSTROM, NICKLAS	24:34	8:42	2:25	15:27
11	R	DANDENAULT, MATHIEU	18:54	0:00	1:28	17:28
13	L	KOZLOV, VYACHESLAV	18:15	2:38	0:08	15:31
14	L	SHANAHAN, BRENDAN	18:08	8:55	0:00	9:11
15	R	VERBEEK, PAT	12:49	3:41	0:00	9:08
17	R	BROWN, DOUG	11:09	1:00	0:00	10:09
18	L	MALTBY, KIRK	14:23	1:00	1:09	12:14
19	C	YZERMAN, STEVE	21:58	7:08	1:49	13:03
20	R	LAPORTE, MARTIN	15:45	2:33	0:00	13:12
23	D	GILL, TODD	14:20	0:00	0:40	13:40
25	R	MCCARTY, DARREN	12:59	0:00	0:00	12:59
27	D	WARD, AARON	18:10	0:00	1:05	15:05
28	D	DUCHESNE, STEVE	18:04	3:12	0:48	14:04
33	C	DRAPER, KRIS	14:03	0:00	2:04	11:59
41	C	GILCHRIST, BRENT	9:45	0:00	0:00	9:45
55	D	MURPHY, LARRY	18:18	3:11	0:00	13:05
91	C	FEDOROV, SERGEI	21:49	7:37	1:18	12:58
96	L	HOLMSTROM, TOMAS	14:32	8:32	0:00	8:00

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

3

Faceoff Comparison

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME

0



DETROIT RED WINGS
Game 29 Home Game 15

This NHL Game Report is provided courtesy of the NHL to members of the credentialed media for their exclusive use for news and editorial purposes only and not for any commercial purpose. Any reproduction, use or distribution of this material for a commercial purpose without the express written permission of the NHL is prohibited.

			DETROIT RED WINGS								
		TORONTO MAPLE LEAFS	Zone	17	19	20	33	41	91	Total	F%
9	C	ANTROPOV, NIK	T	1-1	0-2			1-1		2-4	50
			O	1-1						1-1	100
			D		0-1			1-1		1-2	50
			N		0-1					0-1	0
13	C	SUNDIN, MATS	T	1-1	3-3		0-1		5-15	9-20	45
			O		1-1				0-1	1-2	50
			D						3-5	3-5	60
			N	1-1	2-2		0-1		2-9	5-13	38
14	R	HOGLUND, JONAS	T		1-1					1-1	100
			O								
			D		1-1					1-1	100
			N								
18	C	TUCKER, DARCY	T	1-1	2-5		3-4	1-1	4-7	11-18	61
			O		0-1		3-3		1-2	4-6	67
			D	1-1	2-4			1-1	1-2	5-8	63
			N				0-1		2-3	2-4	50
22	C	KOROLEV, IGOR	T			0-2			1-1	1-3	33
			O			0-1				0-1	0
			D			0-1				0-1	0
			N						1-1	1-1	100
44	C	PERREAULT, YANIC	T	1-2	1-3	0-1	1-2		0-3	3-11	27
			O	1-1	1-1		0-1		0-1	2-4	50
			D		0-1	0-1			0-2	0-4	0
			N	0-1	0-1		1-1			1-3	33
		TOTAL	T							27-57	47
			O							8-14	57
			D							10-21	48
			N							9-22	41

		TORONTO MAPLE LEAFS											
	DETROIT RED WINGS	Zone	9	13	14	16	22	44	Total	F%			
17	R	BROWN, DOUG	T	0-1	0-1		0-1		1-2	1-5	20		
			O				0-1			0-1	0		
			D	0-1					0-1	0-2	0		
			N		0-1				1-1	1-2	50		
19	C	YZERMAN, STEVE	T	2-2	0-3	0-1	3-5		2-3	7-14	50		
			O	1-1		0-1	2-4		1-1	4-7	57		
			D		0-1		1-1		0-1	1-3	33		
			N	1-1	0-2				1-1	2-4	50		
20	R	LAPOINTE, MARTIN	T					2-2	1-1	3-3	100		
			O					1-1	1-1	2-2	100		
			D					1-1		1-1	100		
			N										
33	C	DRAPER, KRIS	T		1-1		1-4		1-2	3-7	43		
			O										
			D				0-3		1-1	1-4	25		
			N		1-1		1-1		0-1	2-3	67		
41	C	GILCHRIST, BRENT	T	0-1			0-1			0-2	0		
			O	0-1			0-1			0-2	0		
			D										
			N										
91	C	FEDOROV, SERGEI	T		10-15		3-7	0-1	3-3	18-26	62		
			O		2-5		1-2		2-2	5-9	56		
			D		1-1		1-2		1-1	3-4	75		
			N		7-9		1-3	0-1		8-13	62		
		TOTAL	T							30-57	53		
			O							11-21	52		
			D							6-14	43		
			N							13-22	59		

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

Play By Play

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

#	Per	Time	Event	Team	Type	Description
1	1	00:00	FACE-OFF	N/A		TOR won - neutral zone. TOR 13 SUNDIN vs DET 91 FEDOROV
2	1	00:20	HIT	DET	EV	91 FEDOROV
3	1	00:48	HIT	TOR	EV	38 YUSHKEVICH
4	1	01:14	SHOT	DET	EV	33 DRAPER, Wrist, 22 ft
5	1	01:16	HIT	TOR	EV	24 MCCABE
6	1	01:28	SHOT	DET	EV	33 DRAPER, Wrist, 34 ft
7	1	02:03	MISSED SHOT	DET	EV	18 MALTBY, Hit Crossbar
8	1	02:20	STOPPAGE	N/A		icing
9	1	02:20	FACE-OFF	N/A		TOR won - defensive zone. TOR 9 ANTROPOV vs DET 41 GILCHRIST
10	1	02:35	HIT	DET	EV	17 BROWN
11	1	02:43	GIVEAWAY	TOR	EV	38 YUSHKEVICH
12	1	03:39	GOAL	TOR	EV	13 SUNDIN, A: 14 HOGlund, 38 YUSHKEVICH, Wrist, 22 ft
TOR: 13 SUNDIN, 8 KHRISTICH, 31 JOSEPH, 24 MCCABE, 15 KABERLE, 14 HOGlund						
DET: 5 LIDSTROM, 91 FEDOROV, 34 LEGACE, 20 LAPOINTE, 13 KOZLOV, 11 DANDENAULT						
13	1	03:39	FACE-OFF	N/A		TOR won - neutral zone. TOR 13 SUNDIN vs DET 91 FEDOROV
14	1	04:03	SHOT	DET	EV	91 FEDOROV, Wrist, 43 ft
15	1	04:28	GIVEAWAY	DET	EV	91 FEDOROV
16	1	04:45	HIT	TOR	EV	16 TUCKER
17	1	04:51	GIVEAWAY	TOR	EV	43 DEMPSEY
18	1	05:03	MISSED SHOT	DET	EV	33 DRAPER, Wide of Net
19	1	05:09	HIT	DET	EV	25 MCCARTY
20	1	05:14	STOPPAGE	N/A		icing
21	1	05:14	FACE-OFF	N/A		TOR won - defensive zone. TOR 14 HOGlund vs DET 19 YZERMAN
22	1	05:19	GIVEAWAY	TOR	EV	43 DEMPSEY
23	1	05:32	TAKEAWAY	DET	EV	14 SHANAHAN
24	1	05:38	STOPPAGE	N/A		Offside
25	1	05:38	FACE-OFF	N/A		DET won - neutral zone. TOR 9 ANTROPOV vs DET 19 YZERMAN
26	1	06:03	GIVEAWAY	DET	EV	19 YZERMAN
27	1	06:11	HIT	TOR	EV	38 YUSHKEVICH
28	1	06:45	STOPPAGE	N/A		Offside
29	1	06:45	FACE-OFF	N/A		DET won - neutral zone. TOR 13 SUNDIN vs DET 91 FEDOROV
30	1	06:53	STOPPAGE	N/A		Offside
31	1	06:53	GIVEAWAY	DET	EV	91 FEDOROV
32	1	06:53	FACE-OFF	N/A		DET won - neutral zone. TOR 13 SUNDIN vs DET 91 FEDOROV
33	1	07:17	BLOCKED SHOT	DET	EV	13 KOZLOV
34	1	07:26	GIVEAWAY	DET	EV	91 FEDOROV
35	1	07:34	SHOT	DET	EV	91 FEDOROV, Slap, 56 ft
36	1	07:35	STOPPAGE	N/A		Puck in Crowd
37	1	07:35	FACE-OFF	N/A		TOR won - defensive zone. TOR 16 TUCKER vs DET 41 GILCHRIST
38	1	07:50	HIT	TOR	EV	16 TUCKER
39	1	07:58	STOPPAGE	N/A		Goalie Stopped
40	1	07:58	HIT	DET	EV	27 WARD
41	1	07:58	FACE-OFF	N/A		TOR won - offensive zone. TOR 16 TUCKER vs DET 33 DRAPER
42	1	08:03	BLOCKED SHOT	DET	EV	27 WARD
43	1	08:24	MISSED SHOT	DET	EV	33 DRAPER, Wide of Net
44	1	08:48	SHOT	TOR	EV	94 BEREZIN, Slap, 43 ft
45	1	09:11	GIVEAWAY	DET	EV	23 GILL

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

Play By Play

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

#	Per Time	Event	Team	Type	Description
46	1 09:52	PENALTY	TOR		28 DOMI, Interference, 2 min
47	1 09:52	BLOCKED SHOT	TOR	EV	55 MARKOV
48	1 09:52	FACE-OFF	N/A		DET won - offensive zone. TOR 13 SUNDIN vs DET 91 FEDOROV
49	1 10:12	TAKEAWAY	TOR	SH	55 MARKOV
50	1 10:40	BLOCKED SHOT	TOR	SH	16 TUCKER
51	1 10:45	STOPPAGE	N/A		Goalie Stopped
52	1 10:45	SHOT	DET	PP	19 YZERMAN, Wrist, 51 ft
53	1 10:45	FACE-OFF	N/A		TOR won - defensive zone. TOR 16 TUCKER vs DET 91 FEDOROV
54	1 11:03	SHOT	DET	PP	91 FEDOROV, Slap, 45 ft
55	1 11:13	GIVEAWAY	DET	PP	96 HOLMSTROM
56	1 11:54	MISSED SHOT	DET	EV	5 LIDSTROM, Wide of Net
57	1 12:02	SHOT	TOR	EV	28 DOMI, Backhand, 12 ft
58	1 12:07	STOPPAGE	N/A		Offside
59	1 12:07	FACE-OFF	N/A		DET won - neutral zone. TOR 13 SUNDIN vs DET 91 FEDOROV
60	1 12:26	SHOT	DET	EV	91 FEDOROV, Wrist, 10 ft
61	1 12:31	PENALTY	TOR		3 MANSON, Fighting (maj), 5 min
62	1 12:31	PENALTY	DET		20 LAPOINTE, Fighting (maj), 5 min
63	1 12:31	FACE-OFF	N/A		DET won - defensive zone. TOR 13 SUNDIN vs DET 91 FEDOROV
64	1 12:52	HIT	TOR	EV	28 DOMI
65	1 12:54	MISSED SHOT	TOR	EV	13 SUNDIN, Wide of Net
66	1 13:08	STOPPAGE	N/A		Goalie Stopped
67	1 13:08	FACE-OFF	N/A		TOR won - offensive zone. TOR 44 PERREAULT vs DET 19 YZERMAN
68	1 13:12	SHOT	TOR	EV	24 MCCABE, Snap, 56 ft
69	1 13:18	GIVEAWAY	DET	EV	14 SHANAHAN
70	1 13:24	GIVEAWAY	DET	EV	14 SHANAHAN
71	1 13:41	STOPPAGE	N/A		Icing
72	1 13:41	FACE-OFF	N/A		TOR won - offensive zone. TOR 16 TUCKER vs DET 33 DRAPER
73	1 13:48	SHOT	TOR	EV	16 TUCKER, Wrist, 24 ft
74	1 13:58	SHOT	TOR	EV	7 ROBERTS, Wrist, 16 ft
75	1 14:00	STOPPAGE	N/A		Goalie Stopped
76	1 14:00	SHOT	TOR	EV	27 CORSON, Wrap, 5 ft
77	1 14:00	FACE-OFF	N/A		TOR won - offensive zone. TOR 16 TUCKER vs DET 33 DRAPER
78	1 14:08	STOPPAGE	N/A		Goalie Stopped
79	1 14:08	SHOT	TOR	EV	43 DEMPSEY, Wrap, 7 ft
80	1 14:08	FACE-OFF	N/A		TOR won - offensive zone. TOR 9 ANTROPOV vs DET 17 BROWN
81	1 14:31	HIT	DET	EV	27 WARD
82	1 14:43	GIVEAWAY	DET	EV	41 GILCHRIST
83	1 15:10	GOAL	TOR	EV	13 SUNDIN, A: 14 HOGLUND, 36 YUSHKEVICH, Backhand, 11 ft
TOR: 13 SUNDIN, 8 KHRISTICH, 55 MARKOV, 36 YUSHKEVICH, 31 JOSEPH, 14 HOGLUND					
DET: 5 LIDSTROM, 34 LEGACE, 19 YZERMAN, 18 MALTBY, 14 SHANAHAN, 11 DANDENAULT					
84	1 15:10	FACE-OFF	N/A		TOR won - neutral zone. TOR 13 SUNDIN vs DET 19 YZERMAN
85	1 15:15	HIT	DET	EV	18 MALTBY
86	1 15:26	TAKEAWAY	DET	EV	5 LIDSTROM
87	1 15:29	SHOT	DET	EV	19 YZERMAN, Wrist, 50 ft
88	1 15:31	STOPPAGE	N/A		Goalie Stopped
89	1 15:31	FACE-OFF	N/A		DET won - offensive zone. TOR 44 PERREAULT vs DET 91 FEDOROV
90	1 15:39	MISSED SHOT	DET	EV	91 FEDOROV, Wide of Net

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

Play By Play

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

#	Per Time	Event	Team	Type	Description
91	1 15:43	STOPPAGE	N/A		Goalie Stopped
92	1 15:43	SHOT	DET	EV	13 KOZLOV, Slap, 14 ft
93	1 15:43	FACE-OFF	N/A		DET won - offensive zone. TOR 16 TUCKER vs DET 91 FEDOROV
94	1 15:51	BLOCKED SHOT	TOR	EV	16 TUCKER
95	1 16:01	HIT	DET	EV	25 MCCARTY
96	1 16:16	HIT	TOR	EV	16 TUCKER
97	1 16:38	PENALTY	TOR		16 TUCKER, Roughing, 2 min
98	1 16:38	FACE-OFF	N/A		DET won - neutral zone. TOR 13 SUNDIN vs DET 91 FEDOROV
99	1 17:12	MISSED SHOT	DET	PP	14 SHANAHAN, Wide of Net
100	1 17:58	BLOCKED SHOT	TOR	SH	13 SUNDIN
101	1 18:06	PENALTY	DET		96 HOLMSTROM, Unsportsmanlike conduct, 2 min
102	1 18:06	FACE-OFF	N/A		DET won - defensive zone. TOR 22 KOROLEV vs DET 20 LAPOINTE
103	1 18:18	STOPPAGE	N/A		Goalie Stopped
104	1 18:18	FACE-OFF	N/A		DET won - offensive zone. TOR 22 KOROLEV vs DET 20 LAPOINTE
105	1 18:25	HIT	TOR	EV	36 YUSHKEVICH
106	1 18:37	GIVEAWAY	DET	SH	28 DUCHESNE
107	1 18:42	BLOCKED SHOT	DET	SH	11 DANDENAULT
108	1 18:45	BLOCKED SHOT	DET	SH	28 DUCHESNE
109	1 19:33	HIT	DET	SH	5 LIDSTROM
110	1 19:51	PENALTY	TOR		14 HOGLUND, Tripping, 2 min
111	1 19:51	FACE-OFF	N/A		TOR won - defensive zone. TOR 13 SUNDIN vs DET 91 FEDOROV
112	1 19:59	PENALTY	TOR		24 MCCABE, Fighting (maj), 5 min
113	1 19:59	PENALTY	DET		14 SHANAHAN, Fighting (maj), 5 min
114	1 19:59	FACE-OFF	N/A		TOR won - neutral zone. TOR 13 SUNDIN vs DET 19 YZERMAN
115	2 00:00	FACE-OFF	N/A		DET won - neutral zone. TOR 13 SUNDIN vs DET 91 FEDOROV
116	2 00:19	TAKEAWAY	TOR	SH	55 MARKOV
117	2 00:20	HIT	DET	PP	96 HOLMSTROM
118	2 00:24	TAKEAWAY	DET	PP	96 HOLMSTROM
119	2 00:38	SHOT	DET	PP	19 YZERMAN, Wrist, 24 ft
120	2 00:47	STOPPAGE	N/A		Offside
121	2 00:47	FACE-OFF	N/A		DET won - neutral zone. TOR 16 TUCKER vs DET 91 FEDOROV
122	2 01:04	HIT	DET	PP	15 VERBEEK
123	2 01:07	TAKEAWAY	DET	PP	19 YZERMAN
124	2 01:11	GIVEAWAY	DET	PP	19 YZERMAN
125	2 01:44	BLOCKED SHOT	TOR	SH	15 KABERLE
126	2 02:00	SHOT	TOR	EV	14 HOGLUND, Snap, 53 ft
127	2 02:12	MISSED SHOT	TOR	EV	36 YUSHKEVICH, Wide of Net
128	2 02:18	SHOT	DET	EV	13 KOZLOV, Slap, 48 ft
129	2 02:20	STOPPAGE	N/A		Goalie Stopped
130	2 02:20	SHOT	DET	EV	19 YZERMAN, Wrist, 16 ft
131	2 02:20	FACE-OFF	N/A		DET won - offensive zone. TOR 44 PERREAULT vs DET 20 LAPOINTE
132	2 02:40	SHOT	TOR	EV	94 BEREZIN, Wrist, 30 ft
133	2 02:41	MISSED SHOT	TOR	EV	44 PERREAULT, Wide of Net
134	2 02:42	HIT	DET	EV	23 GILL
135	2 02:49	MISSED SHOT	DET	EV	13 KOZLOV, Wide of Net
136	2 02:56	HIT	DET	EV	20 LAPOINTE
137	2 03:07	HIT	TOR	EV	36 YUSHKEVICH

VISITOR



ONTARIO MAPLE LEAFS
Game 28 Away Game 12

Play By Play

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

#	Per Time	Event	Team	Type	Description
138	2 03:19	GIVEAWAY	DET	EV	25 MCCARTY
139	2 03:23	GIVEAWAY	TOR	EV	36 YUSHKEVICH
140	2 03:27	HIT	DET	EV	33 DRAPER
141	2 03:39	MISSED SHOT	DET	EV	33 DRAPER, Wide of Net
142	2 03:58	TAKEAWAY	DET	EV	41 GILCHRIST
143	2 04:00	STOPPAGE	N/A		Offside
144	2 04:00	FACE-OFF	N/A		DET won - neutral zone. TOR 13 SUNDIN vs DET 91 FEDOROV
145	2 04:37	STOPPAGE	N/A		Icing
146	2 04:37	FACE-OFF	N/A		DET won - offensive zone. TOR 16 TUCKER vs DET 19 YZERMAN
147	2 04:43	STOPPAGE	N/A		Offside
148	2 04:43	FACE-OFF	N/A		DET won - defensive zone. TOR 16 TUCKER vs DET 19 YZERMAN
149	2 05:09	HIT	TOR	EV	16 TUCKER
150	2 05:16	HIT	DET	EV	27 WARD
151	2 05:23	HIT	TOR	EV	16 TUCKER
152	2 05:30	TAKEAWAY	TOR	EV	27 CORSON
153	2 05:39	SHOT	DET	EV	33 DRAPER, Snap, 46 ft
154	2 05:47	PENALTY	TOR		27 CORSON, Holding - Obstruction, 2 min
155	2 05:47	FACE-OFF	N/A		TOR won - neutral zone. TOR 22 KOROLEV vs DET 91 FEDOROV
156	2 07:15	GIVEAWAY	DET	PP	34 LEGACE
157	2 07:16	HIT	DET	PP	20 LAPOINTE
158	2 07:32	HIT	DET	PP	20 LAPOINTE
159	2 07:49	TAKEAWAY	TOR	EV	3 MANSON
160	2 07:57	BLOCKED SHOT	DET	EV	20 LAPOINTE
161	2 08:11	SHOT	TOR	EV	43 DEMPSEY, Slap, 57 ft
162	2 08:29	BLOCKED SHOT	DET	EV	28 DUCHESNE
163	2 08:33	STOPPAGE	N/A		Icing
164	2 08:33	FACE-OFF	N/A		DET won - defensive zone. TOR 44 PERREAULT vs DET 91 FEDOROV
165	2 08:56	HIT	DET	EV	11 DANDENAULT
166	2 09:02	BLOCKED SHOT	DET	EV	17 BROWN
167	2 09:04	HIT	TOR	EV	44 PERREAULT
168	2 09:13	PENALTY	DET		27 WARD, Roughing, 2 min
169	2 09:13	FACE-OFF	N/A		TOR won - offensive zone. TOR 13 SUNDIN vs DET 19 YZERMAN
170	2 09:58	TAKEAWAY	DET	SH	11 DANDENAULT
171	2 10:16	BLOCKED SHOT	DET	SH	19 YZERMAN
172	2 10:38	STOPPAGE	N/A		Offside
173	2 10:38	FACE-OFF	N/A		TOR won - neutral zone. TOR 16 TUCKER vs DET 91 FEDOROV
174	2 11:57	MISSED SHOT	DET	EV	41 GILCHRIST, Wide of Net
175	2 12:07	STOPPAGE	N/A		Goalie Stopped
176	2 12:07	MISSED SHOT	DET	EV	17 BROWN, Wide of Net
177	2 12:07	FACE-OFF	N/A		DET won - offensive zone. TOR 9 ANTROPOV vs DET 19 YZERMAN
178	2 12:15	HIT	DET	EV	19 YZERMAN
179	2 12:29	SHOT	DET	EV	14 SHANAHAN, Slap, 60 ft
180	2 12:40	SHOT	DET	EV	20 LAPOINTE, Tip-in, 18 ft
181	2 12:41	HIT	DET	EV	27 WARD
182	2 12:57	STOPPAGE	N/A		Hand Pass
183	2 12:57	FACE-OFF	N/A		TOR won - neutral zone. TOR 44 PERREAULT vs DET 33 DRAPER
184	2 13:33	BLOCKED SHOT	DET	EV	23 GILL

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

Play By Play

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

#	Per Time	Event	Team	Type	Description
185	2 13:52	HIT	DET	EV	23 GILL
186	2 14:14	SHOT	DET	EV	11 DANDENAULT, Slap, 60 ft
187	2 14:33	MISSED SHOT	DET	EV	5 LIDSTROM, Wide of Net
188	2 14:40	BLOCKED SHOT	TOR	EV	14 HOGGLUND
189	2 14:57	GIVEAWAY	DET	EV	91 FEDOROV
190	2 15:16	SHOT	DET	EV	13 KOZLOV, Slap, 33 ft
191	2 15:18	STOPPAGE	N/A		Goalie Stopped
192	2 15:18	FACE-OFF	N/A		TOR won - defensive zone. TOR 16 TUCKER vs DET 17 BROWN
193	2 15:51	STOPPAGE	N/A		Icing
194	2 15:51	FACE-OFF	N/A		TOR won - defensive zone. TOR 16 TUCKER vs DET 19 YZERMAN
195	2 16:05	GIVEAWAY	TOR	EV	15 KABERLE
196	2 16:06	SHOT	DET	EV	14 SHANAHAN, Slap, 44 ft
197	2 16:28	SHOT	DET	EV	5 LIDSTROM, Slap, 54 ft
198	2 16:31	STOPPAGE	N/A		Goalie Stopped
199	2 16:31	FACE-OFF	N/A		DET won - offensive zone. TOR 44 PERREAULT vs DET 91 FEDOROV
200	2 16:36	HIT	TOR	EV	36 YUSHKEVICH
201	2 17:06	HIT	TOR	EV	22 KOROLEV
202	2 17:16	GIVEAWAY	DET	EV	91 FEDOROV
203	2 17:21	SHOT	DET	EV	20 LAPOINTE, Wrist, 21 ft
204	2 17:29	SHOT	DET	EV	20 LAPOINTE, Backhand, 13 ft
205	2 17:38	STOPPAGE	N/A		Puck in Crowd
206	2 17:38	MISSED SHOT	TOR	EV	22 KOROLEV, Hit Crossbar
207	2 17:38	FACE-OFF	N/A		DET won - neutral zone. TOR 13 SUNDIN vs DET 33 DRAPER
208	2 18:10	MISSED SHOT	TOR	EV	14 HOGGLUND, Over Net
209	2 18:28	TAKEAWAY	TOR	EV	3 MANSON
210	2 18:48	HIT	TOR	EV	3 MANSON
211	2 19:25	HIT	DET	EV	27 WARD
212	3 00:00	FACE-OFF	N/A		DET won - neutral zone. TOR 13 SUNDIN vs DET 91 FEDOROV
213	3 00:23	HIT	DET	EV	13 KOZLOV
214	3 00:35	HIT	TOR	EV	36 YUSHKEVICH
215	3 00:52	HIT	DET	EV	20 LAPOINTE
216	3 01:11	HIT	DET	EV	25 MCCARTY
217	3 01:17	STOPPAGE	N/A		Puck in Crowd
218	3 01:17	FACE-OFF	N/A		DET won - neutral zone. TOR 16 TUCKER vs DET 33 DRAPER
219	3 01:30	STOPPAGE	N/A		Goalie Stopped
220	3 01:30	FACE-OFF	N/A		DET won - offensive zone. TOR 16 TUCKER vs DET 19 YZERMAN
221	3 01:34	MISSED SHOT	DET	EV	5 LIDSTROM, Wide of Net
222	3 02:00	STOPPAGE	N/A		Puck Frozen
223	3 02:00	FACE-OFF	N/A		DET won - neutral zone. TOR 44 PERREAULT vs DET 19 YZERMAN
224	3 02:18	GOAL	TOR	EV	44 PERREAULT, A: 3 MANSON, 94 BEREZIN, 43 DEMPSEY, 31 JOSEPH, 22 KOROLEV
					TOR: 44 PERREAULT, 3 MANSON, 94 BEREZIN, 43 DEMPSEY, 31 JOSEPH, 22 KOROLEV
					DET: 5 LIDSTROM, 91 FEDOROV, 34 LEGACE, 19 YZERMAN, 18 MALTBY, 14 SHANAHAN
225	3 02:18	FACE-OFF	N/A		DET won - neutral zone. TOR 44 PERREAULT vs DET 17 BROWN
226	3 02:38	HIT	DET	EV	27 WARD
227	3 02:43	TAKEAWAY	TOR	EV	55 MARKOV
228	3 03:12	HIT	TOR	EV	21 MAIR
229	3 03:42	HIT	DET	EV	41 GILCHRIST

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

Play By Play

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

#	Per	Time	Event	Team	Type	Description
230	3	03:51	GIVEAWAY	DET	EV	41 GILCHRIST
231	3	03:57	HIT	TOR	EV	43 DEMPSEY
232	3	04:03	HIT	DET	EV	41 GILCHRIST
233	3	04:31	SHOT	DET	EV	5 LIDSTROM, Wrist, 53 ft
234	3	05:03	SHOT	TOR	EV	8 KHRISTICH, Slap, 41 ft
235	3	05:05	STOPPAGE	N/A		Goalie Stopped
236	3	05:05	FACE-OFF	N/A		TOR won - offensive zone. TOR 16 TUCKER vs DET 91 FEDOROV
237	3	05:13	SHOT	DET	EV	13 KOZLOV, Slap, 48 ft
238	3	05:18	HIT	DET	EV	20 LAPOINTE
239	3	05:36	SHOT	TOR	EV	7 ROBERTS, Wrist, 10 ft
240	3	05:46	STOPPAGE	N/A		Injury
241	3	05:46	FACE-OFF	N/A		DET won - defensive zone. TOR 44 PERREAULT vs DET 33 DRAPER
242	3	06:01	PENALTY	TOR		44 PERREAULT, Slashing, 2 min
243	3	06:01	HIT	DET	EV	25 MCCARTY
244	3	06:01	FACE-OFF	N/A		TOR won - defensive zone. TOR 13 SUNDIN vs DET 91 FEDOROV
245	3	06:30	GIVEAWAY	DET	PP	19 YZERMAN
246	3	07:22	SHOT	TOR	SH	15 KABERLE, Wrist, 21 ft
247	3	07:36	MISSED SHOT	DET	PP	20 LAPOINTE, Wide of Net
248	3	07:45	GIVEAWAY	DET	PP	28 DUCHESNE
249	3	07:53	HIT	DET	PP	15 VERBEEK
250	3	08:35	SHOT	DET	EV	25 MCCARTY, Snap, 28 ft
251	3	08:44	PENALTY	TOR		28 DOMI, Tripping, 2 min
252	3	08:44	FACE-OFF	N/A		TOR won - defensive zone. TOR 13 SUNDIN vs DET 91 FEDOROV
253	3	09:01	SHOT	DET	PP	5 LIDSTROM, Slap, 57 ft
254	3	09:33	MISSED SHOT	DET	PP	98 HOLMSTROM, Wide of Net
255	3	09:52	GIVEAWAY	DET	PP	19 YZERMAN
256	3	10:07	HIT	DET	PP	20 LAPOINTE
257	3	10:43	SHOT	DET	EV	20 LAPOINTE, Backhand, 12 ft
258	3	10:50	MISSED SHOT	DET	EV	28 DUCHESNE, Wide of Net
259	3	10:55	SHOT	DET	EV	17 BROWN, Wrist, 31 ft
260	3	11:14	TAKEAWAY	DET	EV	28 DUCHESNE
261	3	11:36	SHOT	TOR	EV	43 DEMPSEY, Wrist, 49 ft
262	3	12:19	STOPPAGE	N/A		Icing
263	3	12:19	FACE-OFF	N/A		DET won - offensive zone. TOR 44 PERREAULT vs DET 19 YZERMAN
264	3	12:28	MISSED SHOT	DET	EV	14 SHANAHAN, Wide of Net
265	3	12:35	HIT	TOR	EV	21 MAIR
266	3	12:47	GIVEAWAY	TOR	EV	55 MARKOV
267	3	12:55	TAKEAWAY	DET	EV	11 DANDENAULT
268	3	13:05	STOPPAGE	N/A		Icing
269	3	13:05	FACE-OFF	N/A		DET won - defensive zone. TOR 16 TUCKER vs DET 91 FEDOROV
270	3	13:14	STOPPAGE	N/A		Offside
271	3	13:14	FACE-OFF	N/A		TOR won - neutral zone. TOR 16 TUCKER vs DET 91 FEDOROV
272	3	14:06	STOPPAGE	N/A		Offside
273	3	14:06	FACE-OFF	N/A		TOR won - neutral zone. TOR 13 SUNDIN vs DET 17 BROWN
274	3	14:32	HIT	TOR	EV	3 MANSON
275	3	14:47	TAKEAWAY	DET	EV	11 DANDENAULT
276	3	14:57	GIVEAWAY	TOR	EV	31 JOSEPH

VISITOR



TORONTO MAPLE LEAFS
Game 28 Away Game 12

Play By Play

Game 0405
Wednesday, December 6, 2000
7:39 PM ET at Joe Louis Arena
Attendance 19,995
Final

HOME



DETROIT RED WINGS
Game 29 Home Game 15

#	Per Time	Event	Team	Type	Description
277	3 15:11	HIT	DET	EV	55 MURPHY
278	3 15:23	HIT	DET	EV	98 HOLMSTROM
279	3 15:32	HIT	TOR	EV	36 YUSHKEVICH
280	3 15:44	BLOCKED SHOT	TOR	EV	36 YUSHKEVICH
281	3 15:52	BLOCKED SHOT	TOR	EV	44 PERREAULT
282	3 15:53	HIT	TOR	EV	55 MARKOV
283	3 16:04	GIVEAWAY	DET	EV	33 DRAPER
284	3 16:34	SHOT	DET	EV	18 MALTBY, Wrist, 27 ft
285	3 16:55	STOPPAGE	N/A		Icing
286	3 16:55	FACE-OFF	N/A		DET won - offensive zone. TOR 13 SUNDIN vs DET 91 FEDOROV
287	3 17:08	SHOT	TOR	EV	13 SUNDIN, Wrist, 19 ft
288	3 17:31	GIVEAWAY	DET	EV	27 WARD
289	3 17:32	SHOT	TOR	EV	94 BEREZIN, Slap, 37 ft
290	3 17:33	STOPPAGE	N/A		Goalie Stopped
291	3 17:33	FACE-OFF	N/A		TOR won - offensive zone. TOR 44 PERREAULT vs DET 17 BROWN
292	3 17:38	MISSED SHOT	TOR	EV	3 MANSON, Wide of Net
293	3 17:52	GIVEAWAY	DET	EV	23 GILL
294	3 18:09	BLOCKED SHOT	DET	EV	28 DUCHESNE
295	3 18:23	HIT	TOR	EV	43 DEMPSEY
296	3 18:28	SHOT	DET	EV	25 MCCARTY, Tip-In, 10 ft
297	3 18:39	MISSED SHOT	DET	EV	33 DRAPER, Wide of Net
298	3 18:51	STOPPAGE	N/A		Goalie Stopped
299	3 18:51	FACE-OFF	N/A		TOR won - defensive zone. TOR 16 TUCKER vs DET 19 YZERMAN

APPENDIX M

Modified Delphi Round Two

Instructions for Section A

In Section A of the second round of questioning you are asked to rate the variables that you evaluated in the previous survey against one another in order to establish a relative value for each variable.

Similar to the way in which Section B of Round 1 was completed, you have been allocated **100 importance points** which are to be used to indicate the relative importance of the variables listed in each question. This section requires you to *distribute these 100 points amongst the listed variables* based on the relative importance they should have in determining the salary of an NHL forward.

Please note that the grand total of all points allocated must equal 100 points!

The following is a Sample of the type of question that you are required to complete in Section A with the numbers already entered into the point column. In the actual survey, the rationales will be based on the comments and feedback that were provided by yourself and the other experts participating in the study. I would encourage you to consider the rationales provided in assigning the importance points to each variable. Should you wish to add an additional rationale for others to consider in the following round of questioning, please do so by writing it in the space provided.

SAMPLE QUESTION 1:

1. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *variables* based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Variable:	Rationale:	# of Points Allocated
a) Variable 1	<ul style="list-style-type: none"> Fans want to see this Management wants to see this Other: _____ 	_____
b) Variable 2	<ul style="list-style-type: none"> Fans don't like this Management likes this Other: _____ 	_____
c) Variable 3	<ul style="list-style-type: none"> Under-appreciated by the media Only the fans care about this Other: _____ 	_____
d) Variable 4	<ul style="list-style-type: none"> Not in the best interests of the game Fans will pay a premium to see this! Other: _____ 	_____
e) Variable 5	<ul style="list-style-type: none"> A necessary evil in the sport Does not promote a positive image for the game Other: _____ 	_____
TOTAL POINTS =		100

SECTION A

1. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *offensive performance* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Offensive Performance Variable:	Rationale:	# of Points Allocated
a) Goals	<ul style="list-style-type: none"> • People pay to watch goals • Goals are only a part of a player's performance • Highest goal and assist totals make the most money • Good scorers are hard to find • Should differentiate between wingers and centres • Other: _____ 	_____
b) Assists	<ul style="list-style-type: none"> • People pay to watch goals • Being able to finish depends on what is passed to you • You need someone to get the puck to the scorer • Lots of assists can be cheap variety • Other: _____ 	_____
c) Points	<ul style="list-style-type: none"> • Getting harder and harder to get • One of the most important statistics • You need people to produce to win • Other: _____ 	_____
d) Points Per Game	<ul style="list-style-type: none"> • Consistency and durability • Winning is most important, points do not guarantee success • Points in every game are actually more important • You need people to produce to win • Other: _____ 	_____
e) Shots on Goal	<ul style="list-style-type: none"> • Usually leads to points or goals • Top scorers and money makers usually are the shots on goal leaders • It's how many goals that matter • Other: _____ 	_____
f) Shooting Percentage	<ul style="list-style-type: none"> • Nobody cares • Only results matter • Other: _____ 	_____
g) Total Face-offs Taken	<ul style="list-style-type: none"> • Sign of responsibility • Important, but points are more important • Do not know why this even matters • Only if centre • Other: _____ 	_____
h) Face-off Winning Percentage	<ul style="list-style-type: none"> • A Unique valuable talent • Not everybody is a centreman • A bonus if a top scorer is also a winning face-off man • Helps to control puck but not big factor in contracts • Other: _____ 	_____
TOTAL POINTS =		100

2. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *defensive performance* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Defensive Performance Variable:	Rationale:	# of Points Allocated
a) Plus / Minus	<ul style="list-style-type: none"> • At times depends on opposition • Depends on ice time and position • Not crucial for a top scorer but important to a top defensive forward • Can be very misleading - who is responsible? • Other: _____ 	_____
b) Total number of Takeaways	<ul style="list-style-type: none"> • Important to penalty killers • Helps determine the quality of checking • Other: _____ 	_____
c) Total number of Giveaways	<ul style="list-style-type: none"> • Important for defensemen • Hope to correct these mistakes • Other: _____ 	_____
d) Total number of Shots Blocked	<ul style="list-style-type: none"> • Shows desire and skill • Means the player has the team at heart • Determines style of play • Other: _____ 	_____
e) Frank J. Selke Trophy voting	<ul style="list-style-type: none"> • An important role on any team • Public relations contest • A player must have no less than 70pts to be considered for this, otherwise it's useless • Every award should be considered • Top scorer makes \$10 million, Selke makes 1/3 of that - goals and points are most important • Player can be used in all tough defensive situations • Other: _____ 	_____
TOTAL POINTS =		100

3. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *leadership* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Leadership Variable:	Rationale:	# of Points Allocated
a) Captaincy	<ul style="list-style-type: none"> • A recognition of leadership • A lot of times your leaders may not be your captain • The captain is not always the best player • Being a captain is an honour, money is not an issue for a captain at contract time • Leadership qualities, usually one of your better players • Other: _____ 	_____
b) Experience (Career Years)	<ul style="list-style-type: none"> • Less important in a 30-team league • Experience should be somewhat remunerated • If still producing, a veteran will be paid more in every contract signed because of his experience • Quality more than quantity • Other: _____ 	_____
c) Experience (Career Games)	<ul style="list-style-type: none"> • Less important in a 30-team league • Experience should be somewhat remunerated • Only if the player is still productive • Quality more than quantity • Other: _____ 	_____
d) Experience (Games Played)	<ul style="list-style-type: none"> • Durability • Durability in each season is important, 75-82 games played will help the contract along with productivity • Shows relative value to team unless injuries are the cause • Other: _____ 	_____
e) Experience (Ice Time)	<ul style="list-style-type: none"> • Important to team • Ice time is really important in telling the importance of a player to his team • More ice time leads to more scoring chances, top scorers get the most ice time • Shows value to team • Other: _____ 	_____
f) Lady Byng Memorial Trophy voting	<ul style="list-style-type: none"> • Doesn't translate into dollars • Publicity contest??? • One of the least important awards • Bonuses are usually given for a league trophy, a slight increase in salary is sometimes given • Playing ability is determining factor • Other: _____ 	_____
g) Bill Masterton Memorial Trophy voting	<ul style="list-style-type: none"> • Least valuable in terms of dollars • Every player is dedicated • One of the least important awards • An honour, but only a token increase in salary if the contract is being negotiated • Usually a character player • Other: _____ 	_____
h) King Clancy Memorial Trophy winner	<ul style="list-style-type: none"> • Leadership on ice important • Again, a publicity contest by media • Always good for the team's image • Leadership is important and along with a lot of goals and points will give a man a good contract • Production is the important factor, you hope to have good people • Other: _____ 	_____
TOTAL POINTS =		100

4. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *robustness* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Robustness Variable:	Rationale:	# of Points Allocated
a) Penalties in Minutes	<ul style="list-style-type: none"> • Important for enforcers • High penalty minutes are seldom accumulated by top scorers • Types of penalties? • Other: _____ 	_____
b) Number of Major Penalties	<ul style="list-style-type: none"> • Important for enforcers • High number of major penalties are seldom accumulated by top scorers • Not how many, it is how effective? • Other: _____ 	_____
c) Number of Minor Penalties	<ul style="list-style-type: none"> • Important for enforcers • High number of minor penalties are seldom accumulated by top scorers • Type? • Other: _____ 	_____
d) Number of Fighting Penalties	<ul style="list-style-type: none"> • Important for certain players • High number of fighting penalties are seldom accumulated by top scorers • Not how many, but how effective • Other: _____ 	_____
e) Number of Roughing Penalties	<ul style="list-style-type: none"> • Important for tough guys • High number of roughing penalties are seldom accumulated by top scorers • Who cares? • Other: _____ 	_____
f) Hits	<ul style="list-style-type: none"> • Shows aggression • A bonus if they do it but scorers usually are avoiding hits to get goals • Style of play • Other: _____ 	_____
TOTAL POINTS =		100

5. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *fan appeal* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Fan Appeal Variable:	Rationale:	# of Points Allocated
a) All-Star Game Fan Balloting	<ul style="list-style-type: none"> • A popularity contest • Fan appeal sells tickets • A popularity contest, the players could select the best performers and that could mean something at contract time • Only if you have bonuses in contract for making this team - a popularity contest! • Other: _____ 	_____
b) Total Number of Career All-Star Game Starting Line-ups	<ul style="list-style-type: none"> • Management ignores • Some "automatic picks" are over the hill, should only be picked if still productive • If on these teams you are probably a good player • Other: _____ 	_____
TOTAL POINTS =		100

6. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *rookie* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Rookie Variable:	Rationale:	# of Points Allocated
a) Draft Selection	<ul style="list-style-type: none"> • Top 5 guaranteed rookie cap • 1st pick can make over \$1 million in his 1st contract, 9th rounder gets two-way contract with a maximum of \$350,000 <i>if</i> he makes the NHL • Caps are set for rookie contracts - player has to improve or draft rank means nothing • Other: _____ 	_____
b) NHL Rookie of the Month selections	<ul style="list-style-type: none"> • Shows rookie belongs • Shows that a youngster is productive and able to play in the NHL • More awards means you are a better player • Other: _____ 	_____
c) NHL All-Rookie Team balloting	<ul style="list-style-type: none"> • A select few • Again, a publicity contest • Shows that a youngster is productive and able to play in the NHL • Contract bonus • Other: _____ 	_____
d) NHL Central Scouting Bureau Rating	<ul style="list-style-type: none"> • Top 5 get drafted high • CSB is usually very close in their ratings to how the players are picked, 1st rounders make the most money • Doesn't matter! • Other: _____ 	_____
e) Calder Memorial Trophy voting	<ul style="list-style-type: none"> • Cash in baby! • Usually a huge bonus and maybe a revised contract • If a bonus is in the contract • Other: _____ 	_____
TOTAL POINTS =		100

7. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *superstar* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Superstar Variable:	Rationale:	# of Points Allocated
a) All-star team balloting	<ul style="list-style-type: none"> Being recognized pays well Sometimes misleading, occasionally players on non-playoff teams are passed over even if they have had better seasons than the selected all-stars No different from other voting, who votes does not matter, only better players on team Other: _____ 	_____
b) Bud Light NHL All-Star Game MVP Award Selection	<ul style="list-style-type: none"> A shinny game A "no-touch" shinny game! Who cares, not a real game! Other: _____ 	_____
c) NHL Player of the Week selections	<ul style="list-style-type: none"> 3 or 4 games is not much Contracts are based on yearly production, not on a weekly basis, it shows the GM that his player was good for a week If you win it every week you are probably a good player Other: _____ 	_____
d) NHL Player of the Month selections	<ul style="list-style-type: none"> A 15 game stretch is good Contracts are based on yearly production, not on a monthly basis, it shows the GM that his player was good for a month Could be only good month of his career Other: _____ 	_____
e) Game Star Points	<ul style="list-style-type: none"> Shows importance to individual team Good productive players are supposed to star, if a low-medium paid player is an often picked star he would have an argument at signing time Again, only if you have a bonus as best players get most stars Other: _____ 	_____
f) Hart Memorial Trophy Voting	<ul style="list-style-type: none"> Iginla from \$1.7 million to \$7.1 million An honour and the winner is and should be highly rewarded Obvious! Other: _____ 	_____
g) Conn Smythe Trophy voting	<ul style="list-style-type: none"> History of past winners An honour, but is only reflective of 1 ½ months work, where the Hart is for 7 months Sometimes people get hot for playoffs Other: _____ 	_____
h) Lester B. Pearson Award voting	<ul style="list-style-type: none"> Visually coincides with the Hart Memorial Trophy To be selected by your peers would be a great honour, it could mean a great deal in contract negotiations Top players get the money Other: _____ 	_____
TOTAL POINTS =		100

8. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *types of goals* based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Types of Goals:	Rationale:	# of Points Allocated
a) Even-strength goals	<ul style="list-style-type: none"> Goals pay Most difficult to be a plus when playing 5 on 5, GM's and coaches must watch this closely Other: _____ 	_____
b) Power-play goals	<ul style="list-style-type: none"> A specialty A goal a game on a power-play can win or tie a lot of games, best scorers always on power-play Other: _____ 	_____
c) Short-handed goals	<ul style="list-style-type: none"> Paid for penalty-killing, goals are a bonus Rare, but many top scorers kill penalties and score if the power-play gets careless Quality of penalty-killing Other: _____ 	_____
d) Game-winning goals	<ul style="list-style-type: none"> Sign of a clutch player Always important but unless you get 10 in a season, scoring winning goals is expected Timing of goals Other: _____ 	_____
e) Game-tying goals	<ul style="list-style-type: none"> Sign of a clutch player Always important but unless you get 10 in a season, scoring tying goals is expected Timing of goals Other: _____ 	_____
f) Clutch goals	<ul style="list-style-type: none"> Most people who score overtime or clutch goals are not the top scorers on the team because these players are checked so closely in these situations How many goals, not when Other: _____ 	_____
g) Blowout goals	<ul style="list-style-type: none"> Goal scorers pile up totals That was 80's and early 90's hockey, not many blowouts today How many goals, not when Other: _____ 	_____
h) Penalty-shot goals	<ul style="list-style-type: none"> How many get the chance? Don't see many of them so hard to rate Goalies have the advantage, some top scorers never have one May never have the chance Other: _____ 	_____
TOTAL POINTS =		100

9. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *types of assists* based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Types of Assists:	Rationale:	# of Points Allocated
a) Even-strength assists	<ul style="list-style-type: none"> Points are important anytime Most difficult to be a plus when playing 5 on 5, GM's and coaches must watch this closely Other: _____ 	_____
b) Power-play assists	<ul style="list-style-type: none"> Key for defensemen Assisting on a goal per game on a power-play can win or tie a lot of games, best scorers always on power-play Other: _____ 	_____
c) Short-handed assists	<ul style="list-style-type: none"> Kill off power-play, points are a bonus Rare, but many top scorers kill penalties and assist on goals if the power-play gets careless Quality of penalty-killing Other: _____ 	_____
d) Clutch assists	<ul style="list-style-type: none"> On ice at key times Most people who assist on overtime or clutch goals are no the top scorers on the team because these players are checked so closely in these situations Goes to time when player is on the ice Other: _____ 	_____
e) Blowout assists	<ul style="list-style-type: none"> Points count anytime That was 80's and early 90's, not many blowouts today How many assists, not when Other: _____ 	_____
TOTAL POINTS =		100



Instructions for Section B

The instructions for Section B are similar to Section A with the exception of the fact that I have provided you with the average score for the responses that were provided in the first round of questioning. Based on the average score that was carried over from the previous round of questioning, and the explanation for each salary factor, please re-consider your original point distribution by entering the number of importance points that you would assign to each factor based on the relative importance they should have in determining the salary of an NHL forward.

As is the case with Section A, please double-check to ensure that your point total in Section B equals 100!!! Upon entering this new number, I would also ask that you please enter a rationale for the number of importance points that you have assigned to each salary factor in the space provided.

SECTION B

1. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *salary factors* based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Salary Factor:	Salary Variables	Average Score from Previous Round	# of Points Allocated
	Rationale:		
a) Offensive Performance	<ul style="list-style-type: none"> Includes such variables as: goals, assists, points, points per game, shots on goal, shooting percentage, total face-offs, and face-off winning percentage. 	Average = 37.1	_____
	<ul style="list-style-type: none"> Rationale: _____ 		
b) Defensive Performance	<ul style="list-style-type: none"> Includes such variables as: plus / minus rating, total number of takeaways, total number of giveaways, total number of shots blocked, and Frank J. Selke Trophy voting. 	Average = 20.0	_____
	<ul style="list-style-type: none"> Rationale: _____ 		
c) Leadership	<ul style="list-style-type: none"> Includes such variables as: captaincy, experience (career years), experience (career games), experience (games played) experience (ice time), Lady Byng Memorial Trophy voting, Bill Masterton Memorial Trophy voting, and King Clancy Memorial Trophy voting. 	Average = 14.1	_____
	<ul style="list-style-type: none"> Rationale: _____ 		
d) Robustness	<ul style="list-style-type: none"> Includes such variables as: penalties in minutes, number of majors, number of minors, number of fighting penalties, number of roughing penalties, and hits. 	Average = 5.9	_____
	<ul style="list-style-type: none"> Rationale: _____ 		
e) Fan Appeal	<ul style="list-style-type: none"> Includes such variables as: All-Star Game fan balloting, and number of career All-Star Game Starting Line-ups. 	Average = 3.9	_____
	<ul style="list-style-type: none"> Rationale: _____ 		
f) Rookie	<ul style="list-style-type: none"> Includes such variables as: draft selection, NHL Rookie of the Month selections, NHL All-Rookie Team balloting, NHL Central Scouting Bureau rating, and Calder Memorial Trophy voting. 	Average = 4.7	_____
	<ul style="list-style-type: none"> Rationale: _____ 		
g) Superstar	<ul style="list-style-type: none"> Includes such variables as: All-Star team balloting, Bud Light NHL All-Star Game MVP Award selection, NHL Player of the Week selections, NHL Player of the Month selections, Game Star Points, Hart Memorial Trophy voting, Conn Smythe Trophy voting, and Lester B. Pearson Award voting. 	Average = 13.6	_____
	<ul style="list-style-type: none"> Rationale: _____ 		
228 TOTAL POINTS =			100

APPENDIX N

Modified Delphi Round Three

Instructions for Section A & B

In both Sections A and B of the Third Round of questioning you are asked to rate the variables that you evaluated in the previous rounds against one another in order to establish a relative value for each variable. Similar to the questions that you encountered in Section B of Round Two, I have provided you with the average score for the responses that were provided in the previous round of questioning for each variable or factor. Based on the average score that was carried over, and the rationales provided for each variable or factor, you are asked to *please re-consider your previous point distributions by entering the number of importance points that you would assign to each variable or factor based on the relative importance they should have in determining the salary of an NHL forward.*

In Round Three, *it is absolutely critical that you double-check to ensure that your point total for each question equals 100!!!* Should you happen to have any additional comments that you would like to share in justifying your point distribution for the listed variables or factors, please indicate these in the space provided.

The following is a sample of the type of questions that you will be required to complete in Round Three with the numbers already noted in the point column. In the sample question provided below, the variables are hypothetical as are the rationales that accompany them. In the actual survey, the rationales will be based on the comments and feedback that were provided by yourself and the other experts participating in the study.

*I would **strongly** encourage you to consider the rationales and average scores from the previous round in assigning the importance points to each variable!*

SAMPLE QUESTION 1:

1. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *variables* based on the importance they should have in determining the salary of an NHL forward.

*Remember that the grand total of all points allocated **must** equal 100 points!*

Variable:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) Variable 1	<ul style="list-style-type: none"> • Fans want to see this • Management wants to see this • Other: _____ 	Average = 36.5	_____
b) Variable 2	<ul style="list-style-type: none"> • Fans don't like this • Management likes this • Other: _____ 	Average = 19.8	_____
c) Variable 3	<ul style="list-style-type: none"> • Under-appreciated by the media • Only the fans care about this • Other: _____ 	Average = 21.4	_____
d) Variable 4	<ul style="list-style-type: none"> • Not in the best interests of the game • Fans will pay a premium to see this! • Other: _____ 	Average = 14.1	_____
e) Variable 5	<ul style="list-style-type: none"> • A necessary evil in the sport • Does not promote a positive image for the game • Other: _____ 	Average = 8.2	_____
TOTAL POINTS =		100	100

SECTION A

1. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *offensive performance* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Offensive Performance Variable:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) Goals	<ul style="list-style-type: none"> • Being able to finish plays consistently is a knack • People pay to watch goals • Goals are only a part of a player's performance • Highest goal and assist totals make the most money • Good scorers are hard to find • Should differentiate between wingers and centres • Other: _____ 	Average = 34.3	_____
b) Assists	<ul style="list-style-type: none"> • The playmaker is the setup guy, no setup - no goals • People pay to watch goals • Being able to finish depends on what is passed to you • You need someone to get the puck to the scorer • Lots of assists can be cheap variety • Other: _____ 	Average = 18.4	_____
c) Points	<ul style="list-style-type: none"> • If you are good in a) or b) this follows • The combination of both contributes to success of line and team • Getting harder and harder to get • One of the most important statistics • You need people to produce to win • Other: _____ 	Average = 14.0	_____
d) Points Per Game	<ul style="list-style-type: none"> • A product of a) and b) • Consistency and durability • Winning is most important, points do not guarantee success • Points in every game are actually more important • You need people to produce to win • Other: _____ 	Average = 15.0	_____
e) Shots on Goal	<ul style="list-style-type: none"> • Usually leads to points or goals • Top scorers and money makers usually are the shots on goal leaders • It's how many goals that matter • Other: _____ 	Average = 4.7	_____
f) Shooting Percentage	<ul style="list-style-type: none"> • Nobody cares • Only results matter • Other: _____ 	Average = 2.0	_____
g) Total Face-offs Taken	<ul style="list-style-type: none"> • Sign of responsibility • Important, but points are more important • Do not know why this even matters • Only if centre • Other: _____ 	Average = 5.0	_____

h) Face-off Winning Percentage	<ul style="list-style-type: none"> A plus in a talented player, can be more important for defensive play A Unique valuable talent Not everybody is a centreman A bonus if a top scorer is also a winning face-off man Helps to control puck but not big factor in contracts Other: _____ 	Average = 6.6	_____
TOTAL POINTS =		100	100

2. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *defensive performance* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Defensive Performance Variable:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) Plus / Minus	<ul style="list-style-type: none"> At times depends on opposition Depends on ice time and position Not crucial for a top scorer but important to a top defensive forward Can be very misleading - who is responsible? Other: _____ 	Average = 21.4	_____
b) Total number of Takeaways	<ul style="list-style-type: none"> Important to penalty killers Helps determine the quality of checking Other: _____ 	Average = 15.7	_____
c) Total number of Giveaways	<ul style="list-style-type: none"> Important for defensemen Hope to correct these mistakes Other: _____ 	Average = 17.9	_____
d) Total number of Shots Blocked	<ul style="list-style-type: none"> Blocking shots should not be your first priority, eliminating opportunities for shots is! Shows desire and skill Means the player has the team at heart Determines style of play Other: _____ 	Average = 20.0	_____
e) Frank J. Selke Trophy voting	<ul style="list-style-type: none"> An important role on any team Public relations contest A player must have no less than 70pts to be considered for this, otherwise it's useless Every award should be considered Top scorer makes \$10 million, Selke makes 1/3 of that - goals and points are most important Player can be used in all tough defensive situations Other: _____ 	Average = 25.0	_____
TOTAL POINTS =		100	100

3. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *leadership* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Leadership Variable:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) Captaincy	<ul style="list-style-type: none"> • A recognition of leadership • A lot of times your leaders may not be your captain • The captain is not always the best player • Being a captain is an honour, money is not an issue for a captain at contract time • Leadership qualities, usually one of your better players • Other: _____ 	Average = 17.1	_____
b) Experience (Career Years)	<ul style="list-style-type: none"> • Less important in a 30-team league • Experience should be somewhat remunerated • If still producing, a veteran will be paid more in every contract signed because of his experience • Quality more than quantity • Other: _____ 	Average = 14.3	_____
c) Experience (Career Games)	<ul style="list-style-type: none"> • Less important in a 30-team league • Experience should be somewhat remunerated • Only if the player is still productive • Quality more than quantity • Other: _____ 	Average = 15.0	_____
d) Experience (Games Played)	<ul style="list-style-type: none"> • Durability • Durability in each season is important, 75-82 games played will help the contract along with productivity • Shows relative value to team unless injuries are the cause • Other: _____ 	Average = 17.9	_____
e) Experience (Ice Time)	<ul style="list-style-type: none"> • Important to team • Ice time is really important in telling the importance of a player to his team • More ice time leads to more scoring chances, top scorers get the most ice time • Shows value to team • Other: _____ 	Average = 22.9	_____
f) Lady Byng Memorial Trophy voting	<ul style="list-style-type: none"> • Doesn't translate into dollars • Publicity contest??? • One of the least important awards • Bonuses are usually given for a league trophy, a slight increase in salary is sometimes given • Playing ability is determining factor • Other: _____ 	Average = 5.7	_____
g) Bill Masterton Memorial Trophy voting	<ul style="list-style-type: none"> • Least valuable in terms of dollars • Every player is dedicated • One of the least important awards • An honour, but only a token increase in salary if the contract is being negotiated • Usually a character player • Other: _____ 	Average = 2.1	_____

h) King Clancy Memorial Trophy winner	<ul style="list-style-type: none"> Leadership on ice important Again, a publicity contest by media Always good for the team's image Leadership is important and along with a lot of goals and points will give a man a good contract Production is the important factor, you hope to have good people Other: _____ 	Average = 5.0	_____
TOTAL POINTS =		100	100

4. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *robustness* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Robustness Variable:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) Penalties in Minutes	<ul style="list-style-type: none"> Unnecessary Important for enforcers High penalty minutes are seldom accumulated by top scorers Types of penalties? Other: _____ 	Average = 13.3	_____
b) Number of Major Penalties	<ul style="list-style-type: none"> Unnecessary Important for enforcers High number of major penalties are seldom accumulated by top scorers Not how many, it is how effective? Other: _____ 	Average = 12.5	_____
c) Number of Minor Penalties	<ul style="list-style-type: none"> Unnecessary Important for enforcers High number of minor penalties are seldom accumulated by top scorers Type? Other: _____ 	Average = 11.7	_____
d) Number of Fighting Penalties	<ul style="list-style-type: none"> If this is the player's role Unnecessary Important for certain players High number of fighting penalties are seldom accumulated by top scorers Not how many, but how effective Other: _____ 	Average = 18.3	_____
e) Number of Roughing Penalties	<ul style="list-style-type: none"> Shows style of play Unnecessary Important for tough guys High number of roughing penalties are seldom accumulated by top scorers Who cares? Other: _____ 	Average = 14.2	_____
f) Hits	<ul style="list-style-type: none"> Shows style of play Shows aggression A bonus if they do it but scorers usually are avoiding hits to get goals Style of play 234 Other: _____ 	Average = 30.0	_____
TOTAL POINTS =		100	100

5. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *fan appeal* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Fan Appeal Variable:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) All-Star Game Fan Balloting	<ul style="list-style-type: none"> A popularity contest Fan appeal sells tickets A popularity contest, the players could select the best performers and that could mean something at contract time Only if you have bonuses in contract for making this team - a popularity contest! Other: _____ 	Average = 40.7	_____
b) Total Number of Career All-Star Game Starting Line-ups	<ul style="list-style-type: none"> Management ignores Some "automatic picks" are over the hill, should only be picked if still productive If on these teams you are probably a good player Other: _____ 	Average = 59.3	_____
TOTAL POINTS =		100	100

6. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *rookie* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Rookie Variable:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) Draft Selection	<ul style="list-style-type: none"> A one-time thing Top 5 guaranteed rookie cap 1st pick can make over \$1 million in his 1st contract, 9th rounder gets two-way contract with a maximum of \$350,000 if he makes the NHL Caps are set for rookie contracts - player has to improve or draft rank means nothing Other: _____ 	Average = 25.7	_____
b) NHL Rookie of the Month selections	<ul style="list-style-type: none"> Shows rookie belongs Shows that a youngster is productive and able to play in the NHL More awards means you are a better player Other: _____ 	Average = 17.1	_____
c) NHL All-Rookie Team balloting	<ul style="list-style-type: none"> A select few Again, a publicity contest Shows that a youngster is productive and able to play in the NHL Contract bonus Other: _____ 	Average = 14.3	_____
d) NHL Central Scouting Bureau Rating	<ul style="list-style-type: none"> Top 5 get drafted high CSB is usually very close in their ratings to how the players are picked, 1st rounders make the most money Doesn't matter! Other: _____ 	Average = 10.0	_____
e) Calder Memorial Trophy voting	<ul style="list-style-type: none"> Cash in baby! Usually a huge bonus and maybe a revised contract If a bonus is in the contract 235 Other: _____ 	Average = 32.9	_____
TOTAL POINTS =		100	100

7. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *superstar* variables based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Superstar Variable:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) All-star team balloting	<ul style="list-style-type: none"> Fans vote Being recognized pays well Sometimes misleading, occasionally players on non-playoff teams are passed over even if they have had better seasons than the selected all-stars No different from other voting, who votes does not matter, only better players on team Other: _____ 	Average = 9.3	_____
b) Bud Light NHL All-Star Game MVP Award Selection	<ul style="list-style-type: none"> A shinny game A "no-touch" shinny game! Who cares, not a real game! Other: _____ 	Average = 4.3	_____
c) NHL Player of the Week selections	<ul style="list-style-type: none"> 3 or 4 games is not much Contracts are based on yearly production, not on a weekly basis, it shows the GM that his player was good for a week If you win it every week you are probably a good player Other: _____ 	Average = 10.0	_____
d) NHL Player of the Month selections	<ul style="list-style-type: none"> A 15 game stretch is good Contracts are based on yearly production, not on a monthly basis, it shows the GM that his player was good for a month Could be only good month of his career Other: _____ 	Average = 10.7	_____
e) Game Star Points	<ul style="list-style-type: none"> Shows importance to individual team Good productive players are supposed to star, if a low-medium paid player is an often picked star he would have an argument at signing time Again, only if you have a bonus as best players get most stars Other: _____ 	Average = 6.4	_____
f) Hart Memorial Trophy Voting	<ul style="list-style-type: none"> I don't always trust their selections as they may be biased! Iginla from \$1.7 million to \$7.1 million An honour and the winner is and should be highly rewarded Obvious! Other: _____ 	Average = 32.9	_____
g) Conn Smythe Trophy voting	<ul style="list-style-type: none"> History of past winners An honour, but is only reflective of 1 ½ months work, where the Hart is for 7 months Sometimes people get hot for playoffs Other: _____ 	Average = 13.6	_____
h) Lester B. Pearson Award voting	<ul style="list-style-type: none"> Visually coincides with the Hart Memorial Trophy To be selected by your peers would be a great honour, it could mean a great deal in contract negotiations Top players get the money 236 Other: _____ 	Average = 12.9	_____
TOTAL POINTS =		100	100

8. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *types of goals* based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Types of Goals:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) Even-strength goals	<ul style="list-style-type: none"> Goals pay Most difficult to be a plus when playing 5 on 5, GM's and coaches must watch this closely Other: _____ 	Average = 27.1	_____
b) Power-play goals	<ul style="list-style-type: none"> Lots of games decided on special teams A specialty A goal a game on a power-play can win or tie a lot of games, best scorers always on power-play Other: _____ 	Average = 18.6	_____
c) Short-handed goals	<ul style="list-style-type: none"> Paid for penalty-killing, goals are a bonus Rare, but many top scorers kill penalties and score if the power-play gets careless Quality of penalty-killing Other: _____ 	Average = 11.4	_____
d) Game-winning goals	<ul style="list-style-type: none"> Sign of a clutch player Always important but unless you get 10 in a season, scoring winning goals is expected Timing of goals Other: _____ 	Average = 15.7	_____
e) Game-tying goals	<ul style="list-style-type: none"> Sign of a clutch player Always important but unless you get 10 in a season, scoring tying goals is expected Timing of goals Other: _____ 	Average = 7.9	_____
f) Clutch goals	<ul style="list-style-type: none"> Most people who score overtime or clutch goals are not the top scorers on the team because these players are checked so closely in these situations How many goals, not when Other: _____ 	Average = 14.3	_____
g) Blowout goals	<ul style="list-style-type: none"> Goal scorers pile up totals That was 80's and early 90's hockey, not many blowouts today How many goals, not when Other: _____ 	Average = 2.9	_____
h) Penalty-shot goals	<ul style="list-style-type: none"> How many get the chance? Don't see many of them so hard to rate Goalies have the advantage, some top scorers never have one May never have the chance Other: _____ 	Average = 2.1	_____
TOTAL POINTS =		100	100

9. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *types of assists* based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Types of Assists:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) Even-strength assists	<ul style="list-style-type: none"> Points are important anytime Most difficult to be a plus when playing 5 on 5, GM's and coaches must watch this closely Other: _____ 	Average = 26.4	_____
b) Power-play assists	<ul style="list-style-type: none"> Key for defensemen Assisting on a goal per game on a power-play can win or tie a lot of games, best scorers always on power-play Other: _____ 	Average = 25.0	_____
c) Short-handed assists	<ul style="list-style-type: none"> Kill off power-play, points are a bonus Rare, but many top scorers kill penalties and assist on goals if the power-play gets careless Quality of penalty-killing Other: _____ 	Average = 17.1	_____
d) Clutch assists	<ul style="list-style-type: none"> On ice at key times Most people who assist on overtime or clutch goals are no the top scorers on the team because these players are checked so closely in these situations Goes to time when player is on the ice Other: _____ 	Average = 22.6	_____
e) Blowout assists	<ul style="list-style-type: none"> Points count anytime That was 80's and early 90's, not many blowouts today How many assists, not when Other: _____ 	Average = 8.9	_____
TOTAL POINTS =		100	100

SECTION B

1. You have been allocated 100 importance points. Please indicate the number of points that you would assign to each of the following *salary factors* based on the importance they should have in determining the salary of an NHL forward.

Remember that the grand total of all points allocated must equal 100 points!

Salary Factor:	Rationale:	Average Score from Previous Round	# of Points Allocated
a) Offensive Performance	<ul style="list-style-type: none"> • Need to score to win games • Other: _____ 	Average = 41.3	_____
b) Defensive Performance	<ul style="list-style-type: none"> • Can't win without this type of performance • Other: _____ 	Average = 18.8	_____
c) Leadership	<ul style="list-style-type: none"> • Somebody has to keep the team together • Other: _____ 	Average = 11.9	_____
d) Robustness	<ul style="list-style-type: none"> • It's part of the game, big impact • Unnecessary part of the game • Other: _____ 	Average = 6.3	_____
e) Fan Appeal	<ul style="list-style-type: none"> • They're still the ones buying the tickets • Other: _____ 	Average = 3.1	_____
f) Rookie	<ul style="list-style-type: none"> • Other: _____ 	Average = 6.9	_____
g) Superstar	<ul style="list-style-type: none"> • Hart Trophy alone is more important than all others • Often, the players that fans want to see • Other: _____ 	Average = 11.9	_____
TOTAL POINTS =		100	100

***THANK YOU ONCE AGAIN
FOR YOUR SUPPORT OF THIS
RESEARCH ENDEAVOUR!***

APPENDIX O

Operationalization of Player Compensation Model

Operationalization of Player Compensation Model

Sample A - Superstar

League Average Salary:		100.0%	\$1,276,975.55				
SALARY FACTOR: OFFENSIVE PERFORMANCE	VARIABLE:			LEAGUE MEAN:	PLAYER'S SCORE:	VARIABLE SALARY:	
		38.57%	\$492,529.47				
DEFENSIVE PERFORMANCE	Goals	35.00%	\$172,385.31	7.40	32	\$207,785.64	
	Even-Strength	27.86%	\$48,021.62	2.19	10	\$190,969.37	
	Power-Play	24.29%	\$41,865.00	0.36	0	\$0.00	
	Short-Handed	10.71%	\$18,469.86	1.54	5	\$76,153.89	
	Game-Winning	13.57%	\$23,395.15	0.21	1	\$61,939.90	
	Game-Tying	7.57%	\$13,052.03	0.02	0	\$0.00	
	Penalty-Shot	11.43%	\$19,701.18	1.28	6	\$19,631.19	
	Clutch	2.43%	\$4,186.50	0.48	2	\$15,479.50	
	Blowout	2.14%	\$3,693.97			\$571,969.49	
		100.00%	\$172,385.31				
	Assists	18.57%	\$91,469.76	10.33	35	\$81,914.38	
	Even-Strength	26.43%	\$24,174.15	3.41	19	\$149,402.85	
	Power-Play	29.29%	\$26,787.57	0.25	0	\$0.00	
	Short-Handed	14.29%	\$13,067.11	1.84	8	\$96,806.64	
	Clutch	24.29%	\$22,214.08	0.71	1	\$7,360.25	
	Blowout	5.71%	\$5,226.84			\$335,484.12	
		100.00%	\$91,469.76			\$296,339.33	
	Points	15.00%	\$73,879.42	23.93	96	\$247,541.84	
	Points/Game	12.86%	\$63,325.22	0.39	1.52	\$81,751.01	
	Shots	4.93%	\$24,274.67	86.11	290	\$17,206.53	
	Shooting %	2.79%	\$13,720.46	11.55%	14%	\$614.37	
LEADERSHIP	Total Faceoffs	3.86%	\$18,997.57	278.30	9	\$20,664.66	
	Faceoff %	7.00%	\$34,477.06	37.04	22.2	\$1,571,561.34	
		100.00%	\$492,529.47			\$2,153,400.97	
	Plus / Minus	22.00%	\$50,174.92	-0.61	25	\$2,068,950.72	
	Takeaways	14.00%	\$31,929.50	24.23	33	\$43,487.74	
	Giveaways	17.00%	\$38,771.53	28.50	106	\$10,424.76	
	Shots Blocked	19.00%	\$43,332.89	17.03	12	\$30,537.74	
	Selke	28.00%	\$63,858.99	431.00	0	\$0.00	
		100.00%	\$228,067.83			\$2,153,400.97	
	"C" or "A"	16.67%	\$22,794.01	0.15	3.00	\$468,287.14	
	Years	15.00%	\$20,514.61	6.17	10	\$33,268.60	
	Total Games	14.67%	\$20,058.73	331.75	725	\$43,835.90	
	Games Played	20.83%	\$28,492.52	50.33	63	\$35,664.57	
	Ice Time	20.83%	\$28,492.52	13.14	23.2	\$50,302.25	
	Byng	3.83%	\$5,242.62	302.00	5	\$86.80	
	Masterton	3.67%	\$5,014.68	3.00	0	\$0.00	
	Clancy	4.50%	\$6,154.38	2.00	0	\$0.00	
		100.00%	\$136,764.08			\$631,445.25	
ROBUSTNESS	PIM	11.43%	\$9,588.26	36.21	50	\$13,238.18	
		6.57%	\$83,897.29				

Operationalization of Player Compensation Model

Sample B - Enforcer

League Average Salary:		100.0%	\$1,276,975.55				
SALARY FACTOR:							
OFFENSIVE PERFORMANCE		38.57%	\$492,529.47				
VARIABLE:							
Goals		35.00%	\$172,385.31				
Even-Strength		27.86%	\$48,021.62	7.40	5	\$32,466.51	
Power-Play		24.29%	\$41,865.00	2.19	0	\$0.00	
Short-Handed		10.71%	\$18,469.86	0.36	0	\$0.00	
Game-Winning		13.57%	\$23,395.15	1.54	2	\$30,461.55	
Game-Tying		7.57%	\$13,052.03	0.21	0	\$0.00	
Penalty-Shot		11.43%	\$19,701.18	0.02	0	\$0.00	
Clutch		2.43%	\$4,186.50	1.28	0	\$0.00	
Blowout		2.14%	\$3,693.97	0.48	0	\$0.00	
		100.00%	\$172,385.31			\$62,928.06	
Assists		18.57%	\$91,469.76				
Even-Strength		26.43%	\$24,174.15	10.33	8	\$18,723.29	
Power-Play		29.29%	\$26,787.57	3.41	1	\$7,863.31	
Short-Handed		14.29%	\$13,067.11	0.25	0	\$0.00	
Clutch		24.29%	\$22,214.08	1.84	0	\$0.00	
Blowout		5.71%	\$5,226.84	0.71	1	\$7,360.25	
		100.00%	\$91,469.76			\$33,946.84	
Points		15.00%	\$73,879.42	23.93	14	\$43,216.15	
Points/Game		12.86%	\$63,325.22	0.39	0.20	\$32,489.87	
Shots		4.93%	\$24,274.67	86.11	64	\$18,041.60	
Shooting %		2.79%	\$13,720.46	11.55%	8%	\$9,281.79	
Total Faceoffs		3.86%	\$18,997.57	278.30	4	\$273.06	
Faceoff %		7.00%	\$34,477.06	37.04	25	\$23,271.02	
		100.00%	\$492,529.47			\$223,448.39	
DEFENSIVE PERFORMANCE		17.86%	\$228,067.83				
Plus / Minus		22.00%	\$50,174.92	-0.61	-5	\$6,084.06	
Takeaways		14.00%	\$31,929.50	24.23	5	\$6,589.05	
Giveaways		17.00%	\$38,771.53	28.50	32	\$34,532.02	
Shots Blocked		19.00%	\$43,332.89	17.03	10	\$25,448.12	
Selke		28.00%	\$63,858.99	431.00	0	\$0.00	
		100.00%	\$228,067.83			\$72,653.24	
LEADERSHIP		10.71%	\$136,764.08				
"C" or "A"		16.67%	\$22,794.01	0.15	0.00	\$0.00	
Years		15.00%	\$20,514.61	6.17	11	\$36,595.46	
Total Games		14.67%	\$20,058.73	331.75	628	\$37,970.96	
Games Played		20.83%	\$28,492.52	50.33	70	\$39,627.30	
Ice Time		20.83%	\$28,492.52	13.14	9.97	\$21,616.96	
Bying		3.83%	\$5,242.62	302.00	0	\$0.00	
Masterlon		3.67%	\$5,014.68	3.00	0	\$0.00	
Clancy		4.50%	\$6,154.38	2.00	0	\$0.00	
		100.00%	\$136,764.08			\$135,810.67	
ROBUSTNESS		6.57%	\$83,897.29				
PIM		11.43%	\$9,588.26	36.21	198	\$52,423.21	

FAN APPEAL	3.43%	\$43,800.26	# Major Penalties	13.57%	\$11,386.06	1.53	14	\$104,152.21
			# Minor Penalties	9.29%	\$7,790.46	12.11	29	\$18,663.09
			# Fighting Penalties	16.43%	\$13,783.13	1.47	14	\$131,477.84
			# Roughing Penalties	15.00%	\$12,584.59	2.29	12	\$66,046.23
			Hits	34.29%	\$28,764.79	59.85	85	\$40,849.53
				100.00%	\$83,897.29			\$413,612.10
ROOKIE	4.29%	\$54,782.25	All * Fan Votes	43.57%	\$19,084.40	23701.18	0.00	\$0.00
			All* Start Lineups	56.43%	\$24,715.86	0.09	0	\$0.00
				100.00%	\$43,800.26			\$0.00
			Draft #	27.14%	\$14,869.47	182.32	253	\$20,634.36
			Rookie of Month	11.43%	\$6,260.83	0.01	0	\$0.00
SUPERSTAR	18.57%	\$237,134.36	All Rook Team	14.29%	\$7,826.04	0.07	0	\$0.00
			CSB Rating	9.29%	\$5,086.92	101.57	266	\$1,942.40
			Calder	37.86%	\$20,739.00	553.00	0	\$0.00
				100.00%	\$54,782.25			\$22,576.76
			All* Team Votes	7.14%	\$16,938.17	2.85	0	\$0.00
			All* MVP	4.29%	\$10,162.90	0.01	0	\$0.00
			Player of Week	7.43%	\$17,615.70	0.02	0	\$0.00
			Player of Month	8.29%	\$19,648.28	0.01	0	\$0.00
			3 Stars	7.86%	\$18,631.99	12.52	6	\$8,926.85
			Hart	32.86%	\$77,915.58	396.00	0	\$0.00
			Conn S.	17.86%	\$42,345.42	1.00	0	\$0.00
			Pearson	14.29%	\$33,876.34	3.00	0	\$0.00
				100.00%	\$237,134.36			\$8,926.85
							MODEL TOTAL:	\$877,028.02
							ACTUAL TOTAL:	\$1,684,937.00
	100.0%	\$1,276,975.55			\$1,276,975.55			

Operationalization of Player Compensation Model

Sample C - Journeyman

League Average Salary:		100.0%	\$1,276,975.55				
SALARY FACTOR:							
OFFENSIVE PERFORMANCE		38.57%	\$492,529.47				
VARIABLE:				LEAGUE MEAN:	PLAYER'S SCORE:	VARIABLE SALARY:	
Goals		35.00%	\$172,385.31				
Even-Strength		27.86%	\$48,021.62	7.40	11	\$71,426.31	
Power-Play		24.29%	\$41,865.00	2.19	12	\$229,163.25	
Short-Handed		10.71%	\$18,469.86	0.36	0	\$0.00	
Game-Winning		13.57%	\$23,395.15	1.54	1	\$15,230.78	
Game-Tying		7.57%	\$13,052.03	0.21	0	\$0.00	
Penalty-Shot		11.43%	\$19,701.18	0.02	0	\$0.00	
Clutch		2.43%	\$4,186.50	1.28	1	\$3,271.87	
Blowout		2.14%	\$3,693.97	0.48	0	\$0.00	
		100.00%	\$172,385.31			\$319,092.20	
Assists		18.57%	\$91,469.76				
Even-Strength		26.43%	\$24,174.15	10.33	26	\$60,850.68	
Power-Play		29.29%	\$26,787.57	3.41	4	\$31,453.23	
Short-Handed		14.29%	\$13,067.11	0.25	0	\$0.00	
Clutch		24.29%	\$22,214.08	1.84	4	\$48,403.32	
Blowout		5.71%	\$5,226.84	0.71	0	\$0.00	
		100.00%	\$91,469.76			\$140,707.23	
Points		15.00%	\$73,879.42	23.93	53	\$163,604.00	
Points/Game		12.86%	\$63,325.22	0.39	0.77	\$124,779.92	
Shots		4.93%	\$24,274.67	86.11	150	\$42,285.00	
Shooting %		2.79%	\$13,720.46	11.55%	15%	\$18,217.07	
Total Faceoffs		3.86%	\$18,997.57	278.30	7	\$477.85	
Faceoff %		7.00%	\$34,477.06	37.04	28.6	\$26,622.04	
		100.00%	\$492,529.47			\$835,785.32	
DEFENSIVE PERFORMANCE		17.86%	\$228,067.83				
Plus / Minus		22.00%	\$50,174.92	-0.61	-10	\$3,042.03	
Takeaways		14.00%	\$31,929.50	24.23	39	\$51,394.60	
Giveaways		17.00%	\$38,771.53	28.50	34	\$32,500.72	
Shots Blocked		19.00%	\$43,332.89	17.03	27	\$68,709.92	
Selke		28.00%	\$63,858.99	431.00	0	\$0.00	
		100.00%	\$228,067.83			\$155,647.28	
LEADERSHIP		10.71%	\$136,764.08				
"C" or "A"		16.67%	\$22,794.01	0.15	0.00	\$0.00	
Years		15.00%	\$20,514.61	6.17	13	\$43,249.18	
Total Games		14.67%	\$20,058.73	331.75	792	\$47,886.94	
Games Played		20.83%	\$28,492.52	50.33	69	\$39,061.19	
Ice Time		20.83%	\$28,492.52	13.14	18.52	\$40,155.07	
Bying		3.83%	\$5,242.62	302.00	0	\$0.00	
Masterton		3.67%	\$5,014.68	3.00	0	\$0.00	
Clancy		4.50%	\$6,154.38	2.00	0	\$0.00	
		100.00%	\$136,764.08			\$170,352.39	
ROBUSTNESS		6.57%	\$83,897.29	36.21	62	\$16,415.35	
PIM		11.43%	\$9,588.26				

FAN APPEAL	# Major Penalties	13.57%	\$11,386.06	1.53	2	\$14,878.89
	# Minor Penalties	9.29%	\$7,790.46	12.11	21	\$13,514.65
	# Fighting Penalties	16.43%	\$13,783.13	1.47	2	\$18,782.55
	# Roughing Penalties	15.00%	\$12,584.59	2.29	2	\$11,007.70
	Hits	34.29%	\$28,764.79	59.85	211	\$101,402.96
		100.00%	\$83,897.29			\$176,002.09
ROOKIE	All * Fan Votes	43.57%	\$19,084.40	23701.18	0.00	\$0.00
	All* Start Lineups	56.43%	\$24,715.86	0.09	0	\$0.00
		100.00%	\$43,800.26			\$0.00
	Draft #	27.14%	\$14,869.47	182.32	268	\$21,857.74
	Rookie of Month	11.43%	\$6,260.83	0.01	0	\$0.00
SUPERSTAR	All Rook Team	14.29%	\$7,826.04	0.07	0	\$0.00
	CSB Rating	9.29%	\$5,086.92	101.57	241	\$2,143.90
	Calder	37.86%	\$20,739.00	553.00	0	\$0.00
		100.00%	\$54,782.25			\$24,001.64
	All* Team Votes	7.14%	\$16,938.17	2.85	0	\$0.00
	All* MVP	4.29%	\$10,162.90	0.01	0	\$0.00
	Player of Week	7.43%	\$17,615.70	0.02	0	\$0.00
	Player of Month	8.29%	\$19,648.28	0.01	0	\$0.00
	3 Stars	7.86%	\$18,631.99	12.52	32	\$47,609.88
	Hart	32.86%	\$77,915.58	396.00	0	\$0.00
	Conn S.	17.86%	\$42,345.42	1.00	0	\$0.00
	Pearson	14.29%	\$33,876.34	3.00	0	\$0.00
		100.00%	\$237,134.36			\$47,609.88
			\$1,276,975.55			\$1,409,398.59
					MODEL TOTAL:	\$2,750,000.00
					ACTUAL TOTAL:	

Operationalization of Player Compensation Model

Sample D - Rookie

League Average Salary:		100.0%	\$1,276,975.55								
SALARY FACTOR:				VARIABLE:		LEAGUE MEAN:		PLAYER'S SCORE:		VARIABLE SALARY:	
OFFENSIVE PERFORMANCE				38.57%	\$492,529.47	Goals	35.00%	\$172,385.31	7.40	1	\$6,493.30
						Even-Strength	27.86%	\$48,021.62	2.19	0	\$0.00
						Power-Play	24.29%	\$41,865.00	0.36	0	\$0.00
						Short-Handed	10.71%	\$18,469.86	1.54	0	\$0.00
						Game-Winning	13.57%	\$23,395.15	0.21	0	\$0.00
						Game-Tying	7.57%	\$13,052.03	0.02	0	\$0.00
						Penalty-Shot	11.43%	\$19,701.18	1.28	0	\$0.00
						Clutch	2.43%	\$4,186.50	0.48	0	\$0.00
						Blowout	2.14%	\$3,693.97			
							100.00%	\$172,385.31			\$6,493.30
						Assists	18.57%	\$91,469.76	10.33	0	\$0.00
						Even-Strength	26.43%	\$24,174.15	3.41	0	\$0.00
						Power-Play	29.29%	\$26,787.57	0.25	0	\$0.00
						Short-Handed	14.29%	\$13,067.11	1.84	0	\$0.00
						Clutch	24.29%	\$22,214.08	0.71	0	\$0.00
						Blowout	5.71%	\$5,226.84			\$0.00
							100.00%	\$91,469.76	23.93	1	\$3,086.87
						Points	15.00%	\$73,879.42	0.39	0.13	\$20,306.17
						Points/Game	12.86%	\$63,325.22	86.11	7	\$1,973.30
						Shots	4.93%	\$24,274.67	11.55%	14%	\$16,972.43
						Shooting %	2.79%	\$13,720.46	278.30	9	\$614.37
						Total Faceoffs	3.86%	\$18,997.57	37.04	33.3	\$30,996.99
						Faceoff %	7.00%	\$34,477.06			\$80,443.43
							100.00%	\$492,529.47			
DEFENSIVE PERFORMANCE				17.86%	\$228,067.83	Plus / Minus	22.00%	\$50,174.92	-0.61	-1	\$30,420.29
						Takeaways	14.00%	\$31,929.50	24.23	2	\$2,635.62
						Giveaways	17.00%	\$38,771.53	28.50	8	\$138,128.06
						Shots Blocked	19.00%	\$43,332.89	17.03	1	\$2,544.81
						Selke	28.00%	\$63,858.99	431.00	0	\$0.00
							100.00%	\$228,067.83			\$173,728.78
LEADERSHIP				10.71%	\$136,764.08	"C" or "A"	16.67%	\$22,794.01	0.15	0.00	\$0.00
						Years	15.00%	\$20,514.61	6.17	2	\$6,653.72
						Total Games	14.67%	\$20,058.73	331.75	10	\$604.63
						Games Played	20.83%	\$28,492.52	50.33	8	\$4,528.83
						Ice Time	20.83%	\$28,492.52	13.14	11.55	\$25,042.71
						Bying	3.83%	\$5,242.62	302.00	0	\$0.00
						Masterton	3.67%	\$5,014.68	3.00	0	\$0.00
						Clancy	4.50%	\$6,154.38	2.00	0	\$0.00
							100.00%	\$136,764.08			\$36,829.90
ROBUSTNESS				6.57%	\$83,897.29	PIM	11.43%	\$9,588.26	36.21	6	\$1,588.58

248

VITA AUCTORIS

- Name:** Jess Charles Dixon
- Birth:** Hamilton, Ontario, Canada
November 14, 1975
- Education:** Ancaster High & Vocational School
Ancaster, Ontario, Canada
1989-1991
- Orchard Park Secondary School
Stoney Creek, Ontario, Canada
1991-1995
- Bachelor of Sport Management (Honours)
Brock University
St. Catharines, Ontario, Canada
1995-1999
- Master of Human Kinetics (Sport Management)
University of Windsor
Windsor, Ontario, Canada
1999-2003
- Academic Experience:** The University of Windsor - Department of Kinesiology
- 2000-2001 - Graduate Assistant
 - 2001-2002 - Teaching Assistant
- Brock University - Department of Sport Management
- 2001-2002 - Lecturer
 - 2002-2003 - Lecturer