Exploratory Research into the Value of Relative Seniority in the Workplace

by

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A Thesis submitted to the Faculty of Graduate Studies of

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Abstract

Workers receive seniority from working at a firm. Researchers measure seniority from large databanks. While there is no doubt about seniority providing value, it is the division into absolute and relative seniority that causes the potential for misrepresentation of true value, which is determined by workers. Absolute seniority is measured in service years and relative seniority by percentage ranking. A survey of workers within a firm was used to measure relative seniority, reporting accuracy as well as its influence on workplace valuations. Results show that relative seniority is a significant variable for workplace valuations and worker self-reporting of this variable is highly accurate. By showing the potential for better measurement, and acknowledging the issues that currently deter its usage, it is hoped that further methodological research can be done with a goal towards making relative seniority measurement more acceptable and included in academic research in workplace value.

Acknowledgements

Dedications

I dedicate all my past, present, and future work to Twilla MacDonald who showed

me there is more to the meaning of living than facts, figures, and rules.

'All of us are better when we're loved.'
- Alistair MacLeod, *No Great Mischief*

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1. Introduction

Seniority has multiple meanings and coinciding processes within the social and industrial organizations used by people. Seniority is usually measured in terms of years, months and days. This chronological measurement is quantified to be used as a distribution system. However, it is not just the amount of tenure that matters but also the relation to all other workers' tenure within a firm. This relative measurement provides some of the distribution and its corresponding values. Instead of focussing solely on tenure, there should be a shift in research to acknowledge and include the effects of relative seniority to create a more encompassing analysis.

This thesis examines seniority, using multiple disciplinary approaches and complements the various theories with a survey of workers at a manufacturing firm. Sociological approaches explain the current norms that recognize the rewarding of elders, or senior employees, for their previous service to society or workplace and a need to create systems that promote future rewards for current younger workers in an effort to enhance productivity. Historical research corroborates the desires for workers to create seniority systems as rites and rituals continued from pre-capitalist societies. Economic analysis explains the value creation for senior employees and employer acceptance of this process up to a certain point of lowered productivity. Industrial relations approaches use seniority as an organizational behaviour factor in various managerial decisions in promotion, demotion and layoffs in almost all corporations, including those which are not unionized. All approaches recognize that while unions may promote seniority systems, a greater majority of non-unionized workplaces recognize seniority value as an extension

of similar social values in place for generations prior to the arrival of unions in a legalized context.

The thesis takes the approach of providing analysis of varied definitions and functions of seniority as its starting point. It then provides historical, sociological, economic, and labour studies analyses of the applications and implications from using a seniority system. This will be followed by a review of the relevant work processes of workers at a local manufacturing firm. Next is the description of the survey steps and research methods. The empirical results are first presented in a summarized manner and, subsequently, discussed in relation to the realities and applications of life in an industrial society. Finally the conclusion will combine the theories and findings into a contextual report that shows how current seniority research may adjust to recognize previously ignored values and distinct measurement methods to reflect the more proper definition of the seniority variable. I hope that this paper leads to further analysis and research towards a more complete collective bargaining process for industrial relations interaction and additional benefit compensation models for employee relations in work environments where unions do not exist.

On a technical note: Statistical significance is indicated throughout this paper with asterisk notations as indicated in Table 1.

Table 1. Statistical Significance Reporting Format

Statistical Significance	Reported Indication
$p \leq 0.100$	*
$p \leq 0.050$	**
$p \leq 0.010$	***
$p \leq 0.005$	****

2. Seniority Definitions and Functions

Seniority, as related to workplace environments, has many applications derived from an apparently simplistic measurement. However, the underlying definitions and functions derived from this measurement reveal a more complex calculation than generally thought of by the populace. People "have" seniority and because this implies some type of ownership they may draw similarities to property rights. When a person is considered to be "senior" or "junior", the implied measurement is relative in nature as he or she is considered senior or junior in relation to other people. When workers "gain seniority" through continued tenure, there is an implied value that is of an absolute measurement of specific time. With varied implications, and their corresponding applications, the functional definition of seniority must be expanded to include the various, yet intertwining, subsets.

Seniority is generally defined through length of service and may imply a ranking or status between workers. Status is derived through the accumulation of tenure, a perceived entitlement to value based on this tenure, or acquisition of organizationally or socially desired values. The application of service length creates an 'institutional age' to confer these values to organizationally 'older' workers more so than 'younger' workers (C. Gersuny, 1982b, p. 518). Service length is mainly, though not always nor solely, a determining factor for employee claims to relative equities, jobs, and prerogatives that are deemed as applicable criteria to their specific collective workplace scope (Meyers, 1965). Only when service length is codified in an organization, either formally or informally, for some terms of employment or benefits does it become seniority (C. Gersuny, 1982a).

Thus, the rudimentary definition and function of seniority is the application of service in a process that distributes organizationally derived values.

As the process of distributing socially desired values that are derived from providing servitude to an organization becomes normalized or codified, there is some expectation of continued acquisition of these values. This expectation of continued distribution process becomes the socialization of a derived property right. Continued deliverance of value exacerbates the perceived ownership of receiving values based on service. When workers choose seniority as a method of allocation, seniority rights are created (Dulude, 1995). As the created seniority rights are positively related to property rights of valued benefits, the reliance on seniority to provide value becomes pervasive and more acceptable as a social norm. The circular and cumulative relation between seniority providing value and value apportioned according to seniority creates an almost incontestable process for ownership and distribution.

Value is distributed in two different methods. These methods have been described as "competitive status seniority" for items such as layoff and promotion, and "benefit seniority" for items such as vacation allotment and wage increases (Peach & Kuechle, 1985, pp. 256-259). Competitive status seniority allocation occurs for valued items that can be apportioned fully to workers, but only to some of them. This requires a list ranking the workers and distributing the value to some. Workers develop their ability to achieve value solely on their relation and positioning on the list to fellow employees. Thus, a more apt description would be *relative seniority* and this will be the descriptive term used hereinafter. Benefit seniority allocation happens based on longevity where all workers can acquire the value regardless of their relation to other employees. This system entails a

set of rules establishing rewards based on length of service (C. Gersuny, 1982a). As the distribution is established and codified, the appropriate title would be *absolute seniority* and such will be the descriptive term used hereinafter. As length of service becomes the socially accepted and preferred method for distribution of organizationally derived value, seniority becomes a treasured right for gains based on the workers' absolute number of service years and their relative position on the appropriate organizational list.

2.1 Absolute Seniority

Absolute seniority provides an organization's ability to distribute wages and benefits to its workforce in an empirically measured and predetermined fashion that can be statistically monitored. The values distributed through absolute seniority arise from the fiscal resources of the organization.

Table 2. Frequency and Duration of Absolute Seniority Value Distribution

| | | Frequency | |
		REGULAR	MILESTONE
Distribution	ONGOING	Periodic, Continuous (e.g. Pension)	Episodic, Continuous (e.g. Wages/Vacation)
	COMPLETE	Periodic, One-Time (e.g. Service Bonus)	Episodic, One-Time (e.g. Service Award)

Distribution occurs in four manners, based on the dichotomous methods of both frequency and duration. Frequency of distribution is either of a regular nature or based on reaching certain milestones. Regular frequency involves multiple distributions over a career, such as annually. Milestone frequency involves a distribution that occurs or starts once a certain number of years of service have been provided by the employee. Duration of distribution is either of a complete or ongoing nature. Complete duration involves a one-time payout. Ongoing duration involves distribution that continues over the career.

Table 2 provides a tabular cross-reference indicating the coordinated four manners of distribution that arise from the interaction of the two criteria of frequency and duration.

The most common distribution of organizational value is the episodic and continuous methods of milestone—ongoing. Certain specified anniversary dates trigger additional and ongoing compensation, with the most common examples being wage increases and greater vacation allotment connected with service dates. When the compensation is that of a singular payout while still being episodic, the distribution manner becomes milestone—complete. Service awards, based on specific anniversaries and finite compensation, is the main distribution manner and could include signing bonuses if the payout amounts differed according to workers' seniority. If the frequency is periodic instead of episodic, the manner is regular—complete. Some contractual agreements provide for annual additional compensation based on years of service, and these types of service bonuses would fall into this category. Finally, if the periodic compensation is continuous, the manner is defined as regular—ongoing. Most widespread compensation in this category would be a defined benefit pension, as the actual value accrued each year is actuarially greater for those with greater seniority (Freeman & Medoff, 1984). As usage rates for certain health benefits increase with age, they could also be included in this category under the specific criterion.

2.2 Relative Seniority

Relative seniority provides a codified selection process for the distribution of finite resources. This ranking is not solely based on years of service (as is the case with absolute seniority) but also relies on the years of service of all other employees and the number of employees within the relevant unit or department. A worker with many years

of service can be considerably junior in relative seniority if the majority of workers at the location have more years of service. Similarly, a worker could have few years of service and still be considered relatively senior if the majority of workers had been hired afterwards.

Equation 1. Relative Seniority

$$SR = \left(1 - \left(\frac{\left(NumberOfSeniorEmployees\right)}{NumberOfEmployees}\right)\right) \times 100$$

A relative seniority measurement scale (0.01 – 100.00, expressed as a percentage, larger number is more senior) is stated in Equation 1 showing the relevance of the number of senior employees in the numerator and the total number of employees in the denominator. A more accurate term for the numerator could be the number of "more-senior" employees than that of the particular person. The term "senior" will be used for simplicity's sake. Equation 2 states an alternative calculation that provides the same results as the equation stated previously.

Equation 2. Relative Seniority (Alternate Calculation)

$$SR = \frac{NumberOfJuniorEmployees}{NumberOfEmployees} \times 100$$

While this may be easier to interpret, it places the larger numbers of the scale with the more junior employees. As over 70% of the survey respondents identified themselves in relation to the top of the seniority list, it is apparent that the larger numbers of the scalar measurement should also reflect this human interpretation. The greater majority of workers estimate the number of more-senior coworkers instead of those who may be junior to them.

Table 3. Effects on Relative Seniority

		Number of Senior Employees	
		INCREASE (Seniority Loss)	DECREASE (Seniority Gain)
Total Employees	INCREASE (Seniority Gain)	AMBIGUOUS	SENIORITY GAIN
	DECREASE (Seniority Loss)	SENIORITY LOSS	AMBIGUOUS

There are two ways for people to gain relative seniority: (1) the number of senior employees can be reduced, usually through retirement or promotion out of the ranks; and (2) the total number of employees can be increased, through an organizational hiring exercise. Conversely, people can lose relative seniority through: (1) increasing the number of senior employees, usually through transfer or bumping situations in firms with an encompassing seniority list and separate departments where seniority is brought with them when they enter; and (2) the total number of employees is reduced, usually with junior employees quitting or being laid off. Table 3 shows the effects of change in both the number of senior employees and the total number of employees. While there are clear instances of a gain or loss, there are other times (such as retirements of senior agents at the same time of layoffs of junior agents) where the result is ambiguous and not known until all the transactions have been completed.

Relative seniority is used to prevent managerial favouritism regarding job security, promotions, assignment, and other selection items (such as vacation date determination) that are desired by the entire workforce (Rees, 1989). The codification of this process through the use of unions provides better protection against employer arbitrariness than simple market forces in a laissez faire capitalist mode of industrial

relations (Reder, 1960, p. 353). The creation of a "queue" through a seniority list enables any worker to identify those ranked above or below him or her. The cardinal measurement number of years is not important but; rather, the individual's specific location relative to the location of others is the meaningful measurement that is ordinal in application. Relative seniority can be the sole, primary, secondary or minimal factor with regards to promotions (Freeman & Medoff, 1984); however, unionized groups see seniority used slightly more often than nonunionised groups (K. G. Abraham & Medoff, 1985). Similarly, seniority is by far the most common criterion with which layoffs are distributed and, accordingly, job protection is greater in unionized groups than in nonunionised groups (K. G. Abraham & Medoff, 1984). Thus, the replacement of favouritism with fairness of the seniority list can be considered a value unto itself.

Seniority, whether it is absolute or relative, provides items of value to workers through different distribution processes. Some resources are easily measurable, such as organizational wealth, thus lending them more readily to an absolute seniority method that is also easily measured and calculated. Other resources, such as promotion and protection from layoff, are more personalized measurements and have limited slots of action at any given time. The selection process moves away from one of arbitrariness to one with a codified and regimented queue structure of relative seniority where all people generally know their own specific ranking and thus likelihood of receiving gains or avoiding losses. These two main processes under the banner of seniority provide the double meaning of the same word. Equity, as a value, is predominantly distributed through absolute seniority. Equity, as fairness, is mainly served through relative seniority. Both are potentially measurable.

2.3 Historical Review

The seniority principle was around prior to unionization. While unions may have brought seniority to light, they did not create it. The ideology of providing some form of structured fairness evolved out of (and practiced through) social interactions within different organizational units. While most employment relationship models are analyzed from the advent of the Industrial Revolution, some underlying influences predate it and should be reviewed. Governments are comprised of ruling officials, herein referred to as the state, and these officials have brought the social norm of seniority into the state's administrative and ruling doctrines. The state also influences and is influenced by its military, which also embodies some sense of recognition with years of service for prestigious appointments. The state administrative model of common respect and militaristic doctrine of authority over others filtered into the workplace atmosphere that changed its structure significantly after the Industrial Revolution. Moreover, state laws and court rulings evolved to reflect the new reality of seniority within the workplace and also strove to mould the essence of seniority into agreements, both implicit and explicit. Thus, it is necessary to understand the continued application of, and changes to, seniority as it pertains to society in general and more specifically in the workplace.

2.3.1 Pre-Industrialization Influences

Social structures that create hierarchical forms have been established repeatedly through history. These hierarchical systems are used to provide prestige and/or distribute finite resources in a manner prescribed by the influencing forces of the day. Families were the first social unit to establish a sense of hierarchy by using chronological age for seniority measurement and definition. This was created implicitly and naturally through

order of birth among siblings in addition to the dependency of children upon the leadership of adults and elders (van den Berghe, 1975). Family units came closer and interacted with other families, initial clans of civilization formed. There is evidence that initial informal gatherings in pre-colonial Africa dictated that food and drink were distributed in order of age, with elders receiving first, which created systems of respect and authority (Mair, 1962). Elders in the Zhou dynasty of China (1122 to 256 BC) were treated with more varieties of meat and vegetable dishes (Pilcher, 2006). The North American Chipewyans in the late 1700s were known to abandon their elders, leaving them to starve (Hearne as cited in Sharp, 1994). The first two examples show a distribution method based on positivity, where elders received value because of their seniority. The denial of limited resources through relative seniority shows a distribution method based on some sense of fairness instead of randomness, though those abandoned might not think so. The use of relative seniority (individual age compared to others in the community) for distribution of value is evident in different societies before the advent of a working class social structure.

Social interaction led to larger social organizational structures combined with greater interaction through the creation of villages, towns, and cities. New social classes arose, moving away from a vertical hierarchy of feudal systems towards a greater sense of equality for all citizens though only predominantly within their new class structure. Citizens residing in pre-capitalist European cities also appeared more willing to accept innovations and technological change compared to those living in the traditional rural landscape (Cipolla, 1976). These changes assisted in the transition from a social structure

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of servitude based on tradition to one where workplace production was an inherent way of life.

There was also a change to the social division of labour, wherein a greater possibility and requirement to work outside of the household arose. Workers of similar trades came together to create social organizations of guilds, which could be considered the precursor to unions in modern times. Guilds influenced civic politics in order to increase beneficial opportunities and living conditions for its members and society (Clarkson, 1971). Entrance into the guild was restricted and job opportunities were meted out based on the guild's accepted measurement of service. An institutional age, or seniority, was being used to deliver benefits, or value to its members. Thus was born the ideology of legitimized collective groups in the realm of paid work influencing social structure and distributing employment benefits based on seniority.

2.3.2 Seniority in the State and Military Mannerisms

In order to defend or expand their realms, states require a power that comes with a military force. The military becomes another organizational institution which influences and is influenced by society in shaping social norms. Another integrated institution of society is the public administration of the state itself. Both military and administration have created hierarchies of authority and prestige while including bureaucratic methods. Even though prestige and value was initially distributed through patronage and/or meritocracy, seniority became the distribution method within these institutions similar to other facets of social life.

Initial British armies were established on an ad hoc basis and were primarily made up of peasants defending their local area under the tradition of supporting their

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lords, who acted as officers. This method continued the peasants' local servitude but did

nothing to create a nation-wide army whose allegiance was to the larger state. In order to

integrate members into a larger organization, national leaders moved away from

impressment and chose to implement a paternalistic appeal for peasants to volunteer

combined with a call for allegiance by the local leaders (Malcolm, 1978). There was an

attempt to move away from using aristocratic position in the determination of ranking.

This led to the process of commissions established for a national military. Careers were

now possible and advancement to prestigious positions of command was one way for

peasants to achieve some form of social status. By the 1660s, almost ninety percent of

England's Royalist Officer Corps were not from local community leadership positions

but achieved command positions through a sense of duty and an element of ambition

(Newman, 1983). Local commanders were given the right to promote others into

commissioned ranks of officers. Even though there was an abundant amount of bribery,

or "purchase", there was an expectation of seniority being a decisive factor (in addition to

performance merit) to the extent that bypass appeals were predominantly argued on

seniority being overlooked (Burton & Newman, 1963). Interestingly, the purchase system

was so rampant that parliament first attempted to regulate the "prices" even though this

was impossible to administer and it was not unitl 1871 that the practice was eliminated

through the codification of a selection process where seniority was the dominant role

(Erickson, 1959).

British naval positions were also influenced by social norms towards seniority

selection. By the end of the eighteenth century, patronage was a natural process for

position selection up to the position post Captain (with seniority being implicitly used

intermittently) and seniority was a standard explicit rule thereafter (Dandeker, 1978). As seniority (measured by time at sea) was the rule for higher prestigious positions, people wanting to accelerate their careers now had to put more time on the waves than with the previous patronage process in order to receive their initial promotions and begin accumulating seniority towards the ambitious ruling titles. With a reduction of navy size during the early nineteenth century, there were limited higher positions. The admiralty centralized the allocation process in order to maintain seniority selection for limited positional resources with a sense of neutral integrity amid complaints of junior officers feeling stagnant and discrediting current higher officers' competency (Dandeker, 1978). Similar concerns in the United States saw the rise of an Efficiency Board in 1855. The concerns over stagnancy and ineffective leaders were addressed through a review of current officers that resulted in many being placed 'on reserve' that effectively removed them from title and allowed for junior officers to be promoted (Weddle, 2004). However, senior officers felt that the poor implementation was an attack on their entitlement and resulted in a process that involved meritocracy as only a small part of the selection and promotion process, with seniority still being a relevant factor. Previous processes of election, examination, and merit have been found to be unsatisfactory; seniority remains as an imperfect though neutrally effective selection and promotion method, especially in times of peace (Severus, 1941). The prevalent promotion method incorporates seniority and can include merit when there is an undeniable ability to measure actions in an efficient and accurate manner.

Similar to and connected with changes to military advancement was the promotion process within British state administration. Parliament had placed leaders into

the House by order of prestige; however seniority was also acknowledged when they admitted twenty bishops into the House of Lords during the 1600s based on service years and not by position (Laundy, 1958). The allowance for prestige and patronage in British appointments differed from that practiced in other countries (such as China) where civil service advancement based on seniority became more prevalent (C. Gersuny, 1982b). By the turn of the nineteenth century, British parliament still ignored changes to the military appointment process and used civil service positions for patronage appointments (Strachan, 1980). Like the military modifications, there was an impetus for civil service promotion reform. Though the 1850s , Sir Charles Trevelyan strove to remove patronage (even though there were initial exams) as part of his reform actions under Gladstone and was willing to accept that seniority appointment (up to the position of Assistant Clerk) could be the compromise in order to introduce meritocracy over patronage (C. E. Trevelyan, Hughes, & O'Brien, 1949). The state moved away from patronage towards a process of perceived fairness with seniority. The bureaucratic and military branches started using seniority as guiding principle while including some purportedly fair measure for meritocracy. Though meritocracy might be considered fair, a lack of neutral and effective measurable methods lend to distrust and disdain of this sytem. Seniority-based selection is left as the accepted method to deliver value in a manner perceived as fair.

2.3.3 Early Industry and Industrialism

The Industrial Revolution shifted the focus of working at one's own leisure for self-sufficiency to a system where people sold their labour-power for wages and the result of their production was destined for mass consumption. The mode of production

moved from home cottages to manufactories where owners also searched for technological innovations in an effort to reduce dependency on the worker's expertise and reduce the worker's wages accordingly as a means of increasing profit. It is in this context that social norms and traditions contrasted with the new mantras of labour surplus value, alienation, and division of labour.

One studied work environment is the cotton spinning industry, which was predominantly situated in Lancashire. Innovations in production allowed the cotton industry to move from one of the rather insignificant sectors to where, by the 1830s, it accounted for eight percent of Great Britain's national income and more than forty percent of its domestically produced export value. Cotton prices dropped over eighty percent and saw its demand dramatically increase (Deane, 1965). The innovations also changed the workplace and its relations between owners and workers. At the new mills, workers would number in the hundreds instead of the twenties, leading to a greater opportunity for economic and political action while the new owners had greater financial security, more education and perhaps greater enlightenment (G. M. Trevelyan, 1922). Employers maintained wage rates during the depression times of the mid-1820s, late-1830s and mid-1840s in an effort to keep their experienced workers while laying-off junior workers during these times, as evidenced by the percentage employed by age censuses of 1841, 1851, and 1861 (Huberman, 1986). While worker organizations of the time proved to effectively induce owners into using seniority-based layoffs instead of overall work-time and wage reductions, they did not go further into political action as workers were still split between Conservatism and Liberalism (Pelling, 1976). The principle of respecting and rewarding one's elders was transformed and modified in the

social organization of the workplace to something recognized as seniority that provided the value of continued employment for those with a greater institutional age.

A similar implementation of seniority systems involved the American railroad industry. The first record of a collective agreement dates back to 1875 and by 1939 there were over 4,500 separate collective agreements; all of which included sections related to seniority (Mater, 1940). The conceptual value of seniority was so extreme to the point where workers referred to each other by their seniority date, such as a "1904 man" (Gamst, 2001, p. 24). The underlying reasons behind seniority provisions being part of the primary collective agreement sections can be posited to societal expectations for fair treatment with respect and reward. The proliferation of smaller railway units in the later 1800s, owned by distant and absent barons, left workers with the undesired effect of local supervisor authoritative bias for selection and promotion (Mater, 1940). Workers would have to provide favours (for example, painting the supervisor's house) in order to receive additional benefits and had no local avenue to vent their grievances over this practice they felt as unjust. As well, after the Civil War a greater number of workers came from the military, to the point where railways ran on a militaristic form of discipline and authority (Mater, 1940). As workers were familiar to these practices, there was also an expectation for the use of reasonable meritocracy and the seniority principle they had experienced in their military career. Unions promoted fairness and respect for the seniority principle during organizing and were rewarded with ten-fold growth by the end of the century, even before legislative processes via the Wagner Act were introduced (Brooks, 1971). Like the desire for seniority being used for value distribution, workers were looking for fairer treatment and again expected seniority to provide it.

2.3.4 Codification of Custom

Canadian (and American) workers realized state recognition for the opportunity to collectively bargain with the introduction of PC1003 in 1944 (and the Wagner Act in 1935). Combining legal bargaining ability with union's penchant to include seniority provisions in their contracts would lend to an interpretation of state acceptance of the seniority principle. While the American reasoning to enact legislation was either a post-depression response to restore some power to utterly demoralized workers (Northrup & Bloom, 1963) or to quell their rising militancy (Goldfield, 1989) depending on one's interpretation of the historical contexts (Skocpol, Finegold, & Goldfield, 1990), the Canadian drive was to quell worker unrest and power that grew during the middle of the Second World War (MacDowell, 1992; McInnis, 2002). As the contexts varied for the governments, so too did worker reaction because their different perspectives include these governments with their varied codifications.

The 1948 *Industrial Relations Dispute Investigation Act* (IRDIA) was a descendant of PC1003, a 1944 order in council by Prime Minister King. Thirty years earlier, King had recognized that workers lacked the opportunity to cooperate effectively with owners and therefore had to compete with them for wages and benefits; however, he still promoted conciliation as the best method to handling the conflict of labour:

> Let Faith be substituted for Fear; let mutual consideration and confidence supplant suspicion, and constructive good-will replace resistance; let the parties to Industry recognize a mutuality, not a conflict of interest, in all that pertains to maximum production of wealth; and what is the result? Immediately, fresh energies are released, a new freedom is given to effort in Industry. Productivity is increased, as are also the respective rewards of all the parties. (King, 1918, p. 262)

While King believed in freedom of association, he did not agree with legislative actions to mandate bargaining such as Wagner did, so it is interesting to note that IRDIA did not evolve out of King's industrial relations background and conciliatory mantra. The two members of the National War Labour Board, which created and recommended the framework that would become PC1003 and IRDIA, represent the conflicting ideologies that would come together in the final representation of labour relations legislation. Justice McTague considered current laws too lax in stopping irresponsible unions and believed in compulsory collective bargaining laws as a means to maintain industrial order; this was perhaps a reflection of the "corporatist" ideals of his Catholicism (Hollander, 2001). Labour lawyer J.L. Cohen, having grown up in adverse conditions of a predominantly socialist and immigrant Jewish community, believed in industrial democracy and fought for the ability for working-class people to increase their economic and political power so as to participate and shape social progress (Hollander, 2001). So it was that the underlying tones of IRDIA combined industrial order with industrial democracy. In essence, workers traded their strike power and received seniority principles as part of their collective bargaining authority.

American workers advanced their seniority agenda using enhanced collective bargaining laws a decade earlier than their Canadian counterparts. Thirty-five percent of the wording in the 1937 contract between General Motors and the United Auto Workers recognized that economic downturns should be handled first by reduced hours, followed by layoffs using reverse seniority and included provisions to bypass workers with dependents (C. Gersuny & Kaufman, 1985). Managerial criticism was that seniority provided such a great value wherein workers would remain in their current job instead of

looking for better promises, so that seniority should be seen as protecting poorer workers while hamstringing better workers, to which unions responded that workers could have either opportunity or security but not both (C. Gersuny & Kaufman, 1985). The managerial critique that seniority stifled individual opportunism followed the mantra instilled as the "American way" of little or no intervention and influence of larger collective bodies (Lipset & Marks, 2000). It is interesting to note that is was labour itself that limited its workers' fortunes for having to choose between the two desired lifestyle wants. After the Second World War, veterans received their military service of duty recognized as counting toward seniority in their employment. Unions and firms also attempted to modify work rules in ways to reduce the effectiveness of seniority for women and blacks who worked in the plants during the war in such a manner that it did not officially remove but rather effectively reduced them into positions that facilitated their discriminatory exit from the workplace (C. Gersuny & Kaufman, 1985). Thus, it was seniority that provided value to the point that veterans demanded cross-employment consideration and it was possible to move this value from one group of workers to another, albeit in a discriminatory fashion.

Workers have fought for fairness and respect in the workplace throughout the history of employment relations. Their demand was to have eldership, a social norm, instilled in the workplaces where they would be spending a great amount of their time. Their great focus on this demand may have distracted them from greater radicalism to push for security in other ways such as full employment or worker ownership. Provision of seniority values appears large enough to satisfy workers wherein the state and firms need not fear a collective attack on the current political economy of a state.

2.4 Sociological Inquiry

Distribution of finite resources has occurred for centuries before capitalism and industrialism. Societies created norms of how this distribution happened, who received authority to determine the process, and what was deemed to be of value. Legitimatization of unequal distribution is also not a new phenomenon, but is more apparent under modern social and organizational structures. Even with the interpretation of a neutral bureaucratic approach, power regimes could explain the continued perpetuation of increasing inequalities within a supposedly indiscriminate system. Social norms of rewarding senior peoples were codified into the modern unionized locales, which were then integrated back into non-unionized workplaces, though to a lesser extent.

2.4.1 Socialization prior to Capitalism and Industrialism

Seniority was originally delineated by chronological age as a measurable determination of reward and authority. As authority bestows legitimized power, it would follow that the norm of the seniority principle within feudal societies was derived from legitimacy based on tradition (M. Weber, 1947). Lords kept care of long-serving serfs and peasants, continuing the reinforcement of the honour towards older citizens. Part of the legitimization of the rulers' power was established by the Church, which also influenced the social norms of the laity. Part of the Scriptures established the relative role of the younger and older, instructing the younger to be submissive to the older and for the older to lead without personal greed and gain (Barclay, 2007). The religious authorities accorded power to the ruling class and, as well, to elder people. Thus, the bestowment of authority based on age is the equivalent of achieving value through relative seniority. As it is also posited that religious interpretation of Calvinism assisted the development of

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capitalist society in the historic context (M. Weber, 1930), it is important to recognize the legitimacy and bounded rationality of the social organization of religion that established relative seniority and its values as a social norm. The pious promotion and establishment of seniority with regards to communal relations could not incorporate the future transformation that proletarianization would have on communities and their relationships. Further, after such economic change there would be an expectation of civic uprising to demand the social norm of "elder" respect that, in the new world of industrialism, could only be achieved through the collective actions of labour.

2.4.2 Legitimacy and Labour

Seniority provides a paradoxical value of "an objective criterion within the arbitrary boundaries of seniority districts" (C. Gersuny, 1982b, p. 524). Unions promote seniority rewards as a show of their power. Managers provide seniority benefits as a paternalistic measure. Employees demand seniority under their traditions and rights. Workplaces using seniority provide a sense of distribution reflective of social expectations of fairness. Unions promote seniority as something that provides job security and removes managerial arbitrariness, both in an effort to reinforce the perception of fairness. As many nonunionized workplaces also use the seniority principle, it is clear that unions cannot lay exclusive claim to this social norm in an effort to achieve legitimacy. Instead, seniority is a process expanded by union formation and pressure of social attitudes developed over ages to reward and take care of its 'elder' people.

Unions are legal entities that provides workers with the elected representation that they desire (Freeman & Rogers, 1999). However, the same state entity that legitimates union organizations presents a quasi-judicial system that does not allow workers to obtain

the representation that they desire at the appropriate level of certification. With an increased shift to mandatory representational votes, and few rules stopping powerful employers from coercion and intimidation, unionization rates decline and employees are left without their collective power (Riddell, 2001). As workers become disheartened with the results, they also look with envy at those workplaces having had successful unionization efforts, which could eventually lead to a distrust and detestation of the same unions they once desired (Sennett & Cobb, 1972). This disdain overshadows civic action that should be demanding more authority and voice for the collective workers.

A significant number of people do not recognize unionization let alone confer any legitimacy to it. In the labour movement, there are three types of legitimacy (Chaison & Bigelow, 2002). Pragmatic legitimacy relies on a self-regarding utility of satisfaction, while moral and cognitive legitimacy involves society's larger cultural rules (Suchman, 1995). A person's self-interest creates the union's pragmatic legitimacy and is the easiest to manipulate and threaten. This is comparable to people deciding what benefit they receive from the union in exchange for their dues. Society evaluates moral legitimacy by whether it perceives the institution to be promoting societal welfare. Society provides moral legitimacy if it considers the union's actions and goals to be just and coinciding with society's own beliefs. Cognitive legitimacy, rarely achieved, is society's acceptance of an institution as necessary. Unions may argue they have cognitive legitimacy because of their long existence and their belief that society would have further declined without central labour bodies' involvement. Union leadership must come to terms with cognitive legitimacy being negligible and not assume to have moral legitimacy as an institution (Chaison & Bigelow, 2002). Thus, a union's pride in its continued existence and

conviction in its goals is irrelevant. What society believes about a union is the only relevant point regarding cognitive and moral legitimacy.

2.4.3 Inequality and Power

Inequality is an unfair distribution of resources. In current capitalist societies, inequality arises in four main categories: race, gender, age, and class. All may have different actors and agencies, but there is an underlying general premise of gains to one group at the expense or denial of another. Power theory analysis will show that inequalities of race, gender, and age are caused by, and in coordination with, the class-based inequality that prevails under capitalism.

Current inequalities are not minor incidents but rather are structures of capitalism and of the modern world's higher living standards (Allahar & Côté, 1998). Societal norms towards fairness would imply a desire to eliminate all forms of inequality. Though race, gender, and age inequalities may dissolve, class division appears likely to survive under (and perhaps because of) the current system (Allahar & Côté, 1998). There have been many changes to the inequalities based on race, gender and age, but people cannot change their base point (excepting gender reassignment for the moment); while class assignment is more malleable. Both categories will be subjected to a power theory analysis.

Power theory consists of three main propositions and levels of analysis. Put into the context of employee relations, the propositions of power theory state that: (1) owners use firms as a tool to generate and appropriate value; (2) people cannot know all possible outcomes when making decisions (bounded rationality) and thus can create unforeseen effects; and (3) groups (such as unions) seek to influence or alter the generated values

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from firms for their own needs (Perrow, 1986). Analytical processes include "levels of network, the state, and the cultural system" to examine organizational interaction, functions and values (Perrow, 1986, pp. 262-263). While an analysis may offer an explanation for the process of change once an issue of inequality is raised, it is the propositions of power theory that best explain the underlying causes of unequal distribution.

Race, gender, and age inequalities have different causations but share a similar effect. The inequality stems from an independent variable over which the person or group has no control. In all these cases, owners employed people from these groups with wage discrepancies in order to obtain additional surplus value from these disadvantaged workers. These inequalities continued outside of the workplace through discrimination within civic society. The employees' bounded rationality did not enable them to understand that their inequalities were as a result of the masters' actions and pointed blame at their counterparts in and out of the workplace. Groups created through affirmative action coalitions sought to convince employers, the state, and society that inequalities should be reduced, if not removed. The interactions between these different actors at all levels led towards a society that is more egalitarian, but has not eliminated the inequality originally created.

Class division is more fluid, as it possible for people to move between bourgeoisie and proletariat, though most movement is within the same class to a different level of status. Firms employ workers in order to extract surplus value from labour as profits for the owners. To extract the maximum profit, firms will use both direct and unobtrusive controls in an attempt to increase overall productivity. Bounded rationality limits the

predictable outcome. If total rationality existed, employees would reject the controls placed on them (Perrow, 1986). Employees are unable to totally reject the controls, but can modify the value distribution to some degree. These attempts create change and reshape the overall direction and goals of the firm. Employees and owners can respond to each other within formal groups directly attached to the process, such as unions and work councils. Formal groups of general influence, such as sector councils, allow owners to share ideas in order to reshape their processes of production and labour relations. Informal groups of employees create processes for discreet actions, such as slowdowns, to alter the processes of production. Informal groups outside the workplace, such as households and community, may provide a discussion forum to relieve personal dislikes about work and provide alternative actions based on shared experiences.

The continued conflict between groups related to uncontrollable variables detracts from the class division struggle. Allahar and Côté (p. 152) note that "the more individual men and women, black and white, young and old, compete with each other over jobs and wages, the less attention the capitalists and corporate elites receive." The class division is shown by Davies (as cited by Allahar & Côté, 1998) wherein the elites, twenty percent of the population, own seventy percent of the wealth. Yet, the proletarian infighting takes centre stage as continued and changing struggles. It would appear that "instead of fighting one another, a simplistic argument would hold that the 80% segment of the population needs to develop a political consciousness and direct its attention to the practices and lifestyles of the wealthy and comfortable 20% segment" (Allahar & Côté, 1998, p. 151). If people realize that power maintains inequality, they should come to the conclusion that efforts to eliminate sexism, racism and ageism should continue in order to

create a united working class against the larger cause of discrimination. The true equality struggles should be against those with real power and not against fellow proletarians.

Seniority was designed to provide fairness and eliminate discrimination from processes such as promotion and layoff. It could be argued however that seniority systems discriminate against women and continue to put and keep them in an economic disadvantaged position (Dulude, 1995). Systemic discrimination regarding seniority accumulation can appear in (1) ports of entry and (2) periods of absence. These barriers potentially appear from at starting point of obtaining employment and continue throughout the female worker's career. Both areas will be reviewed; however, no weighting or calculation shall be performed for this thesis; suffice to acknowledge that the factors can compound, making the overall effect exponential.

The ability to be hired is the starting point for accumulating seniority. When a person gets hired on a later date than someone else, the later hire starts with a lower seniority value and will, in most cases, have a lower seniority value for their entire working career. Many women are hired later in life. Some of this is statistically explained by more women than men acquiring additional education, and additional delays could be from births and childcare, delaying (re)entry. While there is some statistical evidence to explain some of the starting date differential from men, there is also some potential within the hiring system itself. If the employer fears that a female employee may not be dedicated to the job (with periods of maternity, child and elder care leaves, for example) she may not get hired (Dulude, 1995). This inability to enter the market on the same date as others (with equivalent qualifications) places female employees at a seniority disadvantage once hired at a later date.

Even when women get hired at the same age as men, they face future potential areas of discrimination that will see them lose seniority value compared with their male counterparts. Some seniority accumulation clauses are based on the amount of time worked. Women tend to have more leaves of absence for maternity, child and elder care than men. Women are more likely to be working on a part-time basis. These two types of activity reductions can lead to a lowered seniority value for these women (Dulude, 1995). Some may claim that it is the woman's choice to provide the additional care and not recognize that some of this action is not true choice. As they feel it is based on choice, they are not willing to recompense for lost seniority value at the workplace. However, evidence shows that most of the 'choice' is imposed upon the woman (Armstrong & Armstrong, 1984; Phillips & Phillips, 1983). Thus, the women's loss of seniority value is effectively appropriated by their male counterparts.

To address the two different areas of discrimination: there are separate responses, each with its own social resistance, in order to maintain the status quo. Time lost for providing leaves, could be recognized as a matter of social responsibility and, thus, eligible for accumulation of seniority time as well. Opponents may decry that there has been no time at work, so there should be no accumulation of seniority value. The current traditional compromise is the allowance of seniority as a time value to accumulate, while other values (such as pension) must be purchased by the employee. However, it should also be pointed out that those on leaves also have a reduced ability to acquire this value, and remain behind their coworkers for ongoing seniority accumulation values.

The more difficult area concerns the compensation for delayed hiring dates. The problems are determining the legitimacy and verification of a process that would

necessitate a change to the hiring date, and analyzing how this affects other employees. Proving original discrimination in hiring practices can take years of legal manoeuvring and potentially lengthy trials in order to achieve verification and vindication. However, others have achieved legal recognition that allows for a somewhat smoother process for new claimants. Claims are still challenged by firms that do not want to be identified as unfair employers and bear the negativity it creates. Compounding the acknowledgement issue, which can also be remedied through collective bargaining, is the redress for the disadvantaged employees and how it affects current constituents within the organization.

Two main remedies have been used to address previous inequities and provide protection from layoffs. The first is:

> A two-step system estimating the minimum number of women necessary to create a receptive climate for female workers (a critical mass), and suspending [Last In First Out] and bumping rules to the extent that they would reduce the number of women below that level; and above that level, using proportional layoffs to maintain the same proportion of employees from each sex as before the layoff. (Dulude, 1995, p. 138)

The second possible remedial action is to give women "the average seniority of employees from non-disadvantaged groups" (Dulude, 1995, p. 138). These remedies are justified in an attempt to add strength to the amelioration stemming from equity employment to redress previous discriminatory hiring practices. Proportional seniority clauses ensure that there are enough disadvantaged employees in the workplace to avoid tokenism. Average seniority date clauses attempt to provide immediate restoration of a previously potential hiring date. Both processes have their individual merits, but have a common unresolved issue: how, and if, to compensate current non-disadvantaged groups for the loss of their seniority value through this exchange. People may resist these types

of corrective actions if they see them as an attack on their livelihood, perhaps the greatest value of the working class.

Seniority replaces managerial biases with the bias of longevity. Management, through hiring decisions, still has the ability to select when people start accruing seniority and its value. Past, though sometimes still current, selection practices have led to injustices along the lines of race and gender. Attempts to rectify past inequalities, while noble, are met with resistance from those currently entrenched who are simply trying to maintain their current values attached to seniority. The one true way to ensure total fairness would be to have independent hiring companies place employees into firms and have distributive values meted out by a accountable random distribution method. The likelihood of people giving up potential value without compensation is negligible. The fairest system for dealing with distribution falls back to the adage of respecting one's elders. The simple numerical listing of seniority dates replicates elder appreciation while only appearing to be entirely neutral. Without a radical change of social norms, seniority will remain as the preferred system to distribute value with the appearance of neutrality and fairness.

2.4.4 Social Justice

Seniority is a system used in the workplace to provide increasing value to workers in relation to their tenure while also providing a sense of fairness regarding managerial decisions. Thus, seniority follows the theories of reward allocation and justice principles by giving value to those deserving in a morally acceptable fashion (Fischer & Smith, 2004). It is suggested that the seniority principle should be continued for three main reasons: (1) it ensures the retention and selection of more experienced workers, (2) it

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retains workers who have a higher degree of socialization, and (3) it reduces workplace conflict (Insko et al., 1982). While these reasons are sound, they do more to recognize the adoption of seniority by management instead of employees' push for seniority.

The reward allocation of seniority describes two principles. It is differential whereas workers are not equal because they have their individualized seniority ranking. However it is also egalitarian because all workers can gain greater seniority value by staying on with their organization (Fischer & Smith, 2004). These divergent principles create personal and subjective valuations of seniority independently from (and in addition to) economically objective reward allocations. Thus, two people can receive identical benefits and perceive them as having differing value. This mirrors the desires for better self-worth and a better society which at times may create internal conflict and contradiction.

As workers depend on wages to survive, they have a vested interest in securing and maintaining gainful employment. Seniority is closely tied to this interest. Some courts regard the opportunity to earn a living akin to a property right, so it could be argued that seniority should be afforded the same rights of arising with ownership (Zook, 1953). Thus, layoff is seen as the greatest loss of property: the ability to provide for oneself. Firms decide among differential principles of the individual worker's current productivity, personal needs, and past contribution while workers strive for a norm of equality that disregards personal characteristics (Engelstad, 1998). These four norms can be used with varied enforcement leading to six types of combinatory seniority clauses: (1) strict seniority, (2) minimum qualification, (3) minimum seniority, (4) minimum

seniority difference, (5) relatively equal, and (6) trade-off (Gosseries, 2004). This

enforces Englestad's (p. 105) interpretation that seniority functions as a "catch-all norm".

One of the more arduous tasks is determining how to measure fairness and

equality. One way would be a maximin egalitarian approach. This means "that the rules

of social organization should be such that the involuntarily worst off people under those

rules are better off than the involuntarily worst off under any alternative set of rules"

(Gosseries, 2004, p. 280). This approach goes beyond known discriminations, such as

gender and age, to consider practices that allocate specific goods; an example of this

would be employment benefits derived from seniority distribution. The difficulty in

measuring seniority distribution is even more serious when attempts are made to quantify

such qualitative values. Unlike wage-seniority relationships, which can be measured and

analyzed using absolute variables, other relationships are not as clear. A value typically

considered for measurement is the firm's operational efficiency. This is explained as the

employer's desire to reduce shirking and quitting, and expanded through 'deferred

compensation' models of holding back part of workers' actual earnings compared to their

actual production output (Lazear, 1979). The ambiguities leave us only with the ability to

"believe that seniority privileges bring some significant efficiency benefits" (Gosseries,

2004, p. 302). It is unclear whether the relative seniority distribution method of values is

the fairest or if any other method would be fairer.

2.4.5 Social Value

Valuation of relative seniority requires an initial self-determination of satisfaction

with the potentially valued correlates this factor delivers. Life-satisfaction measurement

has been done by other researchers in many areas, and has been defined in terms such as

subjective well being, happiness, and satisfaction with life (Diener, Emmons, Larsen, & Griffin, 1985). Satisfaction measurement has been proven to be reliable for multiple socio-demographic variables, and is acceptable for countries with differing welfare and income levels (Veenhoven, 1996). Yet, it does not provide an explanation as to the *causes* of people's self-reported satisfaction levels.

Some of the underlying differences can be related to causes beyond our own influence. These primary causal relations derive from birth through upbringing into adulthood. Genetics can provide a predisposition to responding to certain life events in different manners, and family upbringing events (such as adoption or break-up) will shape individuals in different ways before they determine their personal satisfaction (when able to do so) in their adult life (Layard, 2005). It must be recognized that life events affect one's perceptive anchor point, but that this anchor variation will be minimal and widely distributed throughout the population.

Other variables exist but are deemed to have minimal effect on one's satisfaction. Satisfaction with life appears stable over one's lifetime, even while considering external ever-changing influences such as income and health (Easterlin, 2001). It has also been explained as a U-shaped curve with a downward trend owing to increasingly unmet desires in early adulthood followed by an upward trend once some desires are met through later years (Oswald, 1997). Some of the curvature has been explained by different aspiration levels (Stroebe & Stroebe, 1987) and more time for people to adjust to their life conditions (Argyle, 1987).

Gender is a characteristic that appears to be relevant in numerous subject areas. When examining its relation to satisfaction, Layard (2005) determines that there is no

difference in satisfaction levels by solely by gender but it does appear that women are more satisfied once other socio-demographic factors are controlled for using multiple regression analysis. Inglehart (1990) and White (1992) determine that there is a gender difference but that the difference is small. This 'satisfaction gap' has also been declining over time (Frey & Stutzer, 2002). Even with varied determinations as to the amount of differential, there is consensus that females experience higher satisfaction than males.

Stable relations, through marriage or live-in partnerships, lead to greater satisfaction. Throughout different countries and time periods, married people have reported greater satisfaction than their single, divorced, and widowed counterparts (Diener, Gohm, Suh, & Oishi, 2000). A selection effect is also possible, in that those more satisfied with life are more likely to be married. However, there is a stronger association to the benefits from marriage itself as it provides additional self-esteem of being accepted by another person and removes suffering attributable to loneliness (Frey & Stutzer, 2002).

Helliwell (2003) found no direct relationship between education and satisfaction. There is also evidence that there is some intra-regional correlations with education and satisfaction, but it is unclear whether this is a result of an absolute or a relative level of education (Di Tella, MacCulloch, & Oswald, 2003). However, Becker (1975) recognizes that there is high correlation between education and income. With an expectation of higher income, those with higher education can feel a greater loss of personal satisfaction when they suffer unemployment (A. E. Clark & Oswald, 1994). With education being a high correlate of income, it may be more relevant to examine income effects.

Clark and Oswald (1996) determine that the income-satisfaction relationship relies on the comparison of income levels of others around individuals and, holding income constant, that the previous education-satisfaction relationship is strongly declining. Evidence that satisfaction does not rise directly and continuously with income is an enigma to be researched (Easterlin, 2001). This supports analysis of satisfaction levels remaining constant once income is adjusted for inflation (Duncan, 1975). While income has some effect on satisfaction, it also has to be recognized that personal determination of satisfaction changes over time.

Habit formation changes personal preferences, and this can cause variations in individual aspiration levels (Pollak, 1970). Aspiration levels are distributed along a continuum of perceptual influences, intellectual assessments, and affective factors such as people's hopes and fears (Irwin, 1944). It is normally expected that, as one's income rises, his or her satisfaction will increase as well. However, it is also possible that, as income rises, new aspiration levels arise that causes overall satisfaction to grow at a slower rate to the point of stagnation or even decrease (Frey & Stutzer, 2002). Those with lower income adjust their utility schedule to their surroundings to raise their relative satisfaction level (at least temporarily), while those with higher income aspire for more and can see lowered relative satisfaction instead of the absolute increases derived from their economic gain (Inglehart, 1990). Thus, it is these tempering influences that account for an almost negligible relationship between income and satisfaction. In fact, socioeconomic status could have a negative relationship with satisfaction (Clemente & Sauer, 1976).

Living conditions, as an objective measure, has a small effect on the subjective measurement of satisfaction (Saris, 2001). Home ownership can be defined as one such measure. However, there is the surrounding neighbourhood influence that can negatively effect an individual's social isolation (Leo, Shaw, Gibbons, & Goff, 1998). Interaction of local neighbourhood decay with home ownership can lead to diverging effects, leading to inconclusive measurements of satisfaction. The variables have either positive or negative influences along with different multitudes of strength. These conflicting and coordinated effects can make a true objective measurement of satisfaction more difficult.

2.5 Economic Assessment

Societal norms of rewarding eldership predict and require increased value to senior employees. Employers, perhaps through some coercion, have adapted this model but created their own security by delivering relative increases for tenure through absolute decreases for junior workers. As seniority increases and workers receive increased wages and benefits, their marginal utility from an additional benefit unit should decrease. This would be reflected in a reduced demand for the same benefits than what should normally be expected. Part of the debate over personal satisfaction is the present value measurement of gains achieved but delivered in the future. An integrated approach should include a review of deferred wages, utilization, and present valuation equations. This type of analysis will provide the framework to show how seniority, from both an absolute and relative measurement, provides value.

2.5.1 Future Earnings

Employees want to achieve greater wages and benefits, collectively defined as earnings, as they continue in their firm-specific career. Employers accept this payment structure even to the point of paying some workers at rates higher than their individual rates of productive value. While part of the rationale for this structure may come from employee agitation, including unionization, firms also recognize it as a fundamental exchange of decreased current earnings for increased future earnings. Workers will subjectively view this process as increased value attached to their seniority. Firms objectively deem it as a zero-sum payment structure that allows the ability to filter out unproductive workers and retain productive workers under the guise of loyalty, though only to the point of current overpayments not being greater than previous underpayments.

Figure 1. Earnings vs. Productivity

Age, Seniority (Years)
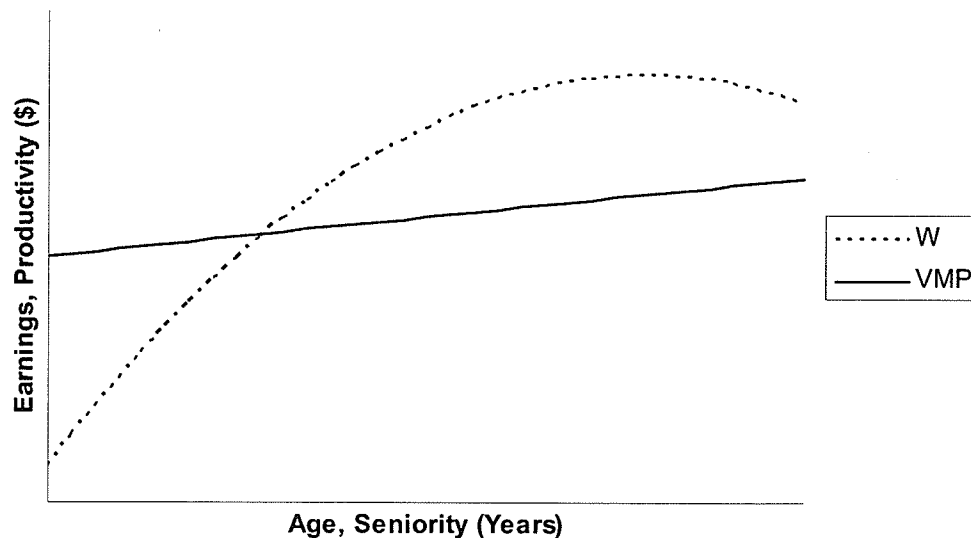
There are variations of the earnings and productivity graph to explain various specific applications of human capital theory to training costs (Becker, 1975) combined with worker and firm response (Benjamin, Gunderson, & Riddell, 2001). The most

generic application, depicted in Figure 1, compares workers' annual earnings (W) to the

firm's annual value of marginal productivity (VMP) over the career of the worker. In the

most economic efficient application, workers' earnings would equal their value of

marginal product (W = VMP) throughout their career. However, the recognized

compensation method is an underpayment (W < VMP) early in the career with an

overpayment (W > VMP) later. Firms may consider this varied compensation model to be

more efficient in the long-run of a worker's career when attempting to include other

variables that the firm deems valuable but difficult to measure.

Workers experience wage increases directly related to their seniority and this

relationship becomes more relevant over time (Altonji & Shakotko, 1987; Altonji &

Williams, 1997). As worker productivity increases over time, there is a natural tendency

for the firm to continue their employment and correspondingly increase its compensation

in its effort to retain them. Retention will rely on the workers' satisfaction with their job

and related earnings, on the one hand, and the firm's satisfaction with worker

productivity on the other (Carmichael, 1983b). A firm, underpaying workers at the initial

period, has an opportunity to measure productivity and remove underperformers with

minimal loss; this then followed by a period of overcompensation in recognition for the

initial period up to the point of total career earnings equalling the value of productivity, at

which time it will look for an effective way of terminating the employment contract

instead of continued overpayment (Lazear, 1979).

Workers have some ability to induce fair wages. They know their true ability of

maximum effort and their mobility capacity to quit if so desired (Smith, 2006). While

firms attempt to extract this information, it is these ambiguous measurements that allow

workers some sense of authority over their earnings and retention. However, once some

seniority is accrued, along with its increased earnings, workers are more inclined to

remain even if their satisfaction is not adequately met in their current job (Donaldson &

Eaton, 1976). In addition to increased earnings related to absolute seniority, workers will

achieve some upward movement in their relative seniority. Security from layoff, better

vacation selection and more choice over specific work functions are some of the items

that will provide internal value to the worker. As they would lose these satisfying values

if they were to move to another firm and have their relative seniority reduced to entry

level again, workers will have a desire to maintain current employment unless there is a

larger monetary reward to offset these subjective values. In essence, money can supplant

happiness but must also address the "bond" of underpayment compared to performance

outlaid during the earlier years of the employment term. Thus, workers have more value

invested with their current employer through the accrual of relative seniority than simply

the objective measurement of earnings to years of service.

2.5.2 Diminished Utility

Workers and firms both have their relation to the supply and demand curves

associated to earnings. Workers will supply labour-power at a determined wage rate but

only to a certain quantity as the value of additional work is overshadowed by the lost

utility of leisure. Firms will employ labour at set wage rates but will desire less labour as

the additional cost approaches the marginal revenues from production. When seniority

increases, workers receive more of the same compensatory items they currently have and

will appreciate them to a lesser degree than the previous unit. Firms mete out differential

benefits as a method to reward desired behaviour and retain productive workers

(Schwind, Das, & Wagar, 2005) while experiencing reducing marginal revenue and productivity, which creates a situation where they experience decreased marginal profit. While firms and workers have divergent motivations with regards to production and compensation, they both deal with decreasing marginalization (profit or utility) throughout the employment relationship.

Marginal utility decreases more prominently with items correlated with relative seniority than those with absolute seniority. Wage increases can be attached to service years, primarily though uplifts after probation, and are easily measured as absolute income. Pension benefits accrued annually provide increasing value as compounding accumulation moves workers closer to retirement, with defined benefit plans possibly giving more value in later years as there is less time to accrue interest from the current year contribution into the plan to meet the benefit ascribed (Freeman & Medoff, 1984). Workers will also typically receive increased annual vacation allotments with more service, including but not limited to, where applicable, legislatively required increases. These types of earnings can be quantified, if not as a direct dollar amount then as a percent of salary. Thus, when combined with a measurable amount of years through absolute seniority, it is somewhat easier to determine the increased values for increased absolute seniority.

When measuring items that correlate with relative seniority, the utility measurement is not as clear but also has defining points that can be determined. Workers may be allotted increased amounts of vacation but their relative seniority determines when they can take the time off. Transfers to other departments, functions and/or shifts can require workers to have more seniority than other applicants in order to receive the

position (Lee, 2004). Though there may be some economic rationale, it is widely recognized that those with greater relative seniority are less susceptible to potential layoff and temporary loss of employment (Carmichael, 1983a). As staff size changes through attrition and acquisition, these variables affect workers' relative seniority ranking as shown in Equation 1 on page 7. Not only is there varied utility by individual, there is also the possibility of changing relative seniority ranking, and the associated utility, for each worker.

Decreasing marginal utility germane to relative seniority comes not from receiving more of an item but rather from achieving a selective result closer to the worker's eventual satisfaction outcome. Workers can continue to receive increased relative seniority but may already possess their desired outcome for certain items of benefit. Vacation selection can shift from a period of undesired time to somewhat desirable to exact satisfaction of selection before a person's career finishes. Similarly, the transfer process is complete once workers are placed in the specific job or schedule they want. Their ability to transfer has no further meaning unless a new desire arises from within. As workers climb the relative seniority list, their likelihood of layoff diminishes, especially if the total number of employees beneath them increases. At some point their individualized realistic possibility for layoff is nil, save for a complete collapse or transfer of the firm. Thus, as different levels of satisficing values are achieved, workers can increase their utility level expectations and potentially reduce their current relative satisfaction.

Figure 2. Aspiration & Adaptation Changes to Utility & Satisfaction Levels
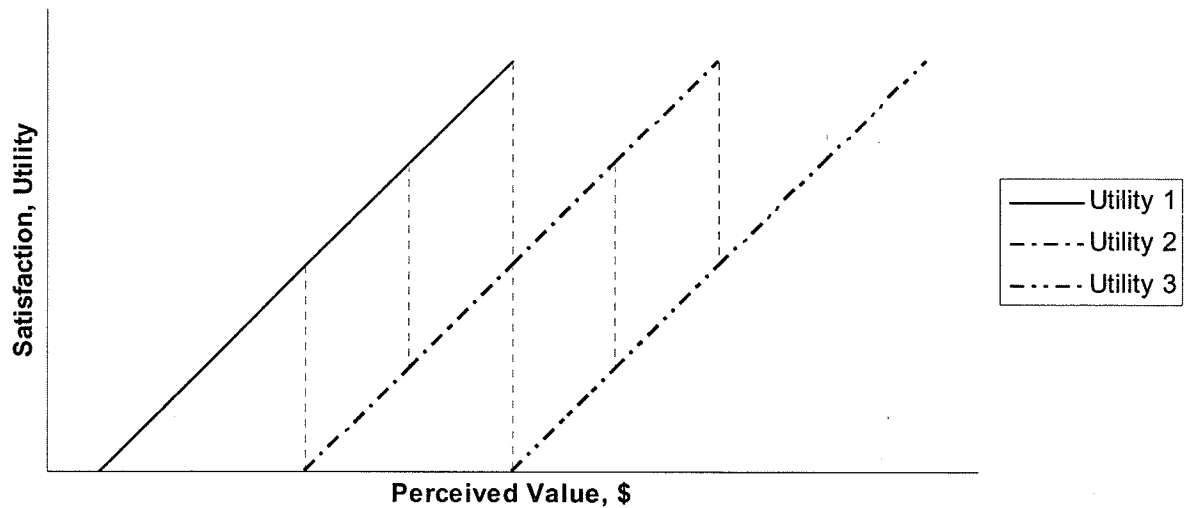
As shown in Figure 2, people would start on one utility line and move upwards in satisfaction as they receive additional items they value. At certain points of perceived value accumulation, people will aspire to a higher utility line. Correspondent with this movement, people will either aspire to the higher utility line along with their current received value and have a downward shift in their satisfaction level or adapt to their new utility line through a simultaneous lateral shift to the new line with the increased value of the newly acquired item (Frey & Stutzer, 2002). These non-positive shifts correspond with the theory of decreased marginal utility generally expressed in economic analysis.

People's marginal utility decreases as they acquire additional units of desired items. Similarly, as people lose portions of their desired items, their marginal dissatisfaction increases. Workers can have their relative seniority ranking lowered by workforce reduction through layoff. As they come closer to the bottom of the seniority list, their job security declines. They can move from a feeling of almost total security to one of total fear. During this transition, workers could also experience less desirable

vacation selection and being forced to work the very shifts they years ago but moved away from as they were deemed less desirable.

Increased accumulation of desired items leads to two possible directional movements regarding satisfaction. Similarly, a loss of desired items has two options: (1) a downward movement along the current utility line, or (2) a horizontal inward shift to a lower utility curve. Thus, in times of economic downturn in a firm, workers can experience individualized losses and in turn have a desire to ameliorate their personal value situation without regard to the value gained through collective effort and workforce size. This self-preservation attempt of individualized values erodes the bases of collective strength.

2.5.3 Present Value Determination

Satisfaction is determined in the context of current social and economic demographics. While most factors are relative instead of absolute, they can be quantified but must be measured in the present context. Even if there is a possible utility gain or loss in the future, not all people are able to determine the future impact or adequately rate these movements in a statistically accurate method (Frey & Stutzer, 2007). It is further recognized that workers overestimate the value of future earnings to a point of desiring an increasing wage scale that may have less total value than a decreasing wage scale with greater initial payouts (Loewenstein & Sicherman, 1991). This anomaly of individual assessment leads to a digression between workers' subjective measurement and economists' objective analysis.

Most compensation items are realized by workers in the current year they are bestowed by the firm. One specific exception, but highly contentious for the earnings

formula, is pensions as the benefit is delivered at some future date. Defined benefit plans provide a predetermined rate of payout per year of service, with the investment risk borne by the firm, and defined contribution plans have a known investment with the future retirement amount unknown and payout risk borne by the worker (Canada, Department of Finance, 2005). Forty percent of Canadian workers are involved in an occupational pension plan and, of those participants, eighty percent have a defined benefit plan (Tamagno, 2006). Seventy percent of current retiree households receive an occupational pension, and these pensions account for one-third of senior citizen aggregate income, which could be a possible explanation for the dramatic decrease in the percentage of senior citizens earning less than the low-income rate (Tamagno, 2006). Firms are also concerned about pensions, not only that it helps retain employees, but there are potential investment risk options. It is recognized that workers with pensions are more productive than those without, and those with defined benefit plans are even more productive than those under defined contribution plans (Even & Macpherson, 2003). Valuation can be determined in different manners dependant on the decisive realization argument one wants to pursue (Draeger, 2006; Draeger, 2007a). Present value calculation differs based on the type of pension plan.

Equation 3. Future Value for Defined Contribution Pension Plan Analysis

$$Value.DCPension = Contribution \times (1 + i)^{Re\,mainingYears}$$

Defined contribution plans require some consistent form of contribution that attracts interest for a combined amount that is exchanged for an annuity at the time of retirement. The annual contribution rate is calculated, as shown in Equation 3, as an exit amount or future value. As interest creates a larger amount with more time to compound,

the absolute amount for a specific calendar year measurement decreases each year for the senior worker as they have fewer active years of service remaining.

Equation 4. Present Value for Defined Benefit Pension Plan Analysis

$$Value.DBPension = \frac{FutureAmount}{(1+i)^{\mathrm{Re}\,miningYears}}$$

Defined benefit plans provide an established consistent future amount for each year served by the worker. The annual benefit rate is calculated, as shown in Equation 4, as a present value of a consistently equal payout for all retirement years. As senior workers have fewer active years of service remaining (and this is reflected in the denominator), their current year pension benefit acquisition increases each year. As workers move closer to retirement, they are more inclined to pay attention to their retirement accounts. Under a defined benefit plan, they see an increasing value for their greatest leisure goal of retirement. Under a defined contribution plan, the values are decreasing, and it is too late to find a better investment vehicle.

Junior workers do not immediately see the future results of compounding interest for retirement benefits under a defined contribution plan. They also see a relatively lower present value of benefits under a defined benefit plan. Under both forms of analysis, there is an increasing subjective valuation by senior workers (Freeman & Medoff, 1984). Economists may determine the absolute value of pensions based on assumptions of means, medians, and continued employment trends. Workers will reflect on their social context and create a subjective value of the current year accumulation as the measurement method.

2.5.4 Seniority as an Economic Value

There are multiple factors influencing the total compensation package. Some of these factors, such as gender, geographic location, job type, and unionization, account for earning differences between workers and do not change within the specific job location (K. G. Abraham & Farber, 1987; C. Beattie & Spencer, 1971; Chaykowski & Slotsve, 2002; Renaud, 1998). Once employed at their job site, a worker would consider the previously stated factors likened to exogenous static variables towards the employee's valuation equation. This coincides with findings that experience and skill may account for some increased employment earnings but that the greatest factor is positional tenure within a firm (Dustmann & Meghir, 2005). It is found that compensation increases are better explained by the human capital theory at firms' lower hierarchical positions; higher positional increases are better explained with deferred-wage models (Flabbi & Ichino, 2001). As seniority is attached to service years at an individual firm (excluding the craft union models for the moment), the number of influential factors is reduced to those that are still relevant once a worker is employed within the specific firm under its specific compensation policies and industrial organization contexts.

Economic value for labour, generally expressed as wages and benefits, is quantifiable for the firm as a cost to generate potential profit. To a worker, income is valued for its ability to provide the ability to obtain desired goods. As the level of income rises, there is an inherent increase in consumption of either more goods or previously unattainable luxurious items. Both types of acquisition should put people on higher utility curves, but it should be noted that derived satisfaction may not be solely from the increased income. Absolute income may bring a higher utility but it is posited that

satisfaction comes more so from relative income (Frank, 2007). As most workers are within a job classification at a firm that provides the same absolute earnings, the explanation for varied utility or satisfaction levels must stem from some other variables that account for the relative value.

Workers within a union arrangement could be seen as a collective entity, ensuring the mean or median desires of the majority are met. Even though workers within a firm may provide similar labour inputs and receive similar compensation, they are heterogeneous with regards to their actual effort and satisfaction levels. This cohesive approach of egalitarianism ignores the conflicts of individualistic behaviours, desires, and norms that actually create specific satisfaction and utility curves (Zamagni, 2007). In reference to standard economic theories, all other things are *not* equal regarding worker satisfaction. In essence, the evaluation shifts to the worker and it is the influential factors of the specific firm that must be deemed as equal to recognize the personal factors that determine the satisfaction levels from seniority.

Equation 5. Value of Compensation

$$V_{t,p,n,m} = a + bSA_t + cSR_p + xAG_n + yFS_m$$

Compensation packages have explicit and implicit values. These values are derived from variables that can be measured absolutely. Total earnings value, V, comes from absolute years, relative seniority, age, and family status. The general method for calculation, shown in Equation 5, covers these personal variables. Absolute seniority, SA, is measured in t years. Relative seniority, SR, is measured as a percentage p ranking. Age, AG, is measure in n years and differs from the years measured with absolute seniority. Family status, FS, has a factorial m measurement to cover nominal variables of marital status, dependant children, and gender, which has an effect of satisfaction levels relevant

to marital status (Draeger, 2007b). The intercept, a, is the entry employment value where new hires have no absolute nor relative seniority ($t, p = 0$).

Prior research (Dustmann & Meghir, 2005; Renaud, 1998; Abraham & Farber, 1987) discusses how to derive the absolute seniority value coefficient (b) from empirical evidence such as contracts and human resource policies. The relative seniority value coefficient (c) can be determined using valuation formulae or by deriving the potentially recognized value through a direct declaration format such as an employee survey. Relative seniority value coefficient is an index derived of many potential valued items that are dependant on the specific work location. The absolute and relative seniority coefficients account for the majority of the total deemed value received by workers in their earnings function.

The age value coefficient (x) is partially determined through actuarial formulae in the costs of benefits that rely on age and the individual attempts to obtain similar benefits outside of the employment relationship, such as life insurance. As one's age increases, individual insurance premiums would increase, and the personal value would likewise increase. The family status value coefficient (y) depends on the personal situations for each individual that either provide value or do not. For example, spousal coverage for health plans only provide value to those workers who are married and child coverage in dental plans only provide value to workers with dependent children. It is the summation of these different value items that will have varied relevance to the coefficient calculations.

2.6 Labour Studies Critique

Seniority is an integrated part of employee relations. It is implicit and codified in collective agreements for unionized workplaces. Non-unionized workplaces also use seniority as a deciding factor, but only when it suits the employer. This codification and socialization arises in the context of promoting harmonious labour relations, but could be construed as a limitation towards workers and their unions. Not as formalized is how seniority systems will distribute the values derived from the workplace. Recognizing that there are various options available, it is possible that the selection of one specific system could be discriminatory against a minority set of workers. Not only is the general process potentially discriminatory, there is evidence that the system of seniority neutrality has actually created further discrimination against previously disadvantaged groups. Even with these potential discriminatory systems in place, there is an overall acceptance that the latent issues are overcome by the manifest process of removing managerial arbitrariness and replacing it with a mediated arbitrariness purported as neutrality.

2.6.1 Collective Bargaining and Seniority Codification

Firms have ceded some authority with the acceptance and implementation of seniority provisions. Workers prefer a system that more closely follows the social norms they experience in their community outside of the workplace. The removal of managerial arbitrariness allows workers some ability to plan their life activities with some certainty about the firm's response and also be interpreted as some reduction in alienation or increase in empowerment. Unions mandate seniority provision as one of the preliminary bargained items and promote their power to achieve these provisions when organizing workers to the point that there is further social acceptance of seniority as a desired item.

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The state obliges this social desire by codifying limited mandatory seniority recognition in labour relations law. This codification and enforcement of the seniority principle was part of the larger omnibus task of creating a legal collective bargaining compromise, which eliminated the option for strikes and lockouts during the life of an agreement. The state coerced firms into ceding some power with the promise of reduced labour unrest, which delivered greater power over the operational aspect of the workplace, increased stability and increased profits. Thus, both unions and firms can feel victorious in their respective gains while workers may actually lose with a gain of only a socialized norm at the expense over their greatest power: the ability to collectively remove their labour power at will.

Unions fought for seniority language as one of the foremost important articles to include in any new contract. Before labour relations laws, there was also a necessity for unions to bargain their own existence for recognition by firms. This dual track provided impetus for collectivism to emerge in the form of solidarity. Unions fighting for recognition promised the seniority principle to engage and persuade workers that collective activism could provide individual gains while legitimizing the union entity. The state's interaction, or perhaps interference, with the unregulated negotiation process created a stabilized arena where union recognition was immediately established in an attempt to reduce workplace disruptions (McInnis, 2002). There was also acquiescence to providing the seniority principle to unionized workers. Labour laws mandate seniority lists for layoff and recall into collective agreements even if not negotiated during the formal process (*The Labour Relations Act*, 1987, ss. 12, 13, 56 & 57). While seniority was codified for unionized workers, there is no similar inclusion for laws governing

workers without a union. For example, *The Employment Standards Code* (1998) of Manitoba contains no seniority references. Thus, the codification of seniority only for workers in a collective agreement provides a legitimization of unions as the only avenue for workers to receive the values that seniority principles purport to deliver.

With the seniority principle codified, unions are able to promote this gain of a social norm as a reason for people to organize. The establishment of seniority clauses provides pragmatic legitimacy from workers to unions for providing something of value but also an initial surge of moral legitimacy as the principles of fairness and elder respect are delivered within the seniority system (Chaison & Bigelow, 2002). This primary value attainment requires unions to prove their worthiness by pursuing further gains favoured by their members. Members are then left to measure union effectiveness based on achievement of goals, but there is also a requirement for unions to effectively determine what the goals should be and communicate their progress efficiently in a manner that workers can realize as matching their own wishes (P. F. Clark, 2000). Workers measure union effectiveness based on expansion of workplace democracy and valued gains, while the state and firms measure effectiveness based on economic efficiency compared to reduced industrial conflict (Davidov, 2004). Unions must maintain a perceived accounting of membership views and wants; otherwise, workers would not continue to see democracy and redistribution being meted and delivered properly, leading to a declining legitimacy for union relevance (Levesque, Murray, & Le Queux, 2005). Even non-unionized firms recognize seniority principles to the extent that some apply seniority as a factor in cases of promotion and layoff even without a legal requirement to do so (Mills, 1985). Unions may lay claim to establishing seniority principles at a majority of

firms, unionized or not. Workers, achieving some sense of this value, do not necessarily

bestow cognitive legitimacy to unions in recognition of this gain. As more employers,

even without legislative requirement, adopt the social norm of seniority usage, it is more

plausible to view union deliverance of seniority benefits as redundant to the point of

reduced effectiveness.

Collective agreements codify seniority provisions. There are merits in using

seniority principles to the extent that neither unions nor firms have looked to remove

seniority rights and replace them with other ways of distribution and decision making

(Mitchem, 1949). That is not to say there are not modifications to include items such as

skill and ability into the method of measurement, but the underlying principle remains

with seniority. As any further pressure from firms regarding seniority would be seen as

an attack on worker democratic and distribution rights, there is little discussion on exact

implications of seniority regarding the potential best deliverance of value. Likewise,

without worker engagement over a greater review of seniority principles, unions are loath

to contemplate changes. Current seniority principles of distribution remain static.

2.6.2 Value Distribution among Workers through Seniority

Workers perceive value from their seniority and thus value their seniority. This

differs from the tautological statement that senior workers value seniority because they

are senior. The main thrust for the difference is that there has to be a value established for

seniority prior to the ability to desire, or value, the derived benefits. The definition of

value expands from standard economic variant to include non-market values into

something broader. Value will be defined as the capacity of an item to satisfy a need or

provide a benefit, either tangible or intangible, which can include those that positively

contribute to quality of life or prestige to a person and must be perceived as such (Haksever, Chaganti, & Cook, 2004). Seniority provides the ability to improve one's quality of life, thus providing a benefit as perceived by workers. Different firms will provide differing levels of seniority benefits as there is no one theory applicable for distribution methods (Margolis, 1995a). As such, it is also posited that workers may make individual employment decisions based on the varied returns to seniority supplied by firms (Margolis, 1995b). Workers establish their perception through their personal influences and will therefore have different levels of value attached to seniority.

Seniority rules are used when some form of selection regarding finite resources is necessary. When used in this context, seniority replaces managerial arbitrariness for distribution decisions and is more commonly referred to as equity, or fairness. Workers may have varying ideas about what equity or fairness involves but they still desire it over third-party determination. Workers are able to determine their position on the seniority list, defined through relative seniority, and have the capacity to determine the potential effects of their position. Junior workers can expect less job security, more undesirable vacation selection, and fewer opportunities for promotion. Senior workers enjoy greater job security, desirable vacation selections, and more promotion potential. Standard employment career trends indicate that senior workers will retire and will be replaced with new hires at the bottom of the seniority list. Thus, there is some expectation that workers will progress upward through the seniority list and see their relative seniority, and its associated benefits, increase with continued employment in the firm. Unforeseen events such as sector decline with layoffs and corporate mergers could upset this socialized expectation for upward mobility by a restatement of seniority list to include the

loss or gain of workers and may actually have workers lose relative seniority and its corresponding values (Idson & Valletta, 1996; Kahn, 1955). Under normal employment models, then, workers would have the stability of knowing where they stood on the seniority list, along with its potential repercussions, while being free from the uncertainty of working under an arbitrary decision model of managerial discretion. The actual act of movement away from an unknown to a known determination process can be considered valuable by itself.

Figure 3. Random Allocation vs. Relative Seniority Value Distribution
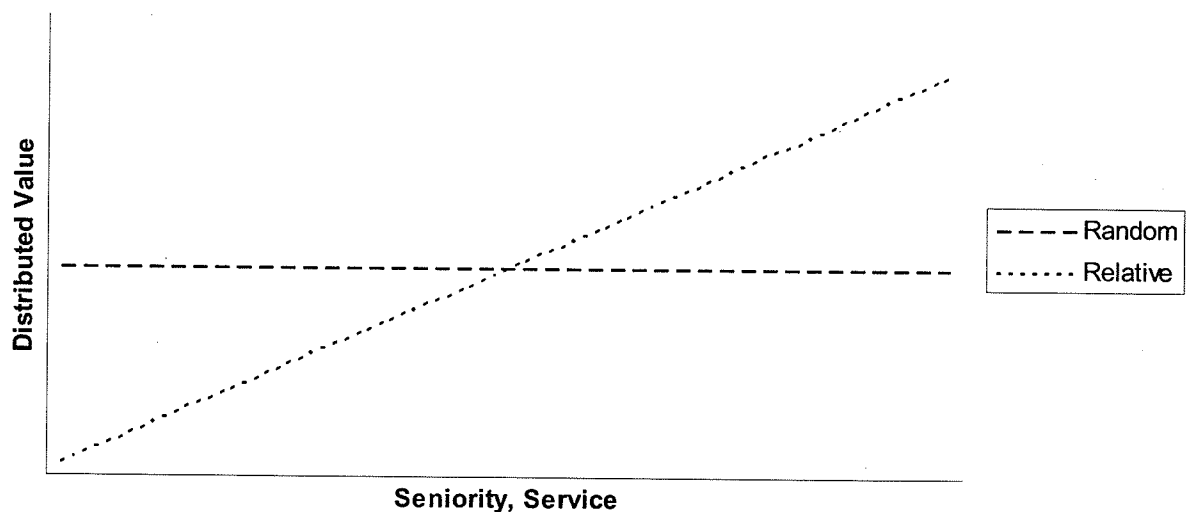
Unions chose to move from arbitrary distribution to seniority distribution, enforced as a social norm, over other possible methods. Even with the apparent fairer system it is still simply a choice of distribution. If each worker was to be treated equally, the fairest system would be one of random allocation wherein a truly neutral annual lottery system would determine selection ranking, thus giving all workers equal opportunity that results in a continuous average value over their career. Figure 3 shows how random allocation would mete equal value continually over a career, where relative seniority modifies value distribution from a lower amount early on to a greater amount as

tenure increases. The relative seniority model supplies greater value and prestige to workers as they remain with one firm, thus seniority itself can become the equivalent of a status symbol (C. Gersuny, 1984). This status achievement plus the increased benefit value attached to the specific firm can both account for the lowered number of quits for senior workers in compared to the average quit rate in the country (Ross, 1958). Unions rationalize their choosing seniority for distribution over alternative distribution methods (Hild, 2004). The decision to choose the seniority model now leads to a different analysis than that of managerial arbitrariness. While relative seniority distribution compared to random distribution appears similar to the economic productivity model shown in Figure 1 on page 37, the lower and higher values are decided by the group of workers themselves. In essence, the workforce accepts the practice of a 'bond' from junior workers. In reality, senior workers receive an overpayment at the expense of their junior workmates in the form of an underpayment.

Relative seniority, when directly compared to random distribution, could be seen as a zero-sum transfer of value but only if all workers started and finished their careers within the same firm. Labour mobility is reduced through the union's action of employing relative seniority as a means for distributing value over a random allocation system that would deliver equality of opportunity during each year a person works at a specific firm. Workers remain with a firm under the promise of future increased benefits and as they continue working begin to demand greater benefits attached to their seniority.

Higher expectations as workers gain seniority creates a system of reasonably assumed current and future values attached to seniority. Encased within these expectations is the requirement of the union to deliver value to its members. Union

leaders must provide varied benefits that satisfy the individual utilities of a heterogeneous workforce. This is to be achieved in a manner that gives the perception of group fairness while providing individualized gains to the point where at the majority of workers feel satisfied enough to provide a positive ratification of the collective agreement (Martin & Berthiaume, 1995). This process is the essence of the median voter theory (to achieve electoral success, one must meet or exceed the desires of the median voter) as related to labour relations and worker interaction (Grossman, 1983). While it is possible to create large returns for all members where the median voter model becomes irrelevant (Draeger, 2007a), for most cases the union has a limited resource to distribute and it must do so in a manner that assures that the majority of members will accept the proposed distribution method. In order to provide immediate satisfaction, unions modify the distribution of relative seniority value in such a manner that the majority of workers perceive that they receive greater than the mean amount of value and thus support this overall distribution model. The necessity of providing greater value under the median voter application solidifies the relative seniority distribution method. Workers previously promised greater values with increased seniority, now exert influence through ratification demanding these greater values, which further entrenches relative seniority as the *de facto* standard for industrial relations processes such as collective bargaining.

Union leaders who deliver collectively bargained values to the members are part of, and elected by, the membership. Leaders differ from the rest of membership in their greater likelihood to become dually, if not unilaterally, committed to the union rather than to the firm (Magenau, Martin, & Peterson, 1988). This underlying attitude may make them better suited for union leadership positions and the task of providing the best

results for the membership, but also places them in a different context of sharing the actual goals and aims of the individual workers who still may identify more with the firm. In North America, it is almost exactly the same workers who ratify collective agreements as elect their union leaders (Ishikawa & Lawrence, 2005).[1] This puts union leaders in a conflicted position. While they may be considered the best candidates for the position, they also have a self-impetus for continued election into the position. To maintain their position they may have to bargain for values that are desired by the majority of workers (who have a great identification with the firm), even if leaders recognize that whatever is bargained may not actually be in the workers' best interest. Workers have their self-actualizing goals put forward, and pressure the leaders to achieve the individualized desires of each heterogeneous worker via his and her ability to vote at ratification and election times. Workers who expect returns on their seniority have demanded this value from their leaders and back it up with the ability to vote out any contract or leader that does not deliver on this promise, even if the original goal or removal from leadership is actually detrimental to the workers from a neutral and analytical perspective.

2.6.4 Seniority: Equality or Discriminatory?

Workers acquire gains from seniority in similar manner. While there traditionally is a model of underpayment initially being gradually replaced with an overpayment, the model applies almost consistently to each worker. However, it only applies to people who are actually hired into a firm. Barriers of entry, and thus denial of value accumulation, can be based on bona fide occupational requirements but have also been discriminatory actions, whether they are direct or indirect. When workers are barred entry based on

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[1] Collective bargaining coverage is approximately two percent greater than union membership density in North America, compared to between ten and fifty percent (or more) greater in Europe.

discrimination it creates and perpetuates an inequitable distribution of earnings value and social status. Even once discrimination is identified, previous accumulation of seniority value and current workers' desire to keep their gains does impede some potential avenues for amelioration and restitution.

Workplace discrimination falls mainly into sexism and racism. While ageism is another examined area, it is felt to be more of an experience-building process that places younger workers into different jobs at the onset of their careers (Bryson, Gomex, Gunderson, & Meltz, 2005). Another observed distinction is that racism in the United State applies more to blacks and Latinos while in Canada the analysis is for aboriginals and people with disabilities (Sheppard, 1984). It is not the purpose of this thesis to fully analyze the past history and reasons behind discrimination, as it recognized as an unfortunate reality of society. Current actions to acknowledge these wrongs and redress attempts fall under the category of affirmative action. Affirmative action is a social response in an attempt to undo the effects of discrimination. It is more than simply stopping the discrimination (as disadvantaged groups may already be far behind the rest of society) and attempts to accelerate equalization (as long-run plans do not help the disadvantaged individual compete equally today) while acknowledging the eagerness of these groups to achieve results (Wexler, 1972). While affirmative action plans attempt to accelerate equality in society, the effect in the workplace is a forced adjustment of valuable resources, including seniority values, away from current employees. These employees, from their personal viewpoint and context, see this exchange as a loss of value given to other peoples. The personal loss of value contrast with the social desire for

equality, creating personal conflict that can be incorrectly directed against those disadvantaged people attempting to realize what current workers already enjoy.

Modifying hiring practices to ensure disadvantaged people obtain better employment is one step towards an equitable society, but these workers tend to be at the bottom of the seniority list and therefore disproportionately placed with the lowered values of being a junior worker within the firm. Further, if disadvantaged groups are at or near the bottom of a seniority list, they will also be the first ones to be laid off and suffer the greatest loss through denial of continued wages. One potential remedy is to supplement disadvantaged groups with additional seniority units in order to place these workers in a more equitable position that would have been the case if the systemic discrimination of delayed hiring had never occurred (Dulude, 1995; Schachter, 1983). Another possibility is the use of work-sharing agreements wherein all or most employees reduce their hours of work instead of layoffs, which is more of a North American phenomenon compared to European countries (Lee, 2004). Work-sharing does not place the burden of responsibility on the firm for justification of reduction combined with compensatory action. A critique of this system notes that the employees bear the burden (Elkiss, 1980) and that disadvantaged groups are less able to incur any such pay loss because of traditionally lower wages (Sheppard, 1984). A further analysis of previous layoffs provides for a different understanding of the extent and interpretation of discrimination theories. When controlling for other variables, two points become apparent: (1) females account for the significant amount of disproportionate layoff compared to the rest of disadvantaged groups; and (2) the disproportionate layoff ratio is only relevant to nonunionised workers while unionized workplaces experienced no such

disproportionate layoff of disadvantaged groups (Singh & Reid, 1998). However, analysis of union density purports that disadvantaged groups are underrepresented in unionized workplaces (Kelley, 1982). So while unions might be willing to equalize disadvantaged groups with regards to protections from layoff, these groups are still disadvantaged as they are unable to achieve union membership to the extent of other workers.

Unions create greater equalization among all represented workers, including those from disadvantaged groups, through the continued codification, and therefore social norm entrenchment, of the seniority principle. Union density decline over the past few decades reduces the effectiveness of unions, which in turn effects the strength of seniority entrenchment and the reduction of this principle as a norm for workers (C. Gersuny, 1987). Union decline can be considered from processes such as: (1) a shift to casual employment relationships; (2) a move towards outsourcing and privatization of public sector jobs; (3) an increase of two-tier wage scales bargained into collective agreements; and (4) a perception of declining union effectiveness and relevancy. Modifications to the employment relationship include an increase in part-time labour and the growth of the temporary employee agencies, which are both areas deemed tougher to organize into unions because of perceived worker transience and therefore cause a decrease in the overall union coverage (Duffy, Glenday, & Pupo, 1997; C. Gersuny, 1987; Shalla, 2003). Legislation that gave public sector workers the ability to organize came decades after similar legislation allowing private sector unionization was enacted (Northrup & Bloom, 1963; Woods, 1973) and resulted in a large increase in total union density within North America (Lipset & Meltz, 2004). While union density within the public sector remains

relatively high, the variety of job types are being reduced through privatization and outsourcing to third party contractors in some sections. Contractors have their temporary staffing agreements, which are reliant on the continued successful bidding of future contracts with the state, and therefore are similar to casual employees not beholden to one employer to the point of fighting for unionization. The continued and strengthened ability to move work between different companies creates more difficult situation for unions.

Unions have had to respond to the reorganization of work practices by employers, in some instances resorting to concessionary bargaining in an effort to keep currently unionized employees as members with a collective agreement. One such response has included the increase of two-tier wage provisions, which place new employees into a greatly reduced pay scale compared to current workers' wages (C. Gersuny, 1987). Unions may feel that this type of concession may be necessary in order to save troubled firms; evidence shows that there is not a significant economic gain for such companies after the two-tier system comes into place (Thomas & Kleiner, 1992). A further critique notes that two-tier systems burden newly hired workers unfairly, undermine the seniority principle, and will eventually split the bargaining unit ("Two-tier wage discrimination and the duty of fair representation," 1985). These types of union response lead critics to note that current actions make labour not look like a labour movement at all (Fantasia & Voss, 2004). Some have gone further, stating the current union response shows a lack of commitment to workers and that the movement is already moribund (Tasini, 1995). One union response mirrors corporate actions through mergers of smaller unions in an attempt to reduce duplicative costs and grow into a critical mass for effectiveness. However, effective unions rely on effective members, with the emphasis needed on individual

members and their attitudes rather than the financial gains derived from such merger actions (Baraldi, Sverke, & Chaison, 2006; P. F. Clark, 2000; Sverke, Chaison, & Sjöberg, 2004). Further action and calls for union revitalization have been (and can be) attempted in many different ways (Hurd & Behrens, 2003), but the greater concern is that if something significant is not accomplished soon there will no longer be a critical mass in which to maintain legitimacy (Rose & Chaison, 2001). If there is not a greater push for a revitalized union movement to reclaim its relevancy, unions could cease to have legitimacy. Without legitimacy, and its corresponding codification, the social norm of seniority within employment relationships is in peril.

2.7 Objective Measurement of Relative Seniority Items

Items that make up the earnings profile can be measured both in an objective and subjective manner. Employees may feel underrated or overpaid depending on their heterogeneous reference frames, but are compensated on the quantifiable measurement of money. Human resource professionals may compare compensation amounts between strata within a corporation and between companies with a similar job analysis (Schwind et al., 2005) but report and recruit based on the neutral measurement of wage levels. It becomes significant to create a neutral assessment of compensation items that can be described in a monetary manner.

The following is an analytical construction of items that are part of the total compensation package but are derived in part through relative seniority and were included in the worker survey. Formulae are derived based on the objective criteria wherein seniority is excluded from the equation. In essence it represents the values created when seniority, whether it be codified or socially instilled, is absent from

employment decisions. Thus, the resulting methods are neutral measurements than can be contrasted later to the subjective ratings established by employees for the same items.

2.7.1 Vacation

The measurement of value regarding vacation is similar to the marginal value calculation of microeconomics, whereas previous macro-measurements have required adjustment to account for bias attributable to the inclusion of statutory holidays (Galarneau, Maynard, & Lee, 2005). Employers may place vacation value into the production equation. Where two workers are paid the same annual salary, but receive different amounts of vacation time, the employer might divide the total salary by the actual weeks at work to determine production cost and thus consider the increased cost to be the vacation value.[2]

Employees do not determine vacation value as a mathematical estimation of production cost, but rather place value to paid time away from the workplace. Valuation is derived through the recognition of having one less week to work compared to the number of workweeks still to be accounted for. The first week is divided by 52 weeks; the second week is divided by 51 weeks, and so forth. These marginal values are summed to create an ongoing total value. Finally, the total value is divided by the number of vacation weeks to determine the average value per week of vacation. A listing of the generic calculations is shown in Table 4 through ten weeks of vacation.

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[2] For example, a worker earning $50,000 with two weeks vacation has a production cost of $50,000/50 or $1,000 per week. Another worker, also earning $50,000 but with four weeks vacation has a production cost of $50,000/48 or $1,041.67 per week. Employers could argue that the additional $41.67 weekly production cost for two additional vacation weeks is equivalent to a value of 2.08% per week of vacation compared to the worker with two weeks ($41.67/$1,000/2).

Table 4. Values of Weekly Vacation Allotment as a Percent of Salary

Vacation Weeks	Marginal Value	Total Value	Average Value
1	1.92	1.92	1.92
2	1.96	3.88	1.94
3	2.00	5.88	1.96
4	2.04	7.92	1.98
5	2.08	10.01	2.00
6	2.13	12.13	2.02
7	2.17	14.31	2.04
8	2.22	16.53	2.07
9	2.27	18.80	2.09
10	2.33	21.13	2.11

Equation 6. Objective Vacation Value (Percent of Salary)

$$TotalVacationValue = 0.022 + 1.883 * Weeks + 0.023 * Weeks^2$$

It is of interest to note the current legal and statistical position, both as marginal and average value, of the accepted calculation of two percent per vacation week.[3] Instead of measuring by weeks, some calculations use individual days compared to an average calculation of 260 potential work days in a year (Freeman & Medoff, 1984).[4] The marginal value of the first and second vacation weeks is below this standard and it is only at the third week where the standard measurement is reached. In addition, it not until a worker reaches five weeks of vacation that the average value attains the standard measurement for all weeks. Most workers reach three weeks of vacation after five years of service and have no codified expectation to accrue additional weeks (*The Employment Standards Code*, 1998, s. 34). Therefore, that most workers never receive the actual value as proscribed as a standard is another possible form of exploitation by the firm, perhaps

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[3] *The Employment Standards Code*, 1998, s.39(2) states that employers are required to provide compensation at a rate of 2% of annual wages for each week of vacation entitlement.
[4] Statistics Canada reduces the 260 work days by 10 general holidays to achieve 250 days for its measurements. This equates to 50 weeks in a year and 1 week would objectively be worth two percent.

supported by the state. Unionized workplaces provide a greater amount of vacation (Freeman & Medoff, 1984) and thus require a comparison to the collective agreement.

Vacation allotment increases occur on varied specified anniversaries. Workers with different absolute seniority can have the same vacation allotment as an objective value. This objective value is expressed in Equation 6 above[5], which is the calculation of total value express in Table 4. It is the vacation selection process, using relative seniority, which distributes the specific dates and its corresponding subjective value. The surveyed workers receive 3 weeks after 3 years, 4 weeks after 10 years, 5 weeks after 18 years, and 6 weeks after 33 years. As such, they will receive more vacation than the majority of Canadian workers as an ongoing distribution with increases at·episodic milestones. However, workers who receive the same allotment of vacation due to their absolute seniority will not receive the same desired assignment of vacation days as their relative seniority varies.

2.7.2 Job Classification

People perform different tasks and will correspondingly receive varied levels of compensation. Workers will receive increased earnings from employers based on management's job evaluation in comparison with other jobs within society, similar jobs within the specific industry, or structured hierarchy within a firm (Benjamin et al., 2001; Doeringer & Piore, 1971; Schwind et al., 2005). Just as employers use different contexts to determine the earnings schedule, workers will use these same contexts plus the overall labour market outlook to determine their acceptance, continuation, or exit from specific employment opportunities (Smith, 2006). Many contexts are used in individual worker

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[5] t-values 2.545**, 521.406****, 71.050**** (adj.R^2 = 1.000****)

evaluation; it is therefore more difficult to determine the specific measurement that would best yield the neutral economic model of value attached to job classification.

Workers who are classified in a specific job category can compare their earnings value to either the legislated minimum wage, the average wage in the community, the industrial wage (when appropriate), and other job categories within their current place of employment. The context they chose for comparison will depend on the relevance of the comparable job opportunity relative to their skills, accreditation, and opportunity. The recognized beneficial value is the positive surplus earnings compared to the earnings of the next best employment opportunity, in essence the "opportunity benefit" (the mirror image of "opportunity cost") of current employment. The calculation for each specific context, and thus the beneficial value, is straightforward. The arduous task is determining the most precise model for true measurement.

Equation 7. Valuation of Classification (Percent of Salary)

$$ClassificationGain = \frac{(CurrentWage - ComparativeWage)}{CurrentWage}$$

Once the subjective valuation has been given by workers toward their classification, their reference point can be determined. By reducing a worker's current wage by the percentage expressed in a survey response, the resultant amount becomes their reference point. Known is the provincial minimum wage of $8.00 (*Employment Standards Regulation*, 2007, s. 11b), a provincial average wage of $18.65 and a manufacturing industry average wage of $15.95 (Statistics Canada, 2007a). The size of the calculated response determines the context, with larger percentages indicating minimum wage and smaller ones indicating provincial or industrial averages. The measurement model, stated in Equation 7, shows how a worker implicitly creates the

objective model. Measurement error can arise in the self-reporting of personal salary amounts (Lefranc, 2003). Other error arises in the error in gender and educational skill wage distribution, wherein overeducated males are overcompensated and undereducated are significantly underpaid (Vahey, 2000). For each specific job there is also a necessity to recognize extraneous and heterogeneous variables influencing the subjective valuation.

2.7.3 Shift Scheduling

Employees have to integrate their work schedules as part of their overall social existence along with their leisure and family activities. The act of working, including transit back and forth, consumes a major part of people's lives. The standard full-time employment relationship model quantifies this analysis. Both calculations (either 260 days of 365 in a year or 5 days of 7 in a week) indicate that 71% of days involve employment matters. After excluding the average of 8.1 hours of sleep per day, the full-time shift of eight hours plus 0.6 hours of commuting account for 54% of waking time during each workday (Statistics Canada, 2007b). The overall hours involved with employment account for 38.6% of all waking hours over the week when including days off, which is a substantial portion of the employee's time and the greatest time consumption from all possible activities. Coordination of the specific time periods for work through schedules and shifts for individual workers, as well for their families and friends, can significantly alter the individual worker's availability to pursue other enjoyable activities in a satisfactory manner.

Better shift patterns can lead to increased availability for other pursuits, whether it is social, family or leisure. There is a substantial correlation between the time available for external activities and shift satisfaction (Zedeck, Jackson, & Summers, 1983). Equal

shift lengths but at varied times of day does not provide equal satisfaction to workers. Even if they are working on different shift patterns themselves, there is a consistent belief that daytime shifts appear to go by quicker and allow for better sleep patterns (Khaleque & Rahman, 1984). In addition, Khaleque and Rahman's study found that afternoon and night shifts disrupted or restricted family and social lives, curtailed leisure activities and created difficulties for meeting with friends. Workers should aspire toward the societal norms of working during the daytime and from Monday through Friday. Thus, working during desired daytime hours can be considered a high benefit while working during other hours of the day (usually defined as desirable times for social interaction) would be considered as a lower benefit.

Conformity methods are required to have people accept practices that are outside their normative beliefs. Rotational shift patterns that do not conform to the social norm of working time find that these workers have a 41% reduction in preferred work hours and a 35% reduction in preferred leisure time (Baker, Roach, Ferguson, & Dawson, 2003). Some compensation strategies provide shift premiums for 'abnormal' shift patterns that addresses the personal social cost and as an incentive to retain workers on these patterns. Compensation methodology of the shift premium would be determined with the acknowledgement that 40 hours of weekly hours covers personal needs throughout 168 total hours in the week. Each hour of life represents a 'life wage' 23.8% (40/168) of actual hourly earnings and the 35% factor for leisure time loss equates to 8% (23.8*0.35) per hour. Therefore, there would be justification for workers to demand an eight percent premium when working outside the social working standard hours. Similarly, those who

are able to achieve a day shift should place a value of eight percent less any premiums currently lost due to the opportunity to acquire the socially desired shift.

Another strategy involves firms that use different classifications each with its own pay rates and no shift premiums. Workers may elect to change jobs to an other one with higher pay but on later shifts and determine the additional salary compensates for the social cost of losing leisure time during desirable hours. Later in their career, workers may move within the same job type to a day shift without any change to salary and determine this to be a benefit through gaining desired leisure hours. Thus, personal improvements are intermittently achieved through either monetary or social compensation.

2.7.4 Job Security

The value of job security is a measurement of potential risk and loss. It is the measurement of what happens when workers lose their current job as well as of the likelihood of this event to happen. The factors must be reviewed at the level of the firm. Comparison between firms would also have to take into considerations that firm size has a correlation with job tenure and layoff probability, with larger firms having lower layoff probability and correspondingly workers with longer tenure (Morissette, Zhang, & Frenette, 2007; Rebitzer, 1986). The likelihood factor is further broken down to account for a random assignment of layoff and assignment through a seniority based system. The formulae are derived from historical data instead of hypothesized expectations. Thus it becomes possible to calculate an objective value for job security to compare against the intrinsic and subjective valuation placed by workers.

Equation 8. Earnings Loss from Layoff (Five Year Extrapolation, Percent of Salary)

$$EarningLoss = 19\% * \frac{1 - \frac{1}{(1+0.045)^5}}{0.045}$$

Workers who lose their job have an immediate substantial reduction in their earnings. They will mitigate their losses through two avenues: Employment Insurance and obtaining alternate employment. Employment Insurance is only a temporary measure and does not fully replace previous earnings. Laid-off workers experience an average 19% annual earnings reduction over the next five years without any significant fluctuation to indicate restoration to previous earnings levels (Morissette et al., 2007). Workers also experience a reduced earnings return to tenure with their new employment (Kletzer, 1989). Implementing a present value of annuity calculation (using the annual reduction for the payout and an interest rate of 4.5%), as shown in Equation 8, provides the loss of earnings to be equivalent to 83.4% of the workers' current salary.

The probability of being laid off must also be determined and applied along with the earnings loss amount in order to provide relevant measurement. Recent statistical information of permanent layoffs was analyzed and includes the labour unemployment rate as a partial correlate ($R^2 = 0.66$) in the statistically significant formula: PLrate = 4.0837 + 0.3317*Urate (Picot, Lin, & Pyper, 1997)[6]. Inserting the unemployment rate for Winnipeg of 4.7% (Statistics Canada, 2007c) would suggest that there is a 5.64% probability of being laid off during any calendar year. Coordinating the layoff probability formula with the earning loss formula from Equation 8 (5.64% layoff probability with an earnings loss equivalent to 83.4% of salary), suggests that security from layoff has an objective value of 4.7% of annual salary.

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[6] PLrate = Probability of Layoff; Urate = Unemployment Rate

Table 5. Layoff Probability (Percent) based on Relative Seniority Ranking

Relative Seniority	Layoff Probability	Relative Seniority	Layoff Probability
01	39.59	35	4.03
05	34.92	40	3.40
10	29.07	45	2.76
15	23.23	50	2.13
20	17.39	55	1.50
25	11.55	60	0.87
30	5.70	61+	0.74

The application of seniority with layoff decisions will modify the standard objective calculation by the two areas of size of layoff and relative seniority. Analysis of recent years account for an average overall layoff probability of 7.9%, which includes a 1.58% chance of mass layoff (defined as involving more than 30% of the workers in a firm) and a 0.74% chance of job loss due to firm closure (Morissette et al., 2007). Those workers with 61% or greater seniority rank (i.e. double the mass layoff percentage) will be designated as only subject to job loss under a firm closure. Two goal-seek calculations were used to achieve the individual layoff probabilities by seniority rank, with a sample of results shown in Table 5. The first calculation determined there is a 0.1265% layoff probability increase for each relative seniority percentage drop between 60 and 31 (reflecting the difference between firm closure and mass layoff to achieve the 1.58% average). The second calculation determined there is a 1.1686% layoff probability increase for each relative seniority percentage drop between 30 and 1 (reflecting the difference between mass layoffs with firm closures and overall layoff to achieve the 7.9% average).

Figure 4. Job Protection Distribution using Relative Seniority
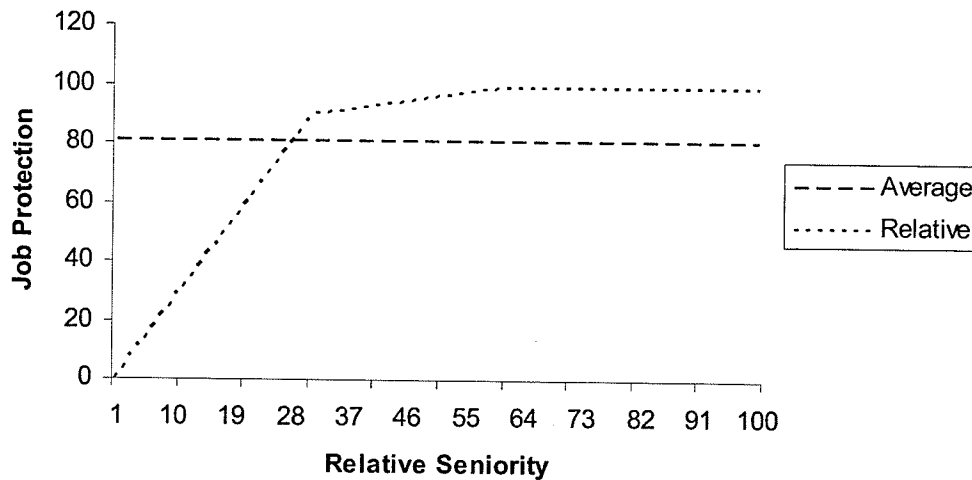
Relative seniority redistributes the layoff probability greater or lower than the average calculation. This redistribution method also follows from the North American application of using layoffs instead of overall work hour adjustment, having the effect of making a job more valuable of the workers' career (Ritter & Taylor, 1998). If a worker with the lowest seniority rank has a 39.59% layoff probability and the workers at the higher end have a 0.74% chance owing to firm closure, it could be restated that the lowest ranked person has 0% job protection and the higher end has a 99.26% protection rate. Analysis determines the job protection intercept to be 101.151 with a negative 2.555 slope based on layoff probability. This slope of potential value is compared to the average 7.9% layoff probability, which yields an annual 80.97% job protection potential. The comparison of job protection distribution, shown in Figure 4, shows a transfer of value from junior employees to senior employees. This is not based on the objective measurement of years of service, previously shown in Figure 3 on page 54, but rather from the subjective measurement of relative seniority. Thus it becomes apparent that relative seniority provides value in addition to and simultaneous with absolute seniority.

Equation 9. Objective Value of Job Security using Relative Seniority

$$JobSecurityValue = \left(-2.304 + 0.208 * SR - 0.001 * SR^2\right) * EarningLoss$$

Table 6. Layoff Protection Gains and Job Security Value with Relative Seniority

Relative Seniority	Layoff Protection Gain	Job Security Value (%)
05	0.00	0.000
10	0.00	0.000
15	0.00	0.493
20	0.00	1.214
25	0.00	1.894
30	2.20	2.532
35	3.87	3.128
40	4.50	3.683
45	5.14	4.196
50	5.77	4.667
55	6.40	5.097
60	7.03	5.484
65	7.16	5.830
70	7.16	6.135
75	7.16	6.398
80	7.16	6.619
85	7.16	6.798
90	7.16	6.936
95	7.16	7.031
100	7.16	7.086

While workers with lower relative seniority may determine that they are losing value compared to the average randomized model, they will also determine an increase in value as they increase their relative seniority. They can actualize that there are a number of workers either above or below themselves more easily than to determine an abstract average value. Thus, it is important to determine an objective model to evaluate job protection value using relative seniority. A comparative gain against the average value model while treating negative values as zero creates the dependent variable to be combined with the 83.4% earnings loss attributed with being laid off. The determined model[7] is stated above. A sample listing, shown in Table 6, includes the layoff protection

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[7] t-values -8.470****, 16.713****, -9.250**** (adj. $R^2 = 0.915****$)

gain and associated objective value of job protection (as percent of salary, zeroes replacing negative values).

The establishment of an applicable formula allows for the comparison a statistically objective measurement to the personal subjective determination expressed by workers. The average valuation using the equation for all seniority ranks is 4.12% of salary, which compares positively to the previous calculation of 4.7% using the generic randomized model. Thus, the proposed equation can be used effectively for the objective measurement model as the benchmark for subjective determinations and comparisons.

2.7.5 Transfer and Promotion within a Firm

Relative seniority is a factor used in the managerial decision regarding to whom promotions should be awarded. Workers will utilize their relative seniority to achieve another position within the firm which better satisfies their desires, whether they are monetary, shift type, or status among peers. Thus, workers perceive their seniority to deliver value in some form of satisfying mechanism. This subjective measurement of social norm and anticipation is the item that requires an objective analysis.

Equation 10. Value of Promotion with Higher Pay

$$TransferGainHigherPay = \frac{(CurrentWage - previousWage)}{CurrentWage}$$

One possible desire for promotion is higher remuneration. The difference in pay rates could be categorized as an opportunity gain. Instead of using a generic comparative wage, as was done for classification gain determination stated above in Equation 7 on page 66, the comparative variable is the wage of the previous position. This method, expressed in Equation 10 above, shows the portion of classification gain that is attributable to promotion for higher compensatory reasons.

Equation 11. Value of Promotion with Lower Shift Premium

$$TransferGainLowerShiftRate = \frac{(CurrentWage - previousWage - previousShiftRate)}{CurrentWage}$$

Equation 12. Value of Promotion with Higher Shift Premium

$$TransferGainHigherShiftRate = \frac{(CurrentWage + CurrentShiftRate - previousWage)}{CurrentWage}$$

Equation 13. Value of Promotion, Integrative Approach

$$TransferGain = \frac{|\Delta Wage| + |\Delta ShiftRate|}{Wage_{current}}$$

Another possible promotion aspiration is to obtain a different shift that is more suitable to the worker's lifestyle or provides appropriate compensation. This could result in either obtaining or dropping a shift premium. Equation 11 shows the expression if a worker chooses to drop a shift premium to obtain a more socially standard shift. Conversely, Equation 12 shows the expression if a worker chooses to move to a less socially desired shift but receives a higher shift premium. As each worker's specific reason is unknown, the best approximation would be to combine the attributes of all three models into one generic model. Equation 13 shows the integrative expression.

Equation 14. Labour Mobility Potential owing to Internal Promotion (Ratio)

$$LabourMobilityPotential = \frac{TransferGain}{ClassificationGain}$$

The resultant value from promotion or transfer in Equation 13 would cover all transfers or promotions whether there are wage changes, shift premium changes, or both. It also allows for possible reduced wages or premiums in order to obtain a more desirable position even if requires a reduction in earnings. The resultant value should be lower than the value of classification expressed in Equation 7. This is owing to the fact that the job specific gains as related to another position within a firm are only part of the expectation when compared to an external reference point. Workers deciding between staying at their

current employment or exiting the firm decide based on their labour mobility potential (as shown in Equation 14), which could be viewed as a ratio between gains from internal promotion and gains from maintaining current employment.

A ratio closer to one is explained by the jobs within the firm are extremely similar to the external job market comparison. A ratio closer to zero shows that the majority of value is derived from the shift differentials between the current firm and the external labour market. Thus, the probability of labour mobility is correspondent to the ratio of promotion and transfer gains. Previous predictions of labour mobility measurement uncertainty (Smith, 2006) can be partly addressed through this ratio method. The higher the ratio, the more likely the worker will compare potential gains from promotion to the external job market whereas a lower ratio indicates a greater likelihood to compare gains from a classification change to the external job market. If workers rely on the promotion, which is derived from relative seniority, for the majority of gain then they will be less likely to change firms as their relative seniority is reduced with any such employer modification. Thus, it is more the effect of relative seniority, rather than tenure, which keeps workers with their current employer.

2.7.6 Maintenance of Current Employment

Workers experience a significant reduction of earnings when they lose their current employment. Workers will also lose any value that is provided in both the objective and relative measurements of seniority, which is derived through tenure with the firm. As such, workers may consider maintaining employment with their current employer at a lower rated classification instead of attempting to obtain totally independent and new employment at another firm or different career. This model requires

the capacity to move other junior employees out of their position, leaving them to deal with the impact of the layoff instead, in a process commonly referred to as bumping. This process provides value to the worker as a subset of the job security function, stated in Equation 9 above on page 73. This method of job protection value only applies where there is the capacity to bump out other workers and the layoff size is small enough that the worker would be able to maintain employment at the new position.

Equation 15. Value Loss through Bumping (Percent of Salary)

$$EarningsLoss_{Bump} = \frac{\left(Wage_{Current} - Wage_{Bump}\right)}{Wage_{Current}}$$

The formula for the calculation of bumping value requires a preceding step before culmination of the final determination. Workers would determine what their loss would be with the acceptance of the lower-rated position. This requires the knowledge of the new position's pay rate and the difference between their current pay rate. This would be compared to their current pay rate as a percentage decrease in earning potential, as shown in Equation 15. The result varies depending if the new position involves a different pay rate, shift premium, or simply accepting another position that involves the same pay rate as the worker's current job. In essence, there is a potential for the earnings loss derived from bumping a junior employee to be zero or a earnings gain from an increased shift premium, but recognized as a valued loss for working a less desirable shift pattern. Even if this earnings gain materialized, it would be considered as a loss from a more desired schedule but compensated with a higher premium.

Equation 16. Value derived from Bumping (Part of Job Protection Value)

$$BumpingValue = JobSecurityValue - EarningsLoss_{Bump}$$

Once the value loss from bumping is determined, the seniority value gain for the bumping process is possible. The formula is derived from deducting the earnings loss of

bumping from the job security value, shown in Equation 16. The remainder is the actual value derived from bumping, which is a portion of the overall protection from job loss. Thus the smaller the loss of earnings from bumping, the greater the portion of job security is derived from bumping.

The value from bumping has the capacity to show how workers envision their relative seniority and attachment to the firm. The earnings loss from bumping could be greater than the attributed value of job security, which would indicate the worker is better off taking the layoff instead of staying with the firm under the new position acquired through the bumping process. Workers who choose to remain with the firm under this circumstance are indicating that there are other intrinsic values for remaining. This could include emotional stability from staying within the same social organization of current workmates. As well, this would indicate that seniority, which would be reset to zero with employment at another firm, provides value that is part of the worker decision to remain even when the objective measurement indicates the better choice is to leave. Worker determination of bumping value should be lower than job security value. Any variations from these objective measurements add to the hidden potential of relative seniority value.

3. Workers and Processes

A survey was used to elicit worker responses of their valuation of workplace practices that involve relative seniority. The survey respondents are all workers within one Winnipeg manufacturing firm under a collective agreement and include a seniority list. The survey analysis must occur at the firm level as the seniority list is used only with these workers, and workers do not have seniority transferred to other firms if they quit. This fact contrasts most research regarding workplaces that focus on absolute seniority to determine value. In the latter type of objective measurement for tenure, a worker with, for example, five years in one firm would have the same value as another worker also with five years but with another firm. However, with this thesis' research of relative seniority, both workers could have five years tenure but one could be considered senior and the other junior in their respective firms. Thus it is important to analyze the potential value-producing processes within a single firm when researching relative seniority.

The collective agreement determines that the firm has 27 different job classifications across 16 departments and operates three shifts. It also combines the job classifications into 13 different pay rates and 10 different occupational groups. These multiple divisions, while established for either deskilling or specialization purposes, also create issues over promotions, job security, shift preferences and appropriate compensation. Relative seniority is a factor to all of these workplace variables.

Workflow is through assembly or production lines where parts are created, put together in different component buildings, and brought together for final assembly. This is done through multiple shifts and start times are staggered in order to provide a "just-in-time" delivery for each part of the production cycle. Workers can decide to do different

jobs, with their corresponding pay rates, but are only able to obtain higher paying jobs through promotion, in which seniority is a factor. In some cases, there are aptitude tests that can deny access to some of the more skill-dependent jobs. Another decision for workers to take is what shift they want to work, which is decided by seniority of those workers within a specific classification. Workers may be forced to choose between their current job with a preferred shift (usually daytime) and a higher paying job while working on a less desirable shift. Thus, there is compensation for shifts other than daytime with a premium added to their base pay rate.

Job security is derived from relative seniority. If there is a reduction, it is the junior workers who are laid off. The firm has the capacity to arrange a layoff by specific occupational group, department, or shift, which can be seen as disregarding seniority benefits for job security. However, the affected workers have the capacity to bump junior employees who were originally not touched. The originally laid-off workers have to choose between losing their current job and schedule or switching to a different position, which may involve less pay, or keeping their current job but working on a less desirable shift. If they choose another position in the workplace, the next worker has to deal with the same decisions but with fewer available positions occupied by junior workers. At some point there are no 'lower' positions available for bumping and that worker is the one which is actually laid off. Thus, a corporate decision to reduce one worker has the potential to affect many workers' lives through bumping until it actually affects a worker to deal with the aspects of losing their job. Workers having to make this difficult decision between working at a less desirable position and losing their job may blame the incoming senior worker rather than the firm's original decision to reduce staff.

4. Research Methods

After consultation with and approval by the union representatives for the workers in the firm, a survey delivery method was established. Multiple notices were given to the workers in an attempt to ensure greater participation rates (Dillman, 2000; Weisberg, 2005). A notice was first placed in the workplace advising of an upcoming survey and signifying the importance of participation. This was followed by placing 783 survey packages into the workers' individual mail slots. A follow-up notice was posted encouraging participation. This process, not only good survey practice, allowed for multiple indirect contacts with the respondents while respecting the privacy laws of employee information distribution and maintaining worker anonymity.

The survey, with a full copy provided in the appendices, contained 60 questions on three double-sided pages and included a self-addressed return envelope. Questions were split into three categories and the design allowed for ease of use and readability to encourage high user response rates (Sanchez, 1992). The overall design of questions incorporated a consistent 5-point scale for user response and focused on the effective use of question wording (Taylor, 1990). The final question was an open-ended form, with space allotted allowing for personal qualitative responses. This addition allows for a more rounded analysis with the combination of quantitative and qualitative research methods (Onwuegbuzie & Leech, 2005).

The first section asks workers to state their satisfaction regarding different parts of their employment relationship with a follow-up question to determine the workers' valuation of these items. For each of the six aspects of seniority (vacation, job

classification, schedule, job security, transfer ability, and bumping ability) the respondents were asked, "How satisfied are you with your [aspect]?" with a five point scale ranging from very dissatisfied to very satisfied. The satisfaction questions provide one measure of interaction with personal valuations (Diener et al., 1985; Veenhoven, 1996). These were followed up by an open-ended question, "What is the value, as a percent of salary, you would place to your [aspect]?" with a space to provide their answer. The follow-up questions allow for an establishment of how workers derive their own subjective compensation for items traditionally without monetary value (A. E. Clark & Oswald, 1996; Kaufman, 2002). They also were queried with "For [aspect], please indicate its importance to you" with a five-point scale ranging from 'Not at all important' to 'Very important' within a grid system. This section provided data for the three facets (value, satisfaction, and importance) to the six aspects of seniority.

The middle section of the survey focused on questions to create indexes from the combination of multiple responses. Subsets of previous academic surveys were used to determine the relevant sections of an index for union satisfaction (Fiorito, Gallagher, & Fukami, 1988) by asking 7 questions with a five-point scale from strongly disagree to strongly agree. There were another 19 questions in this section, also with the same five-point scale, that were used to determine an index for union commitment of the workers (Gordon, Philpot, Burt, Thompson, & Spiller, 1980). More specifically, the union commitment areas of loyalty, responsibility, and willingness to work were examined as they have been shown to be more significant influences (Sverke & Kuruvilla, 1995).

The final section asks traditional demographic questions to determine if there is any correlation between social and economic influences that affect other areas of society.

The question regarding birth date was converted into a current age. Similarly, the question regarding start date was converted into current tenure, or absolute seniority. The three questions asking how many employees in the workplace, the worker's position on the list, and is this position from the top or bottom of the list allowed for the calculation of relative seniority. This calculation was now comparable to the general question of how senior a person was (five-point scale from very junior to very senior) as well to an analysis of the seniority list ranking based on the amount of tenure.

Thirty-two surveys were returned for a response rate of just over four percent of the workforce. This is within currently experienced response ranges but below the average return rates for mail surveys (Boser & Green, 1997). It is possible that workers felt that demographic questions about their workplace could identify them and declined to return the survey. It is also possible that workers are more sensitive to seniority issues than originally thought, with a survey being a potential source of aggravation (L. Dias, personal communication, February 3, 2007). However, there were enough valid answers to achieve significance for most regression analyses. It is also interesting to the note how the responses arrived. Instead of the traditional pattern of a large volume appearing almost immediately and then being followed by a significant drop, the returns constantly appeared over a three-week period. These anomalies compared to academically determined response norms may be of interest to research methodology majors, and are reported here to note its interest.

Work value can be dissected into varied subsets, and the relevant independent variables can also be as varied. There is also the influence of the analyst's position, whether he or she is a neutral observer or one of the respondents. The analysis can be

further broken down into their significant sections. An objective, or neutral, determination of workplace value is performed by the researcher in an effort to establish some sense of potential response. Respondents provide a form of self-determination in their relative seniority ranking that may be more accurate for additional research analysis. Regression analysis is used to determine the significant independent variables, their interaction with workplace values, and the variance from a neutral determination. Finally, the relative variables are placed into different related categories for a broader discussion of the application of workplace values derived through relative seniority.

5. Data Analysis

5.1 Correlations

Pearson correlations between pairs of variables derived from the survey responses are presented in Table 7 and Table 8. The 31 variables can be grouped as worker valuation items (items 1-18), union effectiveness (items 19-20), and demographics (items 21-31). For reporting the degree of correlation, *low* is defined as less than .350, *moderate* being greater than .350 while less than .700, and *high* being those above. Each of the six valuation facets had low correlations between their particular value, satisfaction and importance measurements. The one exception was a moderate correlation between shift schedule value and satisfaction. There were 11 moderate correlations (Vacation with Classification, Shift and Transfer; Classification with Shift, Security and Bumping; Shift with Security and Transfer; Security with Transfer and Bumping; Transfer with Bumping) of the 15 inter-facet value measurements. With regards to satisfaction, there were only four moderate correlations (Vacation with Classification and Security; Classification with Security and Transfer). For importance, there were 7 moderate correlations (Vacation with Classification and Shift; Classification with Shift, Security and Bumping; Shift with Transfer; Security with Bumping).However, when examining the correlations with the other groups of variables there are few moderate results.

Table 7. Correlation Table (Part 1)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
(1) VAC Value																		
(2) VAC Satisfaction	0.036																	
(3) VAC Importance	0.169	-0.155																
(4) CLASS Value	.478(*)	0.098	-0.082															
(5) CLASS Satisfaction	0.159	.499(**)	-0.278	0.132														
(6) CLASS Importance	0.141	-0.122	.473(**)	0.008	-0.184													
(7) SHIFT Value	.637(**)	0.360	-0.066	.554(**)	.610(**)	-0.141												
(8) SHIFT Satisfaction	0.276	0.340	-0.125	0.368	0.309	-0.136	.653(**)											
(9) SHIFT Importance	-0.117	-0.006	.492(**)	-0.315	-0.194	.388(*)	-0.111	-0.033										
(10) SECURITY Value	0.294	0.038	-0.105	.427(*)	0.221	0.108	.662(**)	.561(**)	0.130									
(11) SECURITY Satisfaction	-.456(*)	.502(**)	-0.236	-0.193	.405(*)	-0.190	0.051	0.292	0.215	0.136								
(12) SECURITY Importance	0.134	-0.003	0.316	0.090	-0.179	.547(**)	-0.016	0.000	0.325	0.270	-0.111							
(13) TRANSFER Value	.563(**)	0.049	-0.050	0.237	0.188	0.068	.667(**)	.439(*)	-0.130	.550(**)	-0.187	0.120						
(14) TRANSFER Satisfaction	-0.071	0.234	-.498(**)	0.291	.498(**)	-0.160	0.201	0.324	-0.312	0.276	0.374	-0.092	0.178					
(15) TRANSFER Importance	0.060	0.137	0.176	-0.182	0.128	0.162	0.173	-0.256	.364(*)	0.043	0.051	0.320	0.118	-0.023				
(16) BUMP Value	0.283	-0.147	-0.159	.441(*)	-0.037	0.106	0.286	0.292	-0.181	.579(**)	-0.018	0.228	.581(**)	0.163	-0.269			
(17) BUMP Satisfaction	-.454(*)	0.117	-0.383	-0.072	0.000	-0.050	-0.162	-0.085	-0.236	-0.124	0.279	-.482(*)	-0.210	0.126	-0.224	0.113		
(18) BUMP Importance	0.181	-0.130	0.182	0.222	0.130	.633(**)	-0.037	-0.201	0.119	0.081	-0.138	.569(**)	0.045	0.045	0.305	0.252	-0.072	
(19) Union COMMITMENT	0.136	0.256	-0.178	0.212	0.029	0.155	0.191	0.282	0.096	0.050	.393(*)	-0.141	0.027	0.116	0.305	0.252	-0.072	-0.023
(20) Union SATISFACTION	0.093	.377(*)	-0.289	0.222	0.191	-0.167	0.343	0.313	-0.023	0.081	0.299	-0.219	-0.050	-0.118	-0.158	0.034	0.139	-0.145
(21) SENIORITY Relative	-0.312	0.392	-0.057	0.348	-0.250	0.036	-0.125	0.145	0.162	0.150	.490(*)	0.034	-0.114	0.072	-0.130	0.301	0.264	0.053
(22) SENIORITY Absolute	0.117	0.238	0.063	.536(**)	-0.100	0.060	0.124	0.181	-0.063	0.180	0.022	0.176	0.164	-0.025	-0.005	0.290	-0.044	0.248
(23) Classification	0.061	-0.135	-0.009	-0.113	0.074	-0.109	0.014	-0.216	0.000	-0.187	-0.287	-0.037	-0.179	-0.095	0.303	-0.320	0.058	0.029
(24) Department	0.176	-0.156	-0.178	0.300	-0.382	-0.001	-0.246	-0.420	-.443(*)	-0.447	-0.264	-0.187	-0.113	0.072	-0.010	0.019	0.157	0.373
(25) Shift Schedule	0.189	0.066	0.257	-0.267	-0.022	.359(*)	-0.220	-.543(**)	0.046	-0.241	-0.112	0.090	0.036	-0.123	0.200	0.032	0.079	0.270
(26) Union OFFICER	0.021	-0.056	-0.183	0.206	-0.004	-0.078	-0.148	-0.125	0.163	-0.063	0.146	-.376(*)	-0.329	0.104	-0.193	-0.013	-0.055	-0.102
(27) Age	0.245	0.328	-0.147	0.352	0.293	0.143	0.321	0.345	-0.020	0.254	0.216	0.271	0.282	0.232	0.054	.460(*)	0.108	.403(*)
(28) Gender	0.128	0.109	-0.220	0.278	-0.254	-0.045	0.311	0.261	-0.022	0.346	-0.165	0.009	0.286	-0.075	-0.103	0.322	0.334	-0.170
(29) Marital Status	-0.139	-0.168	-0.201	0.011	-0.183	-0.241	0.025	-0.109	-0.018	0.212	-0.125	0.011	0.023	-0.034	0.197	0.053	-0.142	0.007
(30) Children	0.275	-0.112	.356(*)	-0.006	0.046	0.185	0.179	0.052	0.204	-0.077	-0.133	-0.158	-0.004	-0.102	-0.134	-0.113	-0.066	-0.084
(31) Visible Minority	0.303	-0.151	-0.237	0.242	0.356	0.119	0.369	0.019	0.024	0.314	-0.157	-0.098	0.335	0.072	-0.013	0.244	0.052	0.127

Table 8. Correlation Table (Part 2)

	19	20	21	22	23	24	25	26	27	28	29	30
(19) Union COMMITMENT												
(20) Union SATISFACTION	.803(**)											
(21) SENIORITY Relative	0.200	0.071										
(22) SENIORITY Absolute	0.014	-0.022	.847(**)									
(23) Classification	-0.246	-0.092	-0.368	-0.281								
(24) Department	0.279	0.102	0.092	0.200	-0.021							
(25) Shift Schedule	-0.085	-0.153	-0.396	-0.196	-0.249	0.293						
(26) Union OFFICER	.445(*)	0.278	0.360	0.039	-0.162	0.133	-0.066					
(27) Age	0.258	0.306	.555(*)	.597(**)	-0.060	-0.019	-0.083	0.031				
(28) Gender	0.338	.383(*)	0.361	0.184	0.091	0.116	-0.305	-0.060	0.237			
(29) Marital Status	-0.069	-0.001	.447(*)	0.208	0.160	0.061	-.416(*)	0.095	-0.016	.380(*)		
(30) Children	0.166	0.198	-0.304	-.455(*)	0.260	-0.201	0.046	0.281	-0.137	-0.117	-.414(*)	
(31) Visible Minority	0.249	0.334	-0.298	-0.337	0.128	-0.090	-0.085	0.309	0.110	0.297	0.049	.431(*)

Only twice does satisfaction correlate with union experience and then only singularly for both sides (Vacation Satisfaction with Union Satisfaction and Security Satisfaction with Union Commitment). Additionally, there were only 9 moderate correlations between the 18 different valuation and 11 demographic variables. No valuation variable has more than one moderate correlation while only shift schedule (with Shift Satisfaction, which is understandable, and Classification Importance) having two such correlations.

Union experience measurements have a high correlation (r = .803). It is plausible to accept that workers who are satisfied with bargained outcomes are more willing to be committed to the union, or that those already committed to unionism will achieve satisfaction easier with the union. There is an understandable moderate correlation between being a union officer and union commitment. Women (Gender = 1) and union satisfaction are also moderately correlated. All other correlations between union experience and workplace demographic variables were low.

The demographic variables have some significant correlations between a few aspects. Relative seniority and absolute seniority are highly correlated (r = .847) and both have a moderate correlation with age. Older workers will tend to have more years of service and those with longer tenure within a single firm analysis will be more senior to those with fewer years. There is also a moderate correlation between marital status

(married or divorced = 0, single = 1) and having children, indicating that those who have been married or lived in common-law in their lives will likely have more children than those who are single. The other moderate correlation is between visible minority and marital status, where visible minorities in this workplace are more likely to be single. This may be of interest to pursue in other research areas and is simply noted here for reporting purposes without further analysis.

5.2 Demographic Variables

Table 9. Worker Demographic Variables

Variable	Survey Sample	Population	Population Source
Gender			
Male %	87.1	86	Company Report
Female %	12.9	14	
Total % (N)	100 (31)	100 (916)	
Visible Minority			
Yes %	30	22	Company Report
No	70	78	
Total % (N)	100 (30)	100 (916)	
Age			
Mean (N)	47.8 (29)	43.0 (916)	Company Report
Marital Status			
Married/Common %	62.5	48.8	Winnipeg Census
Divorced/Widow %	15.6	17.5	
Single %	21.9	33.7	
Total % (N)	100 (32)	100	
Children			
Mean (N)	0.8 (32)	1.1	Winnipeg Census
Family Size			
1 child %	35.7	44.6	Winnipeg Census
2+ children %	64.3	55.4	
Total % (N)	100 (14)	100	

Given the low response rate, there is a potential for sampling error of the independent variables. Thus a comparison to the available population data for worker and workplace demographics is performed. The respondents reflect the corresponding population in a representative manner. The survey results and the anticipated results are shown in Table 9. A report of the firm's demographics indicates that it employs 14% women, 22% visible minorities, and the average age is 43 years (Mediacorp, 2007). Other demographics were not reported at the firm level, so a comparison to the city's demographics was used. Winnipeggers have an average of 1.1 children and of those who have children, 44.6% have one child and 55.4% have more than one (Statistics Canada, 2001). As well, 33.7% are single, 17.5% had a previous relationship (currently divorced or widowed), and 48.8% are in a conjugal relationship (either married or common-law) at the time (Statistics Canada, 2001). These external data reports form the basis for comparison.

The survey respondents reflect the larger population of the workforce and the surrounding city. The distribution of marital status is not significantly different from the greater population.[8] The average number of children (SD=1.11, N=32) per person[9] and the number of children in a family unit[10] were also not significantly different. The female worker percentage in the survey almost matches the reported specific workforce.[11] Also, the percentage of visible minority respondents is not significantly different from the firm's workforce.[12] The average age of respondents (SD =8.89, N=29) is upwards biased

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[8] $X^2 = 2.623$, df $= 2$, p $= 0.2694$
[9] t $= 1.3053$, df $= 31$, SE $= 0.196$, p $= 0.2014$
[10] $X^2 = 0.447$, df $= 1$, p $= 0.5036$
[11] $X^2 = 0.031$, df $= 1$, p $= 0.8603$
[12] $X^2 = 1.119$, df $= 1$, p $= 0.2902$

by almost five years greater than the average worker[13] but the distribution is acceptable.[14] There is no available breakdown of worker ages to address this issue. However, as there is a significant correlation (Adj. $R^2 = .332{****}$) between age and service years (B = .634****), there is the capability of addressing this variable with reviewing the responses of tenure.

Table 10. Workplace Demographic Variables

Variable	Survey Sample	Population	Population Source
Shift			
Days %	59.4	50	Collective Agreement
Other %	40.6	50	
Total % (N)	100 (32)	100	
Officer Experience			
Yes %	31.3	39	World Values Survey
No	68.7	61	
Total % (N)	100 (32)	100 (4703)	
Absolute Seniority			
Mean Years (N)	16.9 (29)	13.2 (783)	Seniority List
Relative Seniority			
Mean Percent (N)	62.1 (20)	50.1 (783)	Seniority List

In addition to characteristics of the person, there are demographics that arise from being in the workplace. These are shown in Table 10. Comparison data comes from varied external sources. The collective agreement indicates a distribution procedure that would anticipate half the workforce working straight days with the others being on either straight afternoons, nights or a rotational shift (CAW, 2006). A previous analysis of the 1983-1984 World Values Survey with 4703 union member respondents indicates that 39% have been a union officer at some point in their career (Inter-University Consortium for Political and Social Research as cited in Kuruvilla & Fiorito, 1994). An analysis of

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[13] t = 2.9235, df = 28, SE = 1.651, p = 0.007
[14] Kolmogorov-Smirnov Z = 0.663, p = 0.771

the firm's seniority list indicates an average (SD=8.72, N=783) of 13.2 years of service with a 50.1% relative seniority average (SD=28.89, N=783) for the entire reviewed workforce.

As with worker demographics, the workplace responses are representative of the larger workforce. The reported percentage of shift pattern worked is not significantly different than the firm's population.[15] As well, the 31% reported union officer experience is within acceptable variance.[16] The respondents' average relative seniority (SD=30.94, N=20), derived from their responses of number of total employees and their position on the seniority list, is also not significantly different from the analysis of the seniority list for the firm.[17] However, the average absolute seniority (SD=9.56, N=29) is upwardly biased (by almost four years) from the expected result from the seniority list analysis.[18] The distribution of respondents is within acceptable guidelines[19] and is viable for corrective measures. Workers' reported age and absolute seniority (the two variables with an upward bias of almost five and four years, respectively) are reasonably distributed and strongly correlated. As the encompassing seniority list is available, all further analyses will weight responses by absolute seniority to address these bias issues.

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[15] $X^2 = 1.125$, df = 1, p = 0.2888
[16] $X^2 = 0.808$, df = 1, p = 0.3867
[17] t = 1.8291, df = 801, SE = 6.553, p = 0.0678
[18] t = 2.2186, df = 810, SE = 1.656, p = 0.0268
[19] Kolmogorov-Smirnov Z = 0.774, p = 0.587

5.3 Union Experience

5.3.1 Union Commitment

Figure 5. Union Commitment (Calculated Scaled Responses)

Mean =3.14
Std. Dev. =0.874
N =28
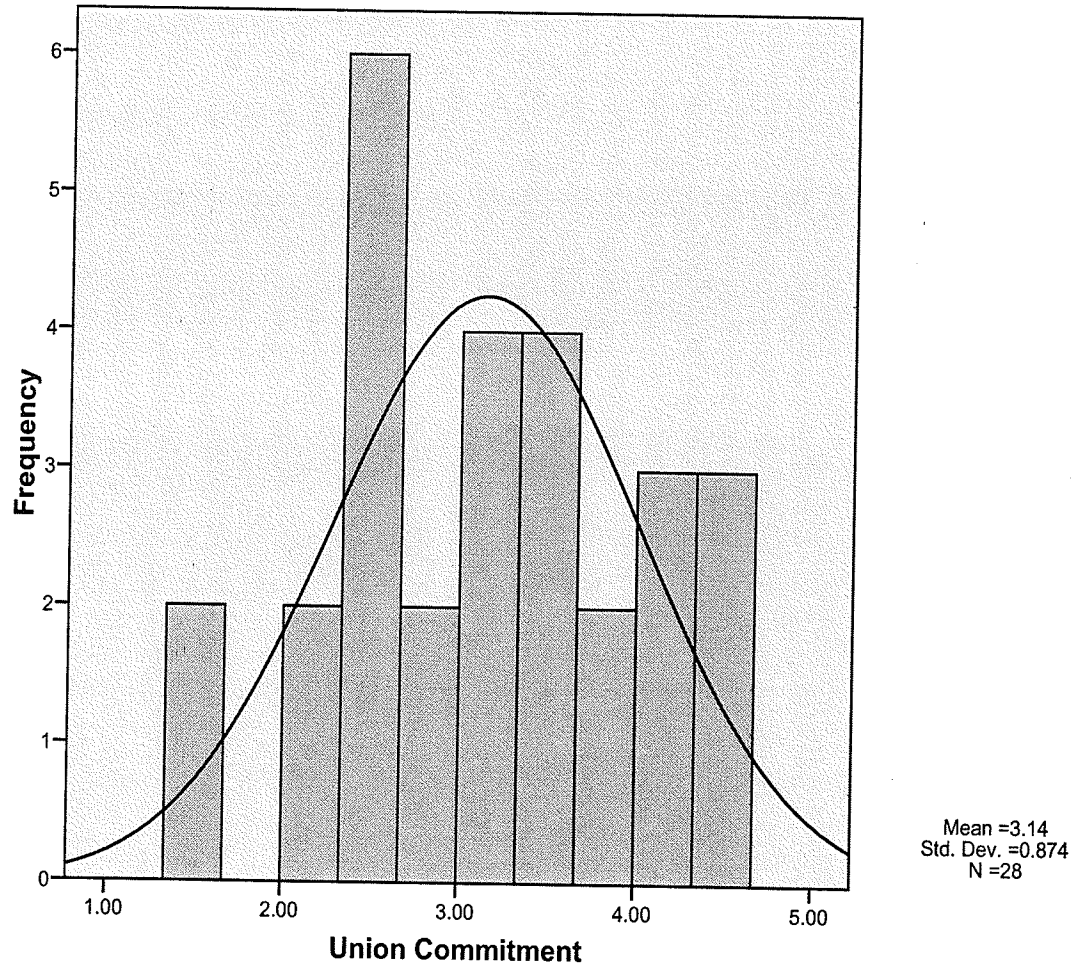
There were 19 standardized questions asked to establish the variable of union commitment. The ultimate calculation was created from the characteristics of union loyalty (9 items, $\alpha = .925$), responsibility to the union (7 items, $\alpha = .873$), and willingness to work for the union (3 items, $\alpha = .878$). The distribution of results and normal curve are shown in Figure 5. The survey sample produced a mean index of 3.14

(SD = 0.87, N = 28), which is not significantly different[20] from Kuruvilla and Fiorito's (1994) larger population response of 2.87 (SD = 1.1, N = 1486). There was some correlation from union commitment to workplace values, though not of a significant level. This could be partially explained through the complex interaction of personal and social influences to create union commitment (Kuruvilla, Gallagher, & Wetzel, 1993). Some of the factors which explain union commitment are also demographic variables. Additionally, the portion of union commitment related to willingness to work for the union could be seen as significant through the union official variable. While some reasoning for lower union commitment is explained from the perception that unions are "there for the people who don't want to work" there is still an underlying value of seniority as unions, as the same criticism continues, do "nothing for the senior workers."[21] Even if union commitment is low, the valuation of seniority, which is derived through unionized negotiations, remains significant to the workers.

5.3.2 Union Satisfaction

Another calculated variable is union satisfaction, which involved seven questions. The variable is calculated from the characteristics of perceived outcomes of "bread and butter" issues (4 items, α = .876) and perceived outcomes of relations between member and union (3 items, α = .893). The distribution of results and normal curve are shown in Figure 6. The survey sample satisfaction index of of 2.89 (SD = 0.95, N = 31) is not significantly different[22] from Fiorito et al's (1988) larger population response of 2.88 (SD = 0.96, N = 228). Union satisfaction has a directional dilemma. It is possible that

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[20] t = 1.2911, df = 1512, SE = 0.209, p = 0.1969
[21] Survey Number 80317001
[22] t = 0.0747, df = 257, SE = 0.184, p = 0.9405

workplace valuation and union satisfaction are interrelated as the union is the bargaining

agent that delivers these workplace values for its membership. The relationship between

union and members may be questionable, where the union does not "inform the common

worker."[23] However, bargained outcomes can still influence the measurement. Given the

directional problems, and the small significance of influence, the union satisfaction

variable did not appear in the main equations.

Figure 6. Union Satisfaction (Calculated Scaled Responses)

Mean =2.89
Std. Dev. =0.947
N =31

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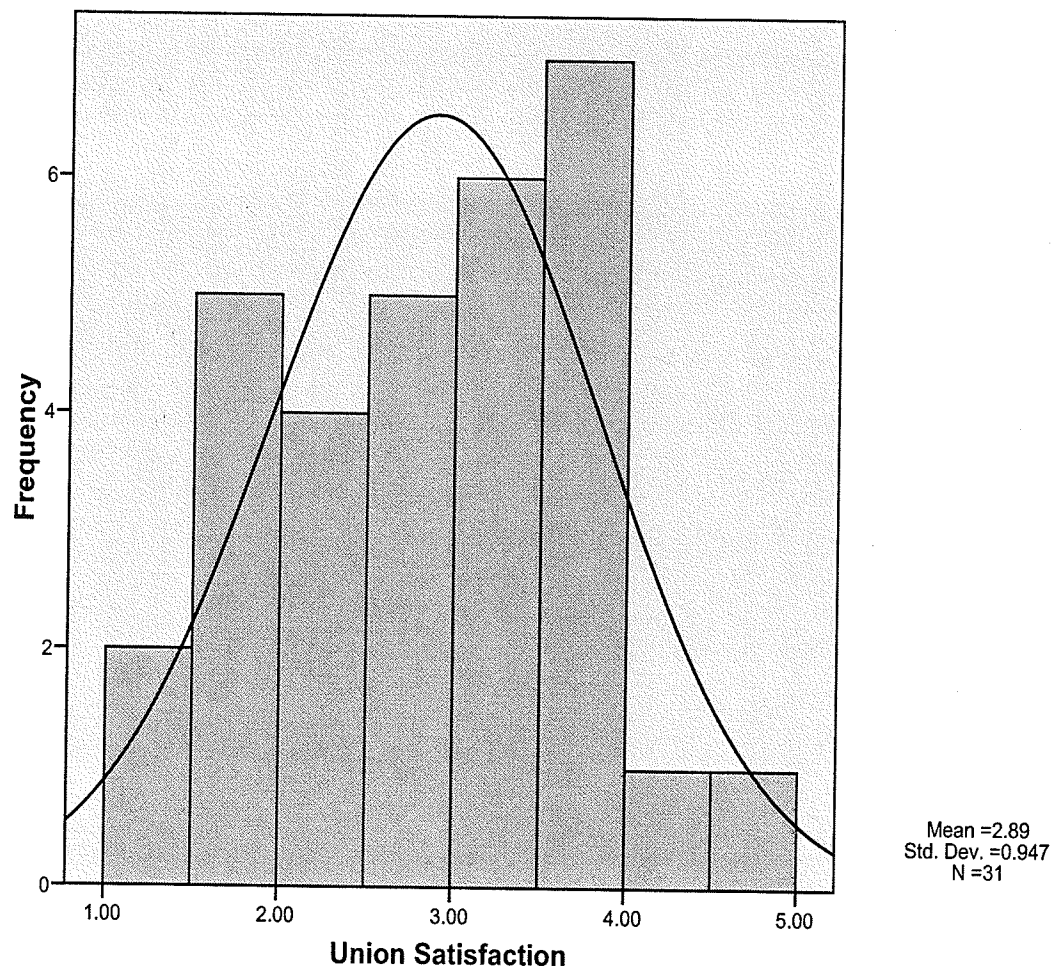
[23] Survey Number 80317003

5.4 Worker Measurement

Part of any data error will lie with the self-reporting of information from respondents and their ability to accurately determine the appropriate results. As with any research involving surveys, there is the recognition that some respondents will not have the capacity to be exact on all of their answers. Questions that involve something that is more commonly known will have a more accurate response than items which require an approximation, wherein the ability to provide a precise estimation provides self-reporting error possibilities (Weisberg, 2005). Properly worded questions can reduce reporting error (Taylor, 1990), but not entirely eliminate it. When questions arise regarding personal information about workplace issues, workers appear to have significantly accurate response ability.

Accuracy issues regarding workplace value should include the ability to determine seniority and wages. Most economic analyses measure seniority on the absolute scale, commonly referred to as tenure, and at times determining some arbitrary point wherein workers are defined as senior. Error reporting is often presumed to be on the inability to determine wages (Lefranc, 2003). Further research challenges the ability or willingness of workers to also accurately report their age and seniority (Weaver & Swanson, 1974). These areas can be addressed to improve accuracy but, when examined at the firm level, can reflect better reporting of relative seniority.

Weaver found that 91.8 percent of survey respondents accurately stated their birth date within a one-year margin of error and an even split between overstatements and understatements. As such, the inclusion of an age variable used the same question regarding date of birth, but limiting it solely to the year. Weaver's analysis of wage-

reporting errors led to a varied approach in this paper. Instead of asking respondents to report their salary, two other questions were used to give a better result. Workers where asked what their classification was and what shift they worked. As the collective agreement stipulates the wages for each classification plus the premiums for shifts other than day shifts, we can determine the base rate for every respondent without reporting error. Of course, errors could arise if workers did not know what position they are doing or what shift they are working but the likelihood of this becoming a reporting error is considered negligible. Weaver's determination of acceptable seniority date reporting was within three months of actual and reported 63.6 percent accuracy. However, 43 percent of the inaccuracies were within one year. Thus, we could state that a one-year variance, similar to age reporting, could expect 79.3 percent accuracy once all responses within one year are deemed to be included. This is achieved by asking workers what year they started accumulating seniority, in which a significant event such as a new job should create a more accurate response while using a calendar year approach. This response format also allows for the comparison to the corporate seniority listing which is broken down by number of employees hired in each year. As well, comparisons can be made to other research that uses the measurement of tenure as determined by service years.

Workers at the firm level appear to have a greater ability to accurately report their relative seniority than the analytical process of academia. There were three different ways to obtain relative seniority determination: (1) simply placing each worker chronologically by hiring date and applying an equivalent amount of relative seniority to each person based on the number of years with the firm; (2) apply the respondent's start date to the average relative seniority value from the first calculation based on their stated years of

service; and (3) ask the respondents to state how many workers are in the firm and where

they believed they were on the list, to create a relative seniority value for comparison to

their stated service years. Table 11 provides a breakdown of the relevant statistics for all

three methods.

Table 11. Comparison of Relative Seniority Formula Determinations

	Actual SR from Seniority List (SR_{Actual})	Plotted SR from Service Years (SR_{Plot})	Calculate SR from Survey Response (SR_{Calc})
Intercept (StdErr)	9.384**** (0.694)	16.321**** (4.072)	14.896* (8.113)
PerYear (StdErr)	3.076**** (0.044)	2.720**** (0.209)	2.946**** (0.443)
Adj. R^2	0.863****	0.862****	0.706****
F	4936.025	169.993	44.249
Df	1,781	1,26	1,17

Table 12. Application of Relative Seniority Determination Formulae

Years	SR_{Actual}	SR_{Plot}	SR_{Calc}	$SR_{Plot-Actual}$	$SR_{Calc-Actual}$
01	12.460	19.041	17.842	6.581	5.382
05	24.764	29.921	29.626	5.157	4.862
10	40.144	43.521	44.356	3.377	4.212
15	55.524	57.121	59.086	1.597	3.562
20	70.904	70.721	73.816	0.183	2.912
25	86.284	84.321	88.546	1.963	2.262
30	101.660	97.921	103.280	3.743	1.612
35	117.040	111.520	118.010	5.523	0.962
40	132.420	125.120	132.740	7.303	0.312
			Average Difference	3.569	2.847

A cursory review of the differing formulae may lead one to accept the

academically plotted value pattern. This would be understandable with its larger R^2 and

smaller standard errors. However, the worker-derived responses are closer to the actual

seniority list intercept and slope variables; this proximity provides smaller deviations

when contrasted against the original seniority list formula. Table 12 shows the

application of the three formulae and the absolute differences between the plotted and calculated applications from the actual application. The 2.847 average difference of relative seniority ranking from the workers' calculated method is more favourable than the 3.566 average difference of the plotted method. In fact, the plotted method would create a 25% greater difference in fluctuation from the workers' determined method. The workers are better prepared to measure their relative seniority ranking than the indifferent and neutral researcher. Workers have a more direct link to their seniority, which has a value personally derived from it, and therefore keep closer track of their position than a generically created formula. This personal attachment to relative seniority value accounts for a more accurate measurement and therefore future analyses will use calculated relative seniority.

Table 13. Worker Relative Seniority Measurement (Likert Scale & Calculated)

Seniority Ranking[24]	Relative Seniority (%)	Quintile Median (%)	N	t-value, p
Very Junior	11.1	10.0	2	0.1538, 0.9028
Somewhat Junior	15.6	30.0	2	6.3684, 0.0992
Near the Middle	49.9	50.0	4	0.0124, 0.9909
Somewhat Senior	75.5	70.0	6	0.9234, 0.3982
Very Senior	89.2	90.0	6	0.2484, 0.8137

Workers can also determine accurately using a Likert scale measurement. Table 13 shows the comparison of respondent answers regarding their seniority ranking to their calculated relative seniority responses. The quintile median is the expected relative seniority result for each ordinal response of seniority ranking. All five categories of survey responses were not statistically significantly different from their corresponding expected results, and three of the five categories were within one percent of the expected

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[24] Q15. What is your seniority ranking in your workplace?

results. It is therefore possible to use either calculated relative seniority questions or simply a Likert measurement and anticipate an accurate response.

Table 14. Contractual vs. Declared Vacation Days

Contractual Vacation Days[25]	Worker Declared Vacation Days[26]	Std. Err.	N
10	8.667	0.882	3
15	10.000	-	1
20	19.615	0.385	13
25	23.333	0.833	9
30	28.333	1.667	3

Further data were collected and analyzed to determine workers' ability to accurately report on aspects where there should be a known objective quantity. An example of this analysis is vacation, where date of hire determines the amount of vacation. A question was asked how many vacation days the worker received and, later in the survey, what had been their start year. The comparison of known weeks to the declared number of days is shown in Table 14. The accuracy[27] of their responses lends credence to the argument that workers are able to accurately measure workplace items. The one exception was those with three weeks of contractually determined vacation, but as there was only one respondent in this category, the greater part of error would be attributable to the small subcategory reporting size.

Workers are also able to reflect on items that are set outside of personal valuation. To determine workers' response to the idea of seniority providing fairness, two sets of questions were introduced. First is the comparison of different processes of value distribution and the workers' response of how fair they deem them. The results are presented in Table 15. There is little difference between worker preference for fairness.

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[25] Derived from Q54. What year did you start accumulating seniority?, converted into tenure, and compared against the collective agreement section regarding vacation allotment.
[26] Q16. How many work days did you receive in vacation for last year?
[27] $R^2 = 0.865$****

However, there is an indication that seniority distribution has more acceptance of being the fairest system of value distribution.

Table 15. Worker Determination of Distribution Process Fairness (Percent)

Fairness of:[28]	Not at all fair (-2)	Not fair (-1)	Neutral (0)	Fair (1)	Very fair (2)	MEAN Fairness
Measured Ability	3	10	43	33	10	0.367
Performance Report	0	14	39	32	14	0.464
Service Years	3	17	23	43	13	0.467

Table 16. Seniority being Investment or Fairness Mechanism (Percent)

	Strongly Disagree (-2)	Somewhat Disagree (-1)	Neutral (0)	Somewhat Agree (1)	Strongly Agree (2)	MEAN Agreement
Q29.Seniority is an investment owed to me	0.0	18.8	21.9	25.0	34.4	0.750
Q37.Seniority is an important system to eliminate managerial favouritism	12.9	12.9	19.4	16.1	38.7	0.549

Another interest is the contrast between seniority being seen as providing value and that of providing fairness (see Table 16 above). These are sometimes called positive and prophylactic factors (C. Gersuny, 1987). The positive factor posits that people should receive value because they have earned it while the prophylactic factor posits that seniority prevents arbitrary injustice. The difference between seniority being seen as an investment, or positive factor, and providing fairness, or prophylactic factor, is minor. It

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[28] Q19. For each of the following distribution systems, please indicate its fairness to you:

can be posited that there is a small preference to seniority being seen as an investment, but for the most part workers utilize both factors of the seniority equation.

5.5 Workplace Valuation Items

5.5.1 Satisfation

Table 17. Relative Seniority Items Satisfaction Responses (Percentage)

Seniority Satisfaction Item[29]	Very Dissatisfied (-2)	Somewhat Dissatisfied (-1)	Neutral (0)	Somewhat Satisfied (+1)	Very Satisfied (+2)	MEAN Satisfaction
Vacation	28.1	37.5	6.3	21.9	6.3	-0.592
Transfer	18.5	14.8	40.7	18.5	7.4	-0.185
Bumping	4.0	20.0	32.0	40.0	4.0	0.200
Classification	3.1	6.3	12.5	53.1	25.0	0.906
Schedule	0.0	16.1	12.9	25.8	45.2	1.001
Job Security	6.3	6.3	12.5	62.5	12.5	0.686
Class & Shift	0.0	9.7	16.1	48.4	25.8	0.903

In addition to expressing their relative seniority, workers can express their value in regards to different variables that interact with their relative seniority. Each item reviewed had a corresponding questioning about the individuals satisfaction with their experience with that item, and is included in Table 17. These figures suggest that workers are not satisfied with their vacation selection but are satisfied with their job classification and shift schedule. They feel secure in their jobs.

Most of these items, while achieved through relative seniority, have other details that are pertinent but would be individualized based on the workers' external influences and factors. A step-wise analysis led to the formation of varied regression formulae, as shown in Table 18. Job classification and transfer ability did not produce significant results. Absolute seniority did not factor in any of the satisfaction aspects, while relative

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[29] Qs 1, 3, 5, 7, 9, 11, 13. How satisfied were you with your [Seniority Satisfaction Item]?

seniority factored into the satisfaction with job security. Senior workers, who are also less

likely to be laid off, have greater satisfaction with their job security than junior workers.

Aside from job security, seniority does not factor into the workers' satisfaction of

workplace aspects.

Table 18. Satisfaction Regressions

Satisfaction with:	Vacation	Class	Schedule	Security	Transfer	Bump	Combo
Adj. R^2	0.180**	0.044	0.261***	0.469***	0.007	0.108*	0.134*
Constant	-1.764	0.606	-1.345	-1.451	-1.784	0.082	-0.458
MINORITY	-1.061**						
UnSAT+	0.551**	0.511*	0.726***	0.633**			0.467**
UnCOMM++		-.353					
GENDER				-1.934**			1.054*
CHILD				0.430**			
SR$_{Calc}$+++				0.016**			
AGE						0.034	
OFFICER							-.627

+	UnSAT = Union Satisfaction Index (1.0 – 5.0)
++	UnCOMM = Union Commitment Index (1.0 – 5.0)
+++	SR$_{Calc}$ = Relative Seniority Percentile (0.01 – 100.0)

5.5.2 Importance

Table 19. Relative Seniority Items Importance Responses (Percentage)

Seniority Importance Items[30]	Not at all important (-2)	Not important (-1)	Neutral (0)	Important (+1)	Very important (+2)	MEAN Importance
Vacation	0.0	3.2	3.2	45.2	48.4	1.388
Transfer	0.0	6.7	33.3	40.0	20.0	0.733
Bumping	0.0	0.0	32.3	22.6	45.2	1.130
Classification	0.0	3.2	22.6	35.5	38.7	1.097
Schedule	3.2	0.0	9.7	38.7	48.4	1.299
Job Security	0.0	0.0	9.4	34.4	56.3	1.470

Workers also expressed the importance of the different aspects to them. Their

responses are presented in Table 19. An initial glance would indicate that all aspects are

important to workers. A second review finds that workers find their vacation selection,

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[30] Q18. For each of the following seniority-related items, please indicate its importance to you:

work schedule and job security more important than their job classification and abilities to transfer and bump to other jobs at the workplace. Security provides a better guarantee of continued income while vacation and schedules determine the availability of time at home with family. The items that respondents deem more important focus on workers and their family (i.e. being away from paid employment) rather than their workplace.

Table 20. Importance Regressions

Importance of:	Vacation	Class	Schedule	Security	Transfer	Bump
Adj. R^2	0.406****	0.399***	0.119**	0.230**	0.468****	0.027
Constant	2.264	2.169	2.349	0.962	3.545	1.886
CHILD	0.332****	0.520***				
UnSAT+	-.436****	-1.185****	-.290**	-.396***	-.586***	-.240
GENDER		1.657***			1.475**	
UnCOMM++		0.522**				
AGE				0.036**		
SR$_{Calc}$+++					-.017***	

+   UnSAT = Union Satisfaction Index (1.0 – 5.0)
++   UnCOMM = Union Commitment Index (1.0 – 5.0)
+++   SR$_{Calc}$ = Relative Seniority Percentile (0.01 – 100.0)

The regressions, shown in Table 20, showed that there was a plausible explanation for all aspects except for bumping ability. In all cases, increased union satisfaction led to decreased importance ratings. Part of the union satisfaction index is determined by perceived outcomes of important issues. As these items are perceived as already delivered over a period of time, their current importance rating could be devalued because their already enjoyed status. Relative seniority was a negative factor for transfer ability importance. This can be explained that senior workers may already be in the classification and/or schedule they desire and thus have no current need for the ability to transfer any further. As with satisfaction analyses reported earlier, absolute seniority was not a factor in any of the aspects.

5.5.3 Value

Table 21. Valuation Survey Responses

	Vacation Selection	Job Classification	Shift Schedule
Mean	43.443	56.600	54.364
(StdErr)	(8.268)	(7.487)	(7.002)
Skewness	1.830	-.462	-.296
(StdErr)	(.441)	(.464)	(.456)
Kurtosis	4.856	-1.435	-1.443
(StdErr)	(.858)	(.902)	(.887)
N	28	25	26

	Job Security	Transfer Ability	Bumping Ability
Mean	56.509	44.320	48.769
(StdErr)	(7.157)	(8.312)	(6.781)
Skewness	-.442	.745	-.041
(StdErr)	(.448)	(.464)	(.456)
Kurtosis	-1.590	-.040	-1.303
(StdErr)	(.872)	(.902)	(.887)
N	27	25	26

	Combo Value	Total Value
Mean	61.346	49.719
(StdErr)	(6.180)	(6.153)
Skewness	-.914	-.342
(StdErr)	(.456)	(.481)
Kurtosis	-.268	-1.054
(StdErr)	(.887)	(.935)
N	26	23

Worker measurement of the different seniority valuation aspects are almost equal Respondents were asked what value, as a percent of salary, they would place with their six aspects of seniority value (vacation selection, job classification, shift schedule, job security, transfer ability, bumping ability) as well with as their job classification and shift schedule combined. A total valuation was created by averaging their responses to the six individual aspects. The results are shown in Table 21. Combo value (determined from the survey question asking their valuation of job classification and shift schedule) should be higher as it includes one's valuation of classification and schedule as a combined value

and the fact that there it does not equal the other two variables added together shows that there is an interaction effect. Total value is a calculated average of the first six variables, excluding the combination value. This is used to determine a median mark with which it could be posited that vacation selection, ability to transfer and ability to bump are valued less than job classification, schedule and job security. Union officials can do similar survey methods to determine what is important to their membership.

Table 22. Mean Differences of Valuation Responses

	1	2	3	4	5	6	7
(1)Vacation							
(2)Classification	11.7						
(3)Schedule	12.8*	0.1					
(4)Security	13.7	0.2	0.5				
(5)Transfer	-0.1	-16.5	-13.9**	-11.5			
(6)Bumping	5.6	-9.3	-7.6	-8.4	4.0		
(7)Combination	18.2	1.0	5.3	4.2	16.7**	12.6**	
(8)Total Value	5.7	-7.0	-5.4	6.0	10.2**	2.4	-8.1**

Even though the value means differ, there is no one specific variable that is significantly valued more than the others. An analysis of means differences, as shown above in Table 22, shows that less than 25% of these differences are significant and no more than two occurrences of significance for any one specific variable. The mean values are approximately within ten basis points of each other and the standard errors are within less than two. It may be interpreted that the respondents value all variables equally. Almost all variables fall within acceptable normal distribution curve measurements (Miles & Shevlin, 2001). There is negligible skewness, which indicates an even spread of responses without any clustering of data at either end of the distribution. The normal curve is slightly platykurtosed (pulled outward, making more flat), which indicates that the spread is somewhat greater than expected. However, this kurtosis is within acceptable limits. Vacation selection is the exception to the acceptable limits. Its distribution

clustering is strongly positively skewed, which indicates that more values are placed to the right of centre (and thus lowered valuations). The normal curve is also greatly leptokurtosed (pulled upward, making more peak) to the point of significantly distributed away from normal distribution. Performing a log transformation of the data followed by an exponential of the results can address this issue. Thus, almost all relative valuations fall within acceptable expectations, except for vacation selection, which has a larger number of responses being lower than anticipated.

Table 23. Workplace Value – Relative Seniority Regressions

Variable	Constant	SR_{Calc}	t-value	Adj. R^2	sig.
Vacation	130.692	-1.194	-2.790	.298	.014
Classification	57.983	.144	.500	-.053	.625
Schedule	98.578	-.514	-2.515	.250	.024
Security	70.129	.035	.162	-.065	.873
Transfer	73.451	-.475	-1.459	.070	.167
Bumping	31.399	.337	1.203	.027	.248
Class & Shift	66.124	.043	.293	-.061	.773
Total Value	76.744	-.263	-1.504	.078	.155

Relative seniority is a small factor for explaining the different facets of workplace value. Table 23 shows regression analyses where only relative seniority is the independent variable. It is interesting to note that the three most significant individual results (vacation, schedule, and transfer ability) are negative factors. This result might be considered as against the expectations of continued value accrual through one's work career. However, the negative relation can also be considered as a relational experience. Workers can achieve value whether it be a desired vacation week, preferred shift schedule, or transfer to a more desirable position. Once that value is achieved there may not be any additional accumulation of value in that specific category for periods of time. During this stagnant value period, workers can continue to receive better relative seniority, either through retirements at the top or additional hires expanding the overall

workplace seniority list. Thus workers receive more relative seniority while not achieving additional workplace value and might perceive this stagnation as a negative influence from relative seniority accumulation. Though there is no loss of value, the relation point has moved farther away and workers would incorrectly attribute this distancing as a negative influence or loss.

Table 24. Workplace Value – Absolute Seniority Regressions

Variable	Constant	SR$_{Calc}$	t-value	Adj. R^2	sig.
Vacation	54.16	-.509	-.355	-.038	.726
Classification	21.309	2.227	2.479	.183	.021
Schedule	59.945	-.115	-.123	-.043	.903
Security	47.52	.793	.909	-.007	.373
Transfer	49.307	-.741	-.630	-.028	.536
Bumping	33.983	.752	.722	-.021	.478
Class & Shift	54.093	.216	.240	-.043	.813
Total Value	51.079	.060	.068	-.047	.947

Absolute seniority, as a sole variable, is a negligible contributor to workplace values as shown in Table 24, with the exception of job classification. There are 28 classifications within the surveyed firm with one requiring 12 years of tenure before admission, another having a 3 year requirement, and three others with a 15 month residency. These five classifications specifically rely on absolute seniority in order to achieve the positions and may explain the statistically significant relation between classification and absolute seniority.

A comparison of the significances of relative and absolute seniority shows that relative seniority is more significant more often than absolute seniority. Relative seniority is significant for vacation and schedule compared to classification for absolute seniority. Where both are not significant, relative seniority is more significant for transfer and bumping compared to security for absolute seniority. As well, relative seniority is more significant than absolute seniority for the calculated combination and total values.

Table 25. Value Regressions

Value of:	Adj. R^2	Constant	SA	SR$_{Calc}$	CHILD	OFFICER (1 = yes)	MINORITY (1 = yes)	AGE
Total Value	.575****	45.691	2.602***	-.656***			26.471***	
Combination	.203	35.664		.523**		-29.490**	32.194**	
Bumping	.148**	-33.879						1.781**
Transfer	.204**	32.386				-26.573*	40.100**	
Job Security	.540****	52.495		.506**		-54.320****	44.292****	
Schedule	.637****	64.065	3.662****	-1.080****	9.185**			
Classification	.302***	17.397	1.576*			30.824**		
Vacation	.665****	52.860	7.114****	-2.210****	22.507****			

Regression analyses, shown in Table 25, showed significant R^2 values except for the combination of classification and schedule. Half of the regressions had a strong (greater than .500) coefficient determination. Three-quarters involved some aspect of seniority. Absolute seniority was a significant factor four times, though mainly in

conjunction with relative seniority except for job classification. Relative seniority, in addition to the three regressions that included absolute seniority, was also significant with job security and combination (and it should be noted that combination includes classification where absolute seniority was relevant). Thus, seniority is an important factor for regression analyses of the value facets and relative seniority more relevant than absolute seniority.

5.6 Summary

Seniority is more relevant in value facet regressions than those of satisfaction and importance. While seniority is less relevant in satisfaction and importance regressions, relative seniority does appear as a significant factor in both analyses while absolute seniority does not. When examining value facets, relative seniority appears more relevant than absolute seniority. Using sole variable regression analyses, relative seniority is more significant more often than absolute seniority. In multi-variable regression for value facets, relative seniority and absolute seniority work in conjunction in most cases but relative seniority appears solely once more than absolute seniority. As satisfaction and importance regressions have small relation with seniority (and even then it is only relative seniority being significant), an expanded analysis of just the value facet regressions follows.

6. Discussion

6.1 Workplace Value

6.1.1 Vacation Selection

Equation 17. Worker Valuation of Vacation Selection

$$Val_{Vacation} = 52.860 + 7.114SA - 2.210SR_{Calc} + 22.507CHILD$$

Workers achieve different amounts of vacation time based on their absolute seniority while selecting when their vacation is taken based on their relative seniority. Vacation is used for increased leisure time and this time away from work can allow for more time with workers' families. Thus it is not surprising that absolute seniority, relative seniority and dependent children appear as significant variables in the regression analysis of vacation value. Workers are included in the societal norm of valuing family time and are a part of a neutral compensation system that awards the value of additional vacation to recognize longevity. It is through the stagnation of vacation selection wherein relative seniority is portrayed as a negative influence which tempers the value derived from absolute seniority.

The three factors combine to provide an integrated solution, as shown in Equation 17, to determining the workers' valuation of vacation selection.[31] Relative seniority was stronger (β = -1.110) than both absolute seniority and number of children (β = 0.893, 0.515 respectively) in determining vacation valuation. The positive influence of dependent children is expected. If people want to spend more family time, then those with more family will have a greater probability or necessity to value their time away

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[31] Adj. R^2 = .665****

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from work. One worker with children went so far as to ask for a summer shutdown so that those "with small kids need time to spend a week or two when they are not in school."[32] Marital status is not a significant factor, so it can be presumed that it is not additional time with a worker's partner that is what is desired.

Absolute seniority has a positive influence on vacation value. The number vacation weeks is not significant, but would be captured partially within the absolute seniority factor. Workers accumulate additional vacation time with increased tenure, which can be calculated through absolute seniority. As specific absolute seniority points determine the addition of vacation weeks, this is represented through the positive linear relationship.

Relative seniority works in parallel to absolute seniority but not in direct relationship to it. An additional year of absolute seniority does not dictate a positive nor negative change to relative seniority. Relative seniority can provide more desired vacation selections. Desirability would be the summer months of July and August, as evidenced by a vast percentage of Canadian workers taking time during that period, compared to all other months in the year (Gower, 1989). It should be noted that all workers in this firm have the opportunity to take the first two weeks of vacation at some point during this summer period. However, there is no such guarantee for additional weeks. It is possible to accumulate more vacation, which has more value, but receive it during a less desirable time in the year, thus decreasing its value. The vacation selection of additional weeks provides less desired vacation selections. Thus it seems to the worker that their relative seniority detracts from the overall vacation value while their absolute seniority provides positive value through additional weeks of vacation.

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[32] Survey Number 80320002.

6.1.2 Transfer Rights

Equation 18. Worker Valuation of Transfer Rights

$$Val_{Transfer} = 32.386 + 40.100 MINORITY - 26.573 OFFICER$$

Transfers provide additional benefits to workers with a more rewarding job, more desired shift patterns, or additional compensation. Workers found, as shown in Equation 18, that there are relevant factors in transfer value.[33] While seniority is a factor in the transfer calculation, both absolute and relative seniority were not found to be significant. Visibility minorities found more value in their ability to transfer while union officers, past and present, found less value in this process. Gender discrimination is also not statistically significant, as all workers are treated equally under the collective agreement within a firm, but management might implicitly consider it.

The two significant variables are both of a dichotomous nature. Minorities still experience compensation discrimination in the overall workforce. Therefore there is a double differentiation for valuing transferring within a firm. Not only do they avoid the earnings loss associated with a new employer but they also avoid the discriminatory difference. This avoidance of loss can also be portrayed as an increased valuation within one's current context.

The negative influence of union officialdom is more puzzling. One might expect that officers better understand the practices of seniority distribution and would value transfer ability, with its usage of relative seniority, positively. A closer examination of the transfer practice provides a potential answer. The collective agreement allows for a managerial testing ability as part of the requirement to transfer. This managerial influence can be perceived as arbitrariness, which is something that seniority purports to resolve.

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[33] Ad. $R^2 = .204$**

Any officer who receives a transfer does so not directly by seniority, which is what they are taught to uphold, but in part from managerial approval. Though as a worker they might appreciate the gained value from a promotion, as an officer they are conflicted over this gain coming from managerial discretion rather than strictly by the seniority system that they necessarily uphold and support on a daily basis. Thus, this inner-conflict of duelling values presents itself as a negative factor to compensate for receiving value through an arbitrary process against which they argue.

6.1.3 Bumping Ability

Equation 19. Worker Valuation of Bumping Ability
$$Val_{Bump} = -38.879 + 1.781AGE$$

The ability to bump is a dampening effect against losing employment with a firm. It should have a positive value as measured against the amount of loss saved by staying within the same employer. Equation 19 shows the workers' measurement.[34] The significant factor does not include relative seniority, which is the factor that allows for bumping, so it is truly the personal valuation of workers that determines the significant variables.

Two issues arise from the equation: why is age a factor and not relative seniority? Older workers have more to lose than younger ones. As indicated previously through Equation 8 on page 70, both would have an earnings loss if laid off which could be equal. Similarly, as indicated through Equation 15 on page 77 and Equation 16 on page 77, they could recoup an equal amount through bumping and derive an equal value on the net value of job security. It is this equivalence that helps explain the positive factor of age.

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[34] Adj. R^2 = .148**

Older workers, if they lose their jobs, have less time to recoup the earnings loss arising from layoff. Further, any loss attributable to the bumping into a different position is lower than the earnings loss from layoff. Older workers place a greater value on their bumping ability, which may be determined as their potential earning loss divided by the number of remaining working years. As older workers have fewer working years left than younger workers, the loss value per year is higher for the older worker. It is this higher loss value that is expressed through the bumping value equation as a positive factor for age.

Relative seniority, anticipated to be relevant, turned out to not being a significant factor. This can be partially explained through an analysis of the layoff process used within the firm structure. Layoff notices do not go out solely by relative seniority. Rather, downsizing determinations are made by specific job tasks, departments, and schedules. Similarly, employees have made some individual choices as to what specific tasks and schedules suit them best. As such, layoff notices are sent to different workers based on more factors than simply relative seniority. These workers, on different points of the seniority list, are then left with the decision of what their specific relative seniority will allow them to bump into. The inclusion of these extraneous factors to the layoff and subsequent bumping decisions serve to reduce the impact of relative seniority below the point of significance.

6.1.4 Job Classification

Equation 20. Worker Valuation of Job Classification

$$Val_{Classification} = 17.397 + 1.576SA + 30.824OFFICER$$

Workers receive compensation based on the specific tasks they are expected to perform. This compensation is derived from human capital practices applied by

management and collective bargaining strategies employed by union officials. Workers are not directly involved in the wage setting discussions but, as shown in Equation 20, will still determine their value for performing their current job.[35] Workers experience their remuneration on a biweekly basis and perform in their job classification daily. This continuous application of value can explain the valuation formula being reduced to two variables that also apply on a continuous basis, absolute seniority and ever being a union officer.

Workers have a finite working career. Every day of work increases their absolute seniority while reducing available future working time. It is anticipated that workers are overcompensated in relation to their productivity during later years of their working career and this overcompensation will eventually decline (Becker, 1975). Workers see their earnings increase along with absolute seniority. They also do not see the future decline due to the intervention from collective bargaining that keeps job rates consistent. This additional application provides prevention from potential loss, which can be interpreted as a continued value gain to coincide with absolute seniority. Thus, the linear relation between earnings and absolute seniority is anticipated and supported by the evidence.

Wage rates are derived through union involvement in the collective bargaining process. Union officials represent workers within these negotiations. They have first-hand involvement in setting wage rates attributable to each job classification. They play a role in value distribution. As such, they have a greater understanding than other workers not directly involved in the bargaining process that there is value attached to each classification. The positive influence of being a union officer to the equation can

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[35] Adj. R^2 = .302***

therefore be explained as owing to their involvement in the value distribution process. They place a greater valuation to job classification because they distributed value to these different classifications and understand that there is an overall value for distribution.

6.1.5 Shift Schedule

Equation 21. Worker Valuation of Shift Schedule

$$Val_{Shift} = 64.065 + 3.662SA - 1.080SR_{Calc} + 9.185CHILD$$

Workers will want to work the societal norm of dayshifts or receive compensation if required to deviate from this normalized shift pattern. Some workers will choose a different shift if they deem the compensation more attractive. Equation 21 shows that workers, regardless of their specific shift pattern, have some ability to determine their shift pattern and place a value to this selection.[36] Relative seniority was stronger (β = -1.166) than absolute seniority and number of children (β = 0.984, 0.450 respectively) in determining shift selection valuation. Seniority allows for the worker selection of their shift schedule; family status, specifically the presence of children, influences their shift pattern preference.

Workers are placed on a specific schedule when they are initially hired. This initial placement may not be desired but is accepted by the worker in order to gain employment. Future shift selection is accomplished through bidding on the basis of relative seniority. As in the case of vacation selection analysis, workers perceive value through absolute seniority while actually achieving this value from relative seniority. There is an integrated calculation in which, once a desired shift is achieved, additional relative seniority provides no additional value and any accumulation of such can be

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[36] Adj. R^2 = .637****

portrayed as a negative influence; however, absolute seniority is a positive influence as it portrays an additional year of achieving the desired shift.

The recognition of children in the family unit influences the workers' preference for certain shift schedules. While vacation desirability may give workers a block of time off to share with their children, shift selection desirability allows for daily interaction outside of working hours. Workers without children may also desire certain shifts but not to the same extent as those with children. Shift premiums may also be of an appropriate value to workers, but it can be only that those workers with children determine the premium as a greater compensation amount for the less desirable shift pattern. Thus, children become a significant influential factor in the worker valuation of shift schedules.

6.1.6 Job Security

Equation 22. Worker Valuation of Job Security
$$Val_{Security} = 52.495 + .506SR_{Calc} + 11.530MINORITY - 54.320OFFICER$$

Workers derive their lifestyles from their employment earnings. As such, any threat to their employment can greatly affect their livelihoods. Equation 22 shows that workers appreciate the ability to maintain employment through job security measures.[37] Protection for earnings loss through layoffs is objectively derived solely from relative seniority. Minorities can place a greater value to job security when they determine the available options in the external job market while union officials surprisingly place a lower value to this factor of their workplace value.

Layoff notices can be distributed by classification, department, and shift schedule outside of the overall workplace seniority list. This arbitrariness is then addressed

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[37] Adj. R^2 = .540****

through the bumping process, as discussed earlier on page 113. However, bumping simply moves the managerially determined staff reduction to another classification, department or shift as there is now an overage in the area where the originally laid off worker bumps into. The junior worker in the new area would receive a layoff notice and have the same decisions to make as the "bumper". This process can involve multiple bumps until only the most junior workers are left with a layoff notice; they lack bumping ability and are ultimately laid off. The managerial decision of an overall staff reduction is achieved, and staff with relative seniority displaces the junior workers. As this codified process reduces the probability of senior workers to actually lose their jobs, relative seniority provides a positive value as protection for earnings loss.

In addition to relative seniority providing job security value, minorities would place greater value to this protection. All workers in the firm would suffer an equivalent amount of earnings loss, all other things being equal. However, there is still a discriminatory wage gap for minority workers. Thus, their overall potential earnings loss is greater. This greater potential earnings loss would be reflected as a greater value attached to their job security.

As was the case with transfer rights, the negative influence of being a union official is a perplexing issue. If there was to be any influence, one could expect it to be positive to account for these people's greater understanding of how job security provisions are developed and what their underlying value is. However, union officials would be more aware that the decision for layoffs rest solely with management. Thus, union officials may account for this alienation from staffing level determination through their negative influence of job security value. As an alternate viewpoint, workers may not

appreciate this nuance of managerial authority over staffing and overvalue their security from being laid-off.

6.1.7 Work and Home Life (Classification and Shift)

Equation 23. Worker Valuation of Classification and Shift Combined

$$Val_{Combo} = 35.664 + .523SR_{Calc} + 32.194MINORITY - 29.490OFFICER$$

People have two main influences that affect their daily working career, what type of job they do and when they are scheduled to perform these tasks. These influences were individually covered under job classification and shift selection measurements. However, workers may choose to do a specific job in order to receive a more preferred shift schedule or work a less desired shift to obtain a more desired job classification. Equation 23, though not significant, shows the best estimate of this interrelated valuation.[38] The variables that are significant factors differ from the original separate measurements. Relative seniority provides a linear positive influence while minorities perceive a positive gain and union officials see a negative loss in their valuations.

Relative seniority appears as a singular directional influence in contrast to the two individual measurements. Job classification can be achieved through the transfer process, which uses relative seniority. Shift selection is also determined through relative seniority. Individually there might not be enough influence to be significant for each equation; combined together the overall influence of relative seniority becomes a significantly positive factor. Relative seniority allows for the achievement of more desirable classifications and shift schedules, which (by being desired) imply greater value. Thus,

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[38] Adj. R^2 = .203 (sig. = .119)

increased relative seniority provides increased derived value and is portrayed as a positive factor.

Minorities find themselves in a workplace in which work assignment discrimination is eliminated through the use of codified processes such as relative seniority. Their experiences in other workplaces as a whole still present discriminatory practices, albeit to lesser extent than in previous decades (Nelson, 1996; Rapping, 1966). Minority workers working under the collective agreement find that they can achieve desired jobs and schedules based on their relative seniority, independent of and excluded from racial discrimination. This is not to say that all real and perceived discrimination is removed under a collective agreement. There is still some who feel not to be fairly treated because of the "minority group which they belong."[39] However, in spite of some perceived discriminatory practices there is still an overall measured gain that arises for minorities in the workplace compared to the generalized world of work experiences.

Union officials experience a reduction in derived value compared to the rest of the workers. As stated previously, this can be related to the greater involvement in the application and understanding of the workplace practices. This increased knowledge can dampen their valuation in a pessimistic analysis of the true ability of unions to achieve value. Instead of pessimistic valuation, union officials may have a more realistic value determination while other workers overstate their received value from this combined measurement. This issue of union official influence on valuation is interesting to note and is left for future analysis by others.

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[39] Survey Number 80407001

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6.1.8 Total Valuation

Equation 24. Worker Calculation of Total Valuation

$$Val_{Total} = 45.691 + 2.602SA - .656SR_{Calc} + 26.471MINORITY$$

In addition to examine the individualized measurements from workplace value, a comprehensive measurement is done. This is accomplished be deriving a total valuation as an average from the individual components. Equation 24 shows the relevant factors for this calculated value.[40] Absolute seniority and relative seniority are almost equal (β = 0.942, -0.940 respectively) and are both greater than visible minority status (β = 0.578) in determining total valuation. The regression analysis of total valuation narrows the number of independent variables that are significant. Absolute seniority and relative seniority remain as factors with an influence for minority workers.

Additional value perceived by minorities arises as it appears in many of the individual measurements. It is not unreasonable to expect it to also be significant in the total measurement. Again, the significance of this increased valuation could be attributable from the context of discriminatory compensation gaps in the generalized world of work. Another possibility is that there is a greater appreciation for workplace values for minorities whose context is from other countries with lower working conditions. As there is no direct measurement of how connected or removed workers are in their relation to their country of origin, this possible reason remains unanswered.

Seniority influence varies from its two definitions. Absolute seniority proves to be positive while relative seniority is a negative influence. These two variables also have a correlation to each other which can only be determined on a snapshot basis. Current measurement of relative and absolute seniority relationship would indicate that the

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[40] Adj. R^2 = .575****

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overall approach for seniority is a positive one. Absolute seniority is a positive influence that follows the value growth theorized in human capital. Relative seniority also follows human capital theory and explains the tempered, if not negative, growth at the latter part of a worker's career. Once workers achieve certain points of value throughout their career, additional relative seniority becomes irrelevant and thus is perceived as a negative influence. Thus, it is possible to establish a value that can be attached to seniority as well as specifically establish that this value is affected by relative seniority.

6.2 Correlations and Causations

Variables arising out of workplace values can be at times difficult to separate into properly defined categories. Absolute and relative seniority can have some interaction yet be considered as two distinct variables. Union commitment and satisfaction scales have a correlation with workplace values; however, the direction of the causation is difficult to determine. Demographic variables are clearly independent of workplace valuations, except when promotion becomes a factor in family size, and would be causal agents for the workers' individualized measurements. As well there is some interaction between independent variables. These multiple interactions cloud causality determination and conceal some of the true value attributable with relative seniority.

6.2.1 Seniority Ranking

Absolute and relative seniority both interact with workplace values. Absolute seniority, measured in years, provides value through contractually provided items such as additional vacation allotment at predetermined dates. Relative seniority, measured in percentage, provides value through attainment of more desirable items such as selected

vacation dates, transfer to preferred job classifications and shift schedules. Some of this capacity for value is tempered through the requirement of external testing or performance reviews in the achievement of these value items, such as promotions. It could therefore be argued that the actual value derived from relative seniority is more difficult to ascertain then other independent variables.

Equation 25. Relative Seniority as a Function of Absolute Seniority

$$SR_{Calc} = 15.638 + 2.928 SA$$

Equation 26. Absolute Seniority (restated from Equation 25)

$$SA = \frac{SR_{Calc} - 15.638}{2.928}$$

Some of the workplace valuations had both absolute and relative seniority as relevant factors. Absolute seniority was a positive influence while relative seniority had a negative influence. Absolute and relative seniority have an interaction that can only be determined at specific points in time, as the staffing levels and positions change at differing rates than the simple accumulation of calendar years for absolute seniority. Equation 25 shows the relative seniority equation related to absolute seniority from the survey responses.[41] A restatement for absolute seniority would be as portrayed in Equation 26. It is important to reiterate that the absolute and relative seniority equations are not universal, but rather form snapshot equations at the specific time of the survey returns. Relative seniority measurement and analysis requires not only the micro-level of a firm but the microcosm of specific time series.

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[41] Adj. R^2 = .702****

Table 26. Recalculation of SR$_{Calc}$ from SA using Equation 26

Val	SA Slope	SR – Intercept	Adj. SR$_{Calc}$	Adj. Intercept
Vacation	7.114	2.430 – 37.995	0.220	14.865
Classification	1.576	0.538 – 8.417	0.538	8.980
Shift Schedule	3.662	1.251 – 19.558	0.171	44.507
Total	2.602	0.889 – 13.897	0.233	31.794

Evaluating relative seniority to incorporate the value derived from absolute seniority helps examine the directional effects of seniority. Table 26 shows the adjustment required to eliminate absolute seniority from the equations. Previous two-way aspects of seniority all become positive influences for relative seniority. Table 27 shows all values that are derived from relative seniority, including Job Security and Combination which did not originally include absolute seniority. Relative seniority is a factor in a majority of equations and with a positive influence.

Table 27. Valuation Equations involving Relative Seniority

Value	Equation
Vacation	14.865 + 0.220SR$_{Calc}$ + 22.507CHILD
Classification	8.980 + 0.538SR$_{Calc}$ + 30.824OFFICER
Shift Schedule	44.507 + 0.171SR$_{Calc}$ + 9.185CHILD
Job Security	52.495 + 0.506SR$_{Calc}$ + 44.292MINORITY – 54.320OFFICER
Combination	58.501 + 0.264SR$_{Calc}$ + 20.188MINORITY – 25.990OFFICER
Total	31.794 + 0.233SR$_{Calc}$ + 26.471MINORITY

With a standardized independent variable of relative seniority, we are better able to access its influence to the workplace values. As workers become more senior, they receive the greatest increases in job classification and job security. This supports the experiences in the workplace. Those with greater relative seniority will more likely receive a job classification they desire over junior workers. As well, the senior workers have less chance of being laid off (thus having greater job security) than junior workers. Shift and vacation selection are done using relative seniority and the accompanying

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gains, though smaller than job classification and security. Relative seniority provides positive value to workers in a quantifiable analysis.

6.2.2 Demographic Variables

All workers will share commonalities in different demographic categories. These categories generate variables which can be significant in the valuation of relative seniority. Some variables that were anticipated to be significant were not while there some other surprising significant demographic influences. Gender and marital status were not significant for any valuations. The number of children was relevant to vacation and shift selection. A person's age was only relevant to bumping ability. Being a minority was positively significant in a majority of valuations. Being a union official was unexpectedly significant also in a majority of valuations. An additional surprise was that some of these influences were negative. Even with some of the unexpected results, there can be reasonable explanations for the results for each variable.

It was anticipated that gender would be a significant factor. Women see a decreased compensation compared to men and unionization only partially addresses this inequity. (Dulude, 1995). However, this dual differential could also explain the lack of significance. Within the firm, all workers in a classification receive equal wages. Thus it would provide a positive valuation for women if they contrasted this equality to the differential they would encounter elsewhere in the general population. Women tend to enter the workplace later in life, which means they start accumulating seniority later and would be more proportionately the junior workers. A comparison to other workers of equivalent age could cause a negative correlation for women's workplace valuation. It could then be surmised that these two analyses offset each other to the point of

insignificance. Another explanation can be deduced from the recognition of analysis context within the firm. As all workers within a classification and schedule will be relatively within the same seniority ranking, women will see that those workers are receiving similar valuation. Therefore their self-evaluation would not make any discerning differences of workplace value.

Marital status does not provide significant differences in valuation. While there is evidence of different personal subjective happiness based on marital status (Draeger, 2007b), this does not translate into the realm of workplace value. This could be explained by the interpretation that having a partner or not does not affect workplace interpretations like it does for general happiness measurement. The valuation of happiness appears to be attributable to home and personal life while not transcending into workplace valuation.

Workers do not stop being parents when they enter the workplace. Children matter to an adult's leisure time and how it is spent. Those with more children will have a greater obligation for this time. Workers can address the need to have more leisure time to be with their children through vacation and shift selection. While the selection processes are done through relative seniority, the targeting of specific time is partially associated to the number of children at home. The association between children and time away from work appears as a significant valuation.

Human capital theory suggests that workers will see decreased compensation towards the end of their age-earnings career profile. If there is a layoff, workers experience a significant loss of earnings for more than five years afterwards. Older workers have less time to attempt to recover from these types of losses. The codified practice of bumping a junior worker prevents the pain of layoff through the acceptance of

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another job, which could be at a lower wage but not as dramatic of a loss if total job loss were to occur. Thus older workers will appreciate the bumping ability differently than others. Not only does bumping allow workers to mitigate the pains of potential layoff, for older workers it provides for immediate earnings that will be higher than their next best alternative of trying to recover in the external labour market.

Minorities have a different experience in the workplace. They receive lower wages and less opportunity into advanced careers (Cheung, 2005). This experience is also evident (though to a lower extent) in unionized workplaces; at times, the neutrality of a seniority list disadvantages minorities to a greater degree in the areas of transfers and job security (Fantasia & Voss, 2004; Moody, 1988; Singh & Reid, 1998). While their experiences are similar to women's experiences, minorities in the survey placed greater valuation to these parts than their counterparts. There may be a contextual frame to explain this comparison. Winnipeg has strong multicultural support communities, which allow for continued integration and communication with people of similar status. Within this network, workers are better informed about the experiences of others who are not in their firm. Whereas there is no similar support community based on gender, minority workers have the ability to have the additional knowledge of external experiences. Thus, minority workers can understand that promotions and security keep them within a firm receiving higher compensation than other workers of similar ilk. This enhanced knowledge of the alternative can lead them to place greater value on their current workplace functions.

Union officials have different valuations of certain workplace issues than their membership. As officials have a greater involvement in the issues of workplace values,

they could have a different appreciation and corresponding valuation than their fellow workers. An interesting analysis is how their influences, both negative and positive, appeared in different valuations. A negative influence for transfer ability can be explained by the suggestion that officials recognize that seniority is not the only factor, leaving this process to potential managerial arbitrariness with a testing system. However, once a worker has their job classification, union officials positively influence their valuation. This can be due to their expertise in the overall compensation distribution methodology and costing derived for each classification through the collective bargaining process. While layoffs by seniority are a North American unionized norm, union officials have a negative influence on their job security valuation. However, layoffs are distributed not by overall seniority but by classification, department, and schedule. Further, the number of layoffs rest solely with management without need for justification to the workers. This arbitrary authority alienated from the workers, but experienced in the union administration activities, can explain a dampening of job security valuation for union officials. Whether it is a realistic or pessimistic approach, union officials have different experiences and corresponding valuations than their members.

7. Conclusion

Relative seniority is more important than absolute seniority in understanding workers' valuation of their workplace. There still a place for absolute seniority in workplace analysis, acknowledging its easier data collection, but workers themselves are able to provide an accurate measurement of their relative seniority. Workers and researchers can agree that there is value delivered through the employment relationship. However the determination of what is valued and how to measure this value may differ between the two groups. Researchers predominantly deal with available numerical macro-data which focuses on variables that permit comparison of workplaces. These would include age, gender, minority status, and service years. Workers deal with their current individualized context of the specific firm, community, and family life. Their main concerns would be job classifications, vacation selection, shift schedules, and job security. While both groups can identify with the same demographic variables, they differ on their analysis of seniority. Researchers focus on absolute seniority, measured in service years. Workers understand and implement this measurement but also include the usage of relative seniority, with the comprehension of junior and senior status. As relative seniority is calculated within the specific firm, it is only at the micro-level analysis where this variable arises and workers have a better understanding of how it interacts with achieving desirable workplace valuations. Workers' daily lives are affected by relative seniority, which is apparent by their survey responses to workplace valuations.

Workers know when they started with their current employer, as it is a significant event in their lives. From this determination, we are able to get an accurate measurement of absolute seniority. This can also be verified against hiring records to further reduce

any reporting errors. If researchers obtain a firm's seniority list, they can calculate the firm-specific relative seniority function. They could also look to workers for self-reporting on this measurement. Workers can provide this information in two methods. A subjective report would be a Likert style of declaring how junior or senior one is within the firm and an objective report would be to declare how many workers are in the workplace and what number the individual worker is on the seniority list. Both methods prove to be as accurate as the objective analysis done by researchers, and could be more accurate once standard deviations are taken into consideration. Not only do workers know their absolute seniority, they are reliably accurate in their reporting of their relative seniority. The academic research of these variables can be used for data verification, but it would be found that worker's self-reporting provides an accurate measurement of both forms of seniority.

Researchers provide valuation equations based on absolute seniority, but workers will focus more on their relative seniority. Absolute seniority is easier to quantify and for others to understand, which lends itself to the analysis variable of choice for most researchers. Relative seniority is more subjective in nature, but has its role in the firm's interactions. Workers only need to know that there are others junior or senior to them to determine their own potential valuations. A greater number of senior workers means that certain desirable items, such as vacation or shift, may not be currently attainable. A larger number of junior workers give the individual a greater sense of job security, knowing that there are many others to be laid off before it would affect them individually. Both seniority measurements are accurate, but it is the relative seniority that workers apply to

their valuations. Thus, it could be argued that relative seniority is the more relevant variable for examination.

If relative seniority is a better measurement tool for values derived from being in a specific workplace, questions arise as to why it is not the preferred method for researchers. First, the available data found in major survey databanks does not capture this measurement. It is currently not available for researchers during their educational training, so they become accustomed to using absolute seniority in their endeavours. Second, there is additional time and expenses required to obtain the relative seniority variable through individualized firm surveys. These additional costs of time and money would prevent some researchers from getting this data and deter others who could choose absolute seniority as their variable, which is quicker and cheaper to obtain. For this issue, accessibility matters. Finally, there is potential for self-reporting errors that may not be found in other databanks using absolute seniority, and this increased error can filter into research accuracy and relevancy. However, some databank information regarding absolute seniority also relies on worker self-reporting so there is still self-reporting error within current resources. It has also been shown that worker self-reporting of relative seniority can be almost as accurate as absolute seniority and perhaps more accurate than academic determination of relative seniority. The perceived concerns over relative seniority usage are dissuaded once one reviews the actual experience of relative seniority measurement and reporting.

Relative seniority is the more relevant variable for workplace valuation and comparison. Workers receive desirable workplace valuations more based on their relative seniority than their absolute seniority. It is also more relevant for inter-firm comparisons.

A worker with ten years in one firm could have high relative seniority compared to another firm where ten years could only garner a low relative seniority. Items such as vacation selection and job security would have different values for these two workers, who both have the same absolute seniority. This reality is the main thrust for inclusion of relative seniority for workplace valuations. Workers understand they have absolute and relative seniority, though it may be confused if reported simply as seniority. There is the potential to adjust all formulae to solely use either absolute or relative seniority. However, individual firm influence is reduced or eliminated under the reporting method of relative seniority. If eliminating external influences is a goal of prudent research, then relative seniority should be included as another measurement. Further research into improved reporting methods, error elimination and data recording is suggested to making relative seniority a more viable and acceptable variable. Relative seniority can prove to be a more relevant measurement for better data analysis regarding worker valuations and workplace values.

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Appendices

Definitions

Absolute Seniority: an objective measurement of tenure with a firm, usually in years, independent of other workers.

Relative Seniority: a relational, if mathematically calculated, or subjective, if personally observed, measurement using objective seniority to determine a worker's position on the firm's seniority list, which is dependent on the total number of workers and their objective seniority.

Survey Methods

The following pages show the original six page survey plus consent form. Any specific contact points (phone numbers, email address, etc.) have been removed to maintain privacy standards.

SECTION A

This section deals with items that involve using a seniority list. You will be asked to determine how satisfied you were regarding the different items and what value amounts, if any, you place on them. Please respond to each question on its own accord.

1. How satisfied were you with last year's vacation time (i.e. when you actually took it)?
   ○ very dissatisfied   ○ somewhat dissatisfied   ○ neutral   ○ somewhat satisfied   ○ very satisfied

2. What is the value, as a percent of salary, you would place on your vacation selection?
   _____%

3. How satisfied are you with your current job classification?
   ○ very dissatisfied   ○ somewhat dissatisfied   ○ neutral   ○ somewhat satisfied   ○ very satisfied

4. What is the value, as a percent of salary, you would place on your job classification? _____%

5. How satisfied are you with your shift schedule as selected?
   ○ very dissatisfied   ○ somewhat dissatisfied   ○ neutral   ○ somewhat satisfied   ○ very satisfied

6. What is the value, as a percent of salary, you would place on your shift schedule? _____%

7. How satisfied are you with your job security?
   ○ very dissatisfied   ○ somewhat dissatisfied   ○ neutral   ○ somewhat satisfied   ○ very satisfied

8. What is the value, as a percent of salary, you would place on your job security? _____%

9. How satisfied were you with your ability to transfer to another location?
   ○ very dissatisfied   ○ somewhat dissatisfied   ○ neutral   ○ somewhat satisfied   ○ very satisfied
   ○ did not attempt transfer

10. What is the value, as a percent of salary, you would place on your ability to transfer?
    _____%

11. How satisfied were you with your ability to bump after a layoff notice?
    ○ very dissatisfied   ○ somewhat dissatisfied   ○ neutral   ○ somewhat satisfied   ○ very satisfied
    ○ did not attempt bump

12. What is the value, as a percent of salary, you would place on your ability to bump? _____%

13. How satisfied are you with your job classification AND shift schedule (combined)?
    ○ very dissatisfied   ○ somewhat dissatisfied   ○ neutral   ○ somewhat satisfied   ○ very satisfied

14. What is the value, as a percent of salary, you would place on your job classification and shift schedule (combined)? _____%

15. What is your seniority ranking in your workplace?
    ○ very junior   ○ somewhat junior   ○ near the middle   ○ somewhat senior   ○ very senior

16. How many work days did you receive in vacation for last year? _____

17. Of these vacation days, how many of them were you:

    a. Satisfied with?   _____

    b. Neutral to?   _____

    c. Dissatisfied with?   _____

18. For each of the following seniority-related items, please indicate its importance to you:

Mark an (X) in the appropriate box	Not at all important	Not important	Neutral	Important	Very important
a. Vacation selection					
b. Shift selection					
c. Classification selection					
d. Job security					
e. Bumping ability					
f. Transfer ability					

19. For each of the following distribution systems, please indicate its fairness to you:

Mark an (X) in the appropriate box	Not at all fair	Not fair	Neutral	Fair	Very fair
a. Measured Ability Test (i.e. how well you could perform)					
b. Performance Report (i.e. how well you did perform)					
c. Years of Service					

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SECTION B
This section deals with your personal attitudes towards different aspects of working in a location that is unionized and has distinct guidelines and processes. There are no 'right' or 'wrong' responses for attitude questions. Please respond thoughtfully and honestly, as the surveys are anonymous.

State your opinion to the following statements:

Mark an (X) in the appropriate box	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
20. I feel a sense of pride being a part of this union.					
21. Based on what I know now and what I believe I can expect in the future, I plan to be a member of the union the rest of the time I work for this company.					
22. The record of this union is a good example of what dedicated people can get done.					
23. The union's problems are my problems.					
24. A union member has more security than most members of management.					
25. I talk up the union to my friends as a great organization to be a member of.					
26. There is a lot to be gained by joining a union.					
27. Deciding to join the union was a smart move on my part.					
28. It is easy "to be yourself" and still be a member of the union.					
29. Seniority is an investment/benefit owed to me.					
30. Even though he/she may not like parts of it, the union member must "live up to" all terms of the Articles of Agreement.					

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University of Manitoba Seniority Research Survey (Protocol #J2007:100)

Mark an (X) in the appropriate box	Strongly Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Strongly Agree
31. It is every union member's responsibility to see to it that management "lives up to" all the terms of the Articles of Agreement.					
32. It is the duty of every worker "to keep his/her ears open" for information that might be useful to the union.					
33. It is every member's duty to support or help another worker use the grievance procedure.					
34. It is every member's duty to know exactly what the Articles of Agreement entitle him/her to.					
35. It is every union member's responsibility to see that other members "live up to" all the terms of the Articles of Agreement.					
36. Every member must be prepared to take the time and risk of filing a grievance.					
37. Seniority is an important system to eliminate management favouritism.					
38. I am willing to put in a great deal of effort beyond that normally expected of a member in order to make the union successful.					
39. If asked, I would serve on a committee for the union.					
40. If asked, I would run for an elected office in the union.					
41. All in all, I am satisfied with my union.					

Mark an (X) in the appropriate box	Not at all Good	Not Good	Neutral	Good	Very Good
42. How good of a job does your union do in getting better wages?					
43. How good of a job does your union do in getting better fringe benefits?					
44. How good of a job does your union do in improving job security?					
45. How good of a job does your union do in improving safety and health on the job?					
46. How good of a job does your union do in giving members a say in how the union is run?					
47. How good of a job does your union do in telling the members what the union is doing?					
48. How good of a job does your union do in handling members' grievances?					

SECTION C

This section collects demographic information about you and your workplace. Again, all surveys are anonymous so please respond as accurately as possible.

49. What classification & department do you work at? _____

50. How many total unionized employees are at your workplace? _____

51. What number are you on your workplace's seniority list? _____

52. Is this number from the top or bottom of the list?
   ○ Top   ○ Bottom

53. What year were you born? _____

54. What year did you start accumulating seniority? _____

55. What is your gender?
   ○ Male   ○ Female

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56. What is your marital status?
   ○ Married   ○ Common Law (including Same Sex)   ○ Divorced/Separated   ○ Widowed   ○ Single

57. For how many dependent children are you financially responsible?
   ○ 0   ○ 1   ○ 2   ○ 3 or more

58. Are you from a visible minority group?
   ○ Yes   ○ No

59. What is your normal shift schedule?
   ○ Day Shift   ○ Afternoon Shift   ○ Night Shift   ○ Rotation Shift

60. Have you ever been an officer for the union?
   ○ Yes   ○ No

61. If there is any other information you feel that is relevant but overlooked in the survey, please indicate in the space provided:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

62. If you wish to receive a summary of the survey results, please send an email to the anonymous auto-responder email address of ████████████████ for more information.

<div align="center">THANK YOU</div>

Office Use (Please do not mark in this area)

Receiver Init: _____	Receive Date: _____	Verified Init: _____	Receive ID: _____
Coder Init: _____	Coded Date: _____	Verified Init: _____	Code ID: _____
Entry Init: _____	Entry Date: _____	Verified Init: _____	Entry ID: _____

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UNIVERSITY OF MANITOBA

Faculty of Graduate Studies
Department of Economics

Informed Consent Form

Research Project Title: Exploratory Research into the Value of Relative Seniority in the Workplace

Researcher: Darryl Draeger

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The purpose of the research is to examine the value employees assign to their relative seniority: where they are on the list instead of how many years they have. The procedure involves a one-time survey that should take approximately 45 minutes to complete. There is minimal risk to the participants. Confidentiality is maintained as there is no record of the respondent's identity on the survey and consent forms are sent to a separate address. Feedback will be provided with a summary of the results, once all results are compiled. This notice will be placed on the union bulletin board and will be available electronically through an anonymous auto-mailer server. There is no credit or remuneration for researcher, advisor, or respondents.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Darryl Draeger, Researcher:
Jesse Vorst, Advisor:

This research has been approved by the Joint-Faculty Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at ▮▮▮▮▮, or e-mail ▮▮▮▮▮▮▮▮▮▮▮. A copy of this consent form has been given to you to keep for your records and reference.

_____   _____
Participant's Signature   Date

_____   _____
Researcher's Signature   Date

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