

THE IMPACT OF HIGH WORKER'S COMPENSATION PREMIUMS ON NEWFOUNDLAND & LABRADOR

ECONOMY, JOBS, COMMUNITIES

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EXECUTIVE SUMMARY

The average workers' compensation assessment rates on employers in Newfoundland and Labrador have been substantially higher relative to *any* of the other relevant jurisdictions in Canada since 1993, and they have been higher than the average assessment rate across *all* other jurisdictions combined since 1987.

Containing such costs is important for a wide range of reasons including:

- *Employers* are increasingly able to locate their plant and investment decisions in jurisdictions that do not impose excessive regulatory costs, and they are under more competitive pressures to do so.
- The loss of investment also means a loss of jobs for potential *employees*, or lower wages if they are trying to offset the excessive regulatory costs of worker's compensation to retain their jobs.
- *Communities* will also suffer from the lost investment opportunities and the jobs associated with those investments as well as the negative image and reputation as being "unfriendly" to business opportunities. Having workers' compensation costs that are out-of-line with those of other jurisdictions may serve as a signal to perspective employers that a province is unable to contain its costs in this area, and if that is so, they may not be able to contain them in other areas. Workers' compensation costs may just be regarded as the tip of the iceberg.
- Even if the higher costs are used to finance *more generous benefits* to workers, this can have adverse feedback effects on employers because both theory and evidence indicates that higher benefits reduce the incentive for persons on workers' compensation to return to work.
- These adverse work incentive effects mean a *reduction in the supply of labour* that is available to employers. This can further foster the labour shortages that can emanate from other sources such as the retirements from an aging population and the exodus to job opportunities in places like Alberta. Such shortages can inhibit taking advantage of unprecedented opportunities in mega projects and resource developments that are occurring in Newfoundland and Labrador.
- More generous benefits also have perverse effects by enhancing the incentive to make a claim, to make false claims, to contest claims and to remain on a claim for a longer period, and they can reduce the incentive to take proper precautions at the workplace to reduce the risk of injury. Such *additional claims and accidents* foster further higher costs and a self-perpetuating cycle of cost increases.

- Higher benefits also encourage individuals to access workers' compensation as opposed to other *potential substitute programs* including those that are financed by the federal government such as Employment Insurance or the Canada Pension Plan-Disability program.
- In order to contain the payroll tax cost of workers' compensation, governments may *shift the cost to employers* by imposing a *duty to accommodate* the needs of disabled and injured workers at the workplace.
- The same can apply to *vocational rehabilitation* (VR) requirements where the empirical evidence does not generally support the notion that the substantial costs of VR are offset by the benefits of a more rapid and permanent return to work.
- *Experience rating* whereby the premiums an organization pays are related to their accident rates can save on costs by providing an incentive for organizations to take precautions, emphasise health and safety and reduce accidents, allowing them to do this in the cost-effective manner that is best suited for their particular situation. The empirical evidence generally confirms these positive effects.
- Any *unfunded liabilities* in the workers' compensation system can discourage expansion of employment and new employers from entering and having to incur the unfunded liabilities or surcharges to discharge them.
- Even if a substantial portion of the payroll tax initially imposed on employers is *shifted back to workers* in the form of paying lower wages in return for the benefits of the programs, this can still have negative implications for employers through various mechanisms: employers are unable to offer wages that are as high as they would otherwise be able to offer in order to attract workers to fill impending labour shortages; while the wage adjustment period is occurring, the payroll tax does increase labour costs to the firm; and some of that cost increase to the firm may be permanent to the extent that it is not all shifted backwards in the form of wage adjustments. These can lead to reductions in employment and output and to increases in unemployment, and evidence indicates that this occurs.
- Even though *injury rates have fallen* dramatically, costs have not fallen, suggesting that it is very difficult to ratchet-down tax rates once they have been established. Costs may *increase in the future* given the trend towards remaining in the labour force, and the longer-living and aging workforce where disability is more prominent, the incidence and duration of claims are higher, return-to-work is slower, rehabilitation and VR is more difficult, and occupational diseases with a long latency periods have a longer time to appear. Costs may also increase because of the changing nature of claims increasingly associated with syndromes, repetitive strain and musculoskeletal injuries.

- Containing costs within the workers' compensation system of Newfoundland and Labrador is also important because employers in that province often have to "compete" with the *employment insurance* (EI) system to fill labour shortages. Seasonal work interspersed with EI and work in the informal economy may become institutionalized making it difficult for employers to hire workers, and for adjustments to occur in the direction of market forces which can have the twin benefit of reducing unemployment and underemployment in the declining sectors while reducing skill and labour shortage in the expanding sectors.
- A large number of *business surveys* have documented the negative *perceptions* that employers have of payroll taxes relative to other taxes, and of the potential for investment and job creation if such taxes were cut. And it is perceptions that can influence investment and the associated job creation.
- *Government reports* on competitiveness, productivity, innovation and job creation have also commented on the negative effects of payroll taxes on those outcomes.
- A wide range of *macro-econometric studies* involving different data and methodologies are fairly uniform in finding negative effects of payroll taxes on a various aggregate or macroeconomic indicators. These studies are also generally quite sophisticated in their techniques and generally done by academically respected persons or organizations that do not have an "axe to grind" or a advocacy position to support (e.g., IMF, Bank of Canada, PEAP). While their studies invariably contain qualifications, their conclusions are fairly uniform on the negative effects of payroll taxes on various aggregate outcomes. In that vein, they also support the previously discussed "micro" analysis that focused on the implications of excessive costs in this area.
- Newfoundland/ Labrador is perched on the *opportunity* for a permanent transition from a "have-not" economy to a "have" economy given the new developments that are occurring in that province. Reforming the workers' compensation system will be important in that transition not only in its own right, but also because of the signal it will send to perspective employers and the real rather than artificial job creation associated with that signal. There seems no better time for action in this important area.

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INTRODUCTION

Employer cost considerations are increasingly important in a world characterized by global competition and the increased ability of firms to locate their plant and investment decisions (and the associated jobs) in jurisdictions that do not impose excessive regulatory costs. The key issue here is whether the regulatory costs are “excessive.” Regulations obviously serve a purpose and this is certainly the case with workers’ compensation. Provincial workers’ compensation systems in Canada were first established in the early 1900s essentially as an insurance scheme where injured workers were provided compensation for workplace injuries on a “no-fault” bases without having to go through the expensive, uncertain and lengthy process of tort liability through the courts.¹

That earlier system required injured workers to sue their employers for negligence. It was an expensive system, as is invariably the case when lawyers and the courts are involved. It also led to long lags between when the injury occurred and an award was received if received at all. And while it sometimes involved large awards for the few who received them, it generally involved no awards for many workers who could not prove negligence on the part of the employers. There was also an imbalance of power in that employers generally had “deeper pockets” to contest the claims.

In the early 1900s that system was replaced by a “no-fault” insurance system where injured workers were provided compensation for workplace injuries in return for giving up their right to sue their employer for negligence. The workers’ compensation system was financed by a payroll tax placed on employers and where different rates were charged depending upon the rate group that generally approximated industry categories. Because workers’ compensation is under provincial jurisdiction, this has given rise to considerable variation in costs and associated features across the different jurisdictions in Canada. It is this variation that can provide a benchmark against which costs can be regarded as “excessive.” That is, costs can be regarded as excessive if the payroll tax on employers used to finance workers’ compensation is high relative to other jurisdictions and that cost cannot be justified on the basis of other factors within that jurisdiction.

The purpose of this paper is to examine the cost of the workers’ compensation system in Newfoundland and Labrador compared to other jurisdictions in Canada. The paper begins with a comparison of the costs in Newfoundland and Labrador compared to other jurisdictions in Canada. It then moves to a discussion of the implications of higher

¹ For more detail see Chaykowski and Thomason (1995), Hyatt (1995), Shainblum, Sullivan and Frank (2000) and Thomason, Vaillancourt, Bogyo and Stritch (1995).

costs and why the cost comparisons matter. The paper concludes with a general summary and concluding comments.

COST COMPARISONS

As indicated in Table 1, the average workers' compensation assessment rate for Newfoundland and Labrador (NFLD) in 2011 is the highest in Canada where the rates range from a low of 1.22 in Alberta to 2.75 in NFLD with the average rate across all other provinces/ territories being 1.94.² As indicated in Figure 1, NFLD has the dubious distinction of having had the highest workers' compensation payroll tax rate compared to all other jurisdictions since 1993, with the exception of the years 2007-2010 when it was slightly eclipsed by the Yukon and Northwest Territories. In comparing rates across jurisdictions, employers would not likely regard the Yukon and Northwest Territories as being relevant comparators given the unique circumstances of that jurisdiction; hence, it is meaningful to say that NFLD has had the highest rate compared to other relevant comparator jurisdictions since 1993. Alberta may be the most comparable jurisdiction given the emphasis on resource extraction and the competition for labour from that province, with the 2.75 rate in NFLD being over twice the rate in Alberta.

As indicated in the figure accompanying Table 1, relative to the average assessment rate across all other jurisdictions, the rate in NFLD is considerably higher and this has been the case since 1987. The gap is large, peaking in 2002 when the rate was 3.5 in NFLD, almost double the average of 1.82 in the other jurisdictions. The gap still remains high when the rate levelled off between 2006 and 2011 at about 2.75 in NFLD compared to an average of slightly above 2 in the other jurisdictions.

Comparisons of average assessment rates across jurisdictions as in Table 1 can be misleading. They can be affected by a wide range of factors including: the industrial composition of the workforce; the percent of the workforce covered; earnings covered; health conditions covered; surcharges for such factors as unfunded liabilities, health and safety associates, and inspectorates; and differences in firm sizes. There does not appear to be any literature on comparisons across jurisdictions that adjust for these factors so that comparisons can be made on an "apples-to-apples" bases.

Table 2 and the accompanying figure provide such an "apples-to-apples" comparison for the top 10 industries in descending order of employment in NFLD for rate groups that are common across jurisdictions (except for PEI and Manitoba that often did not have employees in those rate groups). The rates in NFLD are considerably higher than the average rates across *all other jurisdiction* in eight of the ten sectors. They are slightly lower in the construction sectors (buildings and heavy and civil engineering) in large part because of the extremely high rates in Quebec and Ontario in those sectors. The highlighted entries indicate that rates that were higher than NFLD prevailed in only 14 of the 80 cases, and 8 of those are in Quebec and a further 4 in Ontario where an

² The average is an unweighted average excluding Newfoundland and Labrador, not weighted by the covered employment in each province. In making comparisons of workers' compensation costs across jurisdictions, employers would likely look at the simple rate and not do any weighting by employment.

unfunded liability accounts for almost one-third of the rate (documented subsequently). In the other jurisdictions that are more comparable to NFLD in terms of geographic proximity and emphasizing resource extraction (e.g. Alberta), the rates are much lower.

WHY COST COMPARISONS MATTER

Lost Investment and Jobs

As indicated previously, employers are increasingly able to locate their plant and investment decisions in jurisdictions that do not impose excessive regulatory costs. Those jurisdictions can be offshore in other countries, or onshore in other jurisdictions within a country. Capital, both physical and financial, is increasingly mobile and able to take advantage of market opportunities and cost considerations. Employers are not only more mobile and better able to alter their investment decisions, but they are also under more pressures to be cognizant of the cost considerations because of greater competitive pressures arising from various inter-related sources such as global competition, deregulation, privatization, trade liberalizations and the decline of protective tariffs,. As stated by Betcherman (1993, p. 14): "Where 'footloose' capital can change its landing spot, does an individual country realistically have the room to manoeuvre to implement a policy regime that is more costly than those of its neighbours and competitors?" Or as stated by Schott (1992, p. 240): "Countries are now competing in a global beauty contest to see which have the most desirable economic policies. The judging is being done by investors -- both domestic and foreign -- who vote with their capital."

In such circumstances, excessive regulatory costs have implications not only for *firms* that find it increasingly difficult to absorb the costs given their increased competitive pressures but also for *consumers, employees and communities*.

For *consumers*, any excessive costs can lead to price increases, although in a world of greater competition, consumers may simply "shop elsewhere" and make purchases from producers in jurisdictions that do not have excessive regulatory costs.

For *employees*, excessive regulatory costs can jeopardize their employment if firms lose sales or market share because the costs compel them to raise prices. Alternatively, to retain their jobs they may have to accept lower wages than they otherwise would receive. In essence, the demand for labour is a derived demand, derived from the demand for the product and services produced by firms. If the demand for those products or services is reduced because of price increases emanating from the cost increases, then this filters back to workers in the form of wage and/or employment reductions. Somewhere, the system has to absorb excessive regulatory costs -- as the expression goes: "there is no such thing as a free lunch."

Communities will also feel the effects of excessive regulatory costs. This is obvious in the form of lost investment opportunities and the jobs associated with those investments as businesses relocate to jurisdictions that do not have such excessive

regulatory costs. It is less obvious, but no less important, when the communities develop an image and reputation as being “unfriendly” to business opportunities. Having workers’ compensation costs that are out-of-line with those of other jurisdictions may serve as a signal to prospective employers that a province is unable to contain its costs in this area, and if that is so, they may not be able to contain them in other areas. Workers’ compensation costs may just be regarded as the tip of the iceberg.

Even if the higher costs are used to finance more generous benefits to workers, this can have adverse feedback effects on employers. Higher benefits can reduce the incentive for persons on workers’ compensation to return to work. This is so for two reasons -- respectively, the income and substitution effects of basic economic theory. First, the income received from workers’ compensation would enable them to afford not to have to return to work. Second there is little or no monetary incentive to return to work since a benefit replacement rate of say 80% means that that they would only increase their income by 20% by returning to work. Since workers’ compensation benefits are not taxable and returning to work can involve worker related expenses, an individual may be worse off economically by returning to work. In essence, the monetary gains from returning to work are negligible or zero or perhaps even negative.³ These are the inevitable results from any insurance scheme that replaces lost income, and workers’ compensation is essentially such an insurance scheme with very high income replacement rates.

Reduced Labour Supply Fostering Shortages

These adverse work incentive effects mean a reduction in the supply of labour that is available to employers. This can further foster the labour shortages that can emanate from other sources such as the retirements from an aging population (the leading edge of the baby-boom is now in its mid 60s) and the exodus to job opportunities in places like Alberta. For provinces like Newfoundland and Labrador the shortage issue is particularly acute since it can inhibit taking advantage of unprecedented opportunities in mega projects and resource developments like the Long Harbour Development, Voisey’s Bay, Lower Churchill and Hebron, and the Genesis initiative. In essence, employers can be hit with a double whammy: direct payroll-tax costs to finance the system, and indirect costs stemming from labour shortages that can be fostered by adverse work incentives.

Vicious Circle of Enhanced Claims and Reduced Precautions

More generous benefits can also have a perverse effect by enhancing the incentive to make a claim⁴ or to contest a claim or to remain on a claim for a longer period,⁵ and

³ Canadian evidence on the reduced incentive to return to work when benefits are higher is given in Butler, Johnson and Baldwin (1995), Hyatt (1996) and Johnson, Baldwin and Butler (1995).

⁴ Canadian evidence on increased claims associated with higher benefits is given in Bruce and Atkins (1993), Lanoie (1992), Lanoie and Streliski (1996) and Thomason and Pozzebon (1995).

they can reduce the incentive to take proper precautions at the workplace to reduce the risk of injury. They can even create the incentive to make false claims.⁶

Such false claims are more feasible given that the injuries of the new world of work are often ones that are difficult to assess and monitor such as with repetitive strain and musculoskeletal injuries or syndromes as opposed to physical accidents that were more common in the old world of work. These additional claims and accidents foster further higher costs and a self-perpetuating cycle of cost increases. In such circumstances employers can be hit with a triple whammy: direct payroll-tax costs to finance the system; indirect costs stemming from labour shortages that can be fostered by adverse work incentives; and further costs associated with any reduced incentive to take proper precautions at work (e.g., wearing protective clothing, holding handrails and lifting properly) or increased incentive to file claims including false claims.

Program Substitution

A fourth whammy can occur if the higher benefits encourage individuals to access workers' compensation as opposed to other programs – a phenomenon known as forum shopping or program substitution. The cost can fall on the employers of a particular province if the other programs are ones that are otherwise born by the federal jurisdiction as is the case with Employment Insurance (EI) or the Canada Pension Plan-Disability (CPP-D) program. Obviously eligibility and other requirements can preclude complete substitution across programs. Nevertheless, there are times when such substitution is possible for some individuals, and this can mean that more generous benefits can foster further access which can lead to additional costs.⁷ This can be an issue especially for workers' compensation where the income replacement rates are in the neighbourhood of 80% or more, compared to programs like Employment Insurance where the income replacement rate is around 55%.

⁵ Canadian evidence on higher benefits fostering longer durations on claims and remaining out of the labour force were found in Campolieti (2001c, 2004), Dionne and St. Michel (1991), Dionne, St. Michel and St. Vanesse (1995), Fortin and Lanoie (1992), Fortin, Lanoie and Laporte (1996), Johnson, Butler and Baldwin (1995), Kralj (1995), and Lanoie and Streliski (1996).

⁶ Indirect evidence of false reporting is given by the fact that the longer duration on claims tended to occur on difficult-to-diagnose injuries and diseases, where it is more difficult to monitor if the claim is real or false. Canadian evidence on this is given in Bolduc, Fortin, Labrecque and Lanoie (2002), Dionne and St. Michel (1991), Dionne, St. Michel and Vanesse (1995) and Fortin, Lanoie and Laporte (1996).

⁷ Canadian evidence on program substitution is discussed in Bolduc, Fortin, Labrecque and Lanoie (2002) and Fortin and Lanoie (1992, 2000). The substitution was most prominent for cases that are difficult to diagnose and hence to control the substitution. Interestingly, there was no evidence of program substitution in Quebec where there would be no cost saving from off-loading to other programs run by a different level of government since Quebec has responsibility for all of the programs (Campolieti and Krashinsky 2003; Robson, 1996, p. 26).

These are the typical “moral hazard” problems that plague all insurance markets that replace losses – in this case, the loss of income from work. They are not meant to imply that all workers or even many would take advantage of the system and remain away from work, or file false claims, or not take proper precautions, or substitute away from other programs. All that is required is that *some* would do so on some of these margins, and that seems a more reasonable assumption. It is also one that is borne out by the evidence as indicated previously. That evidence referred to Canadian studies. Similar results are found in an extensive number of US studies indicating that higher benefit replacement rates are generally associated with an increased frequency and duration of claims as well as not returning to work, and increases in both real and false reporting of claims.⁸ There is also evidence that the long-run effects are even more pronounced in that even if a person returns to work, they are more likely to make subsequent claims.⁹ This self-perpetuating aspect, of course, can add to the cost of the system.

Accommodation Requirements

In order to contain the payroll tax cost of workers’ compensation, governments can have an incentive to indirectly *shift the cost to employers* by imposing a duty to accommodate the needs of disabled and injured workers at the workplace. This is especially likely when the monetary incentives to return to work are reduced as discussed previously. In such circumstances, regulatory requirements are often used when monetary incentives are reduced. Such accommodations can reduce the likelihood that a disabled worker would have to leave the workforce and enter the rolls of workers’ compensation, and they can foster the return-to-work of such workers. They can, however, also add a parallel cost to the system.

The duty to accommodate requires employers to provide accommodation up to the point of “undue hardship”. The requirement can be quite onerous, for example, requiring employers to seek outside sources of support, amortize the cost over a long period, and borrow the money if necessary. Even if the cost of each accommodation is not large on average, it can impose more substantial cost in the form of managerial time

⁸ US studies on the effect of benefit rates in workers’ compensation are reviewed in Berkowitz and Burton (1987), Burton (1988), Ehrenberg (1988), Fortin and Lanoie (2000), Gunderson and Hyatt (1998b), Havemen and Wolf (2000), Kneisner and Leeth (1995), Krueger and Meyer (2002), Moore and Viscusi (1990) and Worrall and Butler (1986). US Studies include: Bartel and Thomas (1985), Butler (1983), Butler, Gardner and Gardner (1997), Butler and Worrall (1983, 1985, 1991a, 1991b), Chelius (1974, 1977, 1982, 1983), Chelius and Kavanaugh (1988), Chelius and Smith (1983, 1993), Curington (1986, 1994), Johnson (1983), Johnson and Ondrich (1990), Kneisner and Leeth (1989), Krueger (1990a, 1990b), Krueger and Burton (1990), Leigh (1985), Meyer, Viscusi and Durbin (1995), Moore and Viscusi (1990), Neuhauser and Raphael (2001), Ruser (1985, 1991), Thomason (1993a, 1993b), Worrall and Appel (1982), Worrall, Durbin, Appel and Butler (1993) and Worrall and Butler (1988, 1990).

⁹ Canadian evidence on the importance of recurrent spells is discussed in Butler, Johnson and Baldwin (1995), Campolieti (2001a, 2001b, 2001c, 2002), Fawcett (1999), Johnson, Baldwin and Butler (1998) and Johnson, Butler and Baldwin (1995). US evidence is discussed in Burkhauser and Daly (1996).

devoted to the issue.¹⁰ Accommodation requirements can also give rise to complications in worksites with a collective agreement in that they may conflict with seniority provisions within the bargaining unit, in which case the employer may be required to find work outside of the unit. Accommodation requirements can also have the unintended consequence of making employers reluctant to hire disabled workers knowing that they may be required to undertake costly accommodation requirements for such workers.¹¹

Vocational Rehabilitation

Requirements to undertake vocational rehabilitation (VR) to facilitate a return to work are another set of regulatory requirements that are often invoked when the monetary incentives to return to work are minimal as is the case with workers' compensation. In essence, VR should be regarded as an integral ancillary cost of the workers' compensation system. VR requirements are often imposed on persons who are in receipt of workers' compensation as a condition for them to continue to receive the income support. The rationale is for VR to offset the effect of the person's injury and restore them to their pre-injury position so they can return to their original job or to suitable and available work preferably with their time-of-accident employer. VR is often resisted by persons on workers' compensation, however, especially when a high benefit replacement rate provides little or no monetary incentive to return to work.

VR can also be quite costly, and this cost has to be paid for somewhere in the system, unless it is offset by the savings in payments if VR recipients returned to work sooner. The empirical evidence, however, does not generally support the notion that the substantial costs of VR are offset by the benefits or a more rapid and permanent return to work. For example, Allingham and Hyatt (1995) find that VR under workers compensation is associated with a reduced rather than increased probability of returning to work although this largely reflects the reverse causality from the fact that the most severely disabled take VR. Brooker et al. (2000) find that VR facilitates the return-to-work *only* if it is accompanied by other policies that can be costly through employer support, injury prevention policies and on-going evaluation.

Studies based on US data tend to find that providing VR to persons with disabilities tends to have only small benefits that generally do not exceed the costs.. This is the case for VR programs in general¹² as well as VR under the Social Security

¹⁰ Accommodation issues are discussed in Gunderson (1992), Gunderson and Hyatt (1996) and Gunderson, Hyatt and Law (1995a, 1995b).

¹¹ This unintended consequence is documented and discussed in Acemoglu and Angrist (1998), Autor and Duggan (2003), DeLeire (2000a, 2000b), Oi (1991), Rosen (1991) and Weaver (1991).

¹² US studies of general VR programs include Dean and Dolan (1991a, 1991b), Dean, Dolan and Schmidt (1999), Skaburskis and Collignon (1986) and US General Accounting Office (1993).

disability pension system¹³ and especially when cost-benefit analysis is conducted.¹⁴ If VR is provided, however, it is best to provide it early in the process (Gardner 1988).

Experience Rating

One potential avenue for cost-saving in this area is to utilize experience rating whereby the premiums an organization pays are related to their accident rate history. This is a well-established insurance principle, and workers' compensation is essentially a system of insurance. Experience rating provides an incentive for organizations to take better precautions, emphasise health and safety and reduce accidents. They can do so in any of a variety of ways: provide health and safety training; alter the workplace to improve health and safety; give health and safety awards for good performance in that area; add health and safety issues into the performance reviews of supervisors and managers; and discipline employees for safety infractions. The improvements to health and safety at the workplace can save on costs to the whole system and do so in a positive way – by providing a safer workplace and reducing accidents.

A virtue of experience rating is that it provides flexibility by leaving it up to individual employers as to how best to provide a safer workplace so as to save on premiums (Kralj 2000). They can do with whatever combination of actions discussed above is best suited in a cost-effective manner for their particular situation. Experience rating provides the proper incentive leaving it up to individual employers as to how best to achieve their desired outcomes.

The empirical evidence generally confirms that experience rating in workers' compensation has these positive effects.¹⁵ Canadian evidence, for example, indicates that experience rating reduces the incidence of injuries and workers' compensation claims¹⁶ as well as the severity of injuries and hence the duration of claims.¹⁷ It also prompts firms to implement measures at the workplace to reduce workplace accidents and injuries.¹⁸

¹³ US studies of VR in the Social Security disability program include Berkowitz (1988, 1996), Berkowitz and Dean (1996), Hennessey and Muller (1994), US General Accounting Office (1987, 1994), although more positive effects were found in Hennessey and Muller (1995).

¹⁴ Benefit cost studies of Social Security VR include Berkowitz, Harding, McConnell, Rubin and Worrall (1982), Berkowitz and Dean (1996) and McManus (1981).

¹⁵ Fortin and Lanoie (2000), Hyatt and Thomason (1998) and Kralj (2000) review the general evidence on experience rating.

¹⁶ Bruce and Atkins (1993) and Lanoie (1992b) provide evidence indicating that experience rating reduces injuries and claims.

¹⁷ Thomason and Pozzebon (2002) find that experience rating leads to a reduction in the duration of claims as well as claims cost, with more mixed evidence found in Kralj (1995) and Thomason (1993a).

¹⁸ Thomason and Pozzebon (2002).

In the US, experience rating is more common and there is a more extensive literature evaluating its impact. That literature confirms the Canadian results in that experience rating tends to reduce the incidence of injuries and claims¹⁹ as well as the severity and duration of injuries and claims.²⁰

Intergenerational Transfers of Unfunded Liabilities

The payroll tax on employers used to finance workers' compensation has elements of a pay-as-you-go system to the extent that *current* employers pay the benefits of those who are injured at the workplace usually of *previous* generations of employers. As with all pay-as-you-go systems there is a temptation for current employers to save on their payroll tax by not fully funding their expected future obligations. This can lead to substantial unfunded liabilities where the funds available are insufficient to meet the expected future obligations. In such circumstances redistributive intergenerational transfers are occurring where current employers are subsidizing previous generation of employers who did not make sufficient contributions to cover the benefit obligations arising from their accidents and diseases (Gunderson and Hyatt 2000). This can lead to costly surcharges having to be imposed to discharge the unfunded liability, as is the case with Ontario where the surcharge is about 27% of the current payroll tax; that is, the 2012 tax in Ontario is 2.40 but it would be reduced by 0.64 to 1.76 if there were no unfunded liabilities to deal with.²¹ NL also has a surcharge of \$0.25 since 2009, projected to be in place for some time until the funded position of the Commission reaches 110%. The unfunded liability can also lead to a continuation of foisting off the liability onto future generations of employers, which can discourage expansion of employment and new employers from entering and having to incur the unfunded liabilities.

¹⁹ US evidence that experience rating reduces injuries and claims is given in Butler and Worrall (1988), Chelius and Kavanaugh (1988), Durbin and Butler (1998), Harrington (1988), Moore and Viscusi (1989), Ruser (1985, 1991 1993) and Worrall and Butler (1988).

²⁰ Butler and Worrall (1988), Chelius and Kavanaugh (1988), Krueger (1990b) and Ruser (1985) provide US evidence indicating that experience rating is associated with reductions in claim durations or costs.

²¹ This calculation is based on information given in Eckler Consultants and Actuaries (2011, p. 20). In their analysis of the unfunded liability, Busby and Poschmann (2012) indicate that the unfunded liability in Ontario would be about 60% higher than the reported liability if it were based on fair-value accounting methods that would discount the future liabilities at an appropriate discount rate rather than the 7% rate that is used. They indicated, that the true liability implies "a shortfall of about \$4,100 per insured worker in Ontario." (p. 1). The crises nature of the unfunded liability in Ontario is also discussed in Nixon (2009) and the broader implication for younger generations and for new firms and job creation are outlined in Gunderson and Hyatt (1998a, 2000).

Ultimate Incidence of the Payroll Tax

As with all payroll taxes, the ultimate incidence of the tax need not be where it is first imposed. Taxes imposed on employers potentially can be shifted *forward to consumers* in the form of higher product prices or shifted *backwards to workers* in the form of lower pay in return for the benefits they receive from the program. In a world of competitive product markets and global competition it is very difficult to shift the taxes forward to consumers – they will simply shop elsewhere. In such circumstances, most of the tax is likely shifted backwards to the more immobile factor of productions (i.e., workers) in the form of receiving lower wages in return for the benefits of the programs. The empirical evidence suggests that the majority of payroll taxes are shifted backwards to workers *in the long run*.²² There is considerable controversy, however, as to the extent of such cost shifting, with estimates ranging from 0 to 100%. Based on Canadian data on private-sector collective-bargaining agreements, Wilton and Prescott (1993, p. 35), for example, found that “employers have *not* been able to shift increases in payroll taxes for UI, CPP/QPP and WC onto workers in the form of lower wages.”

For employers, however, even if there is cost shifting this means that they are unable to offer wages that are as high as they would otherwise be able to offer in order to attract workers to fill impending labour shortages. In essence, they face costs either in the form of a high payroll tax or in terms of recruiting difficulties associated with their paying lower wages to compensate for the payroll tax. In that vein, payroll taxes are “killers of jobs” or “killers of wages” – pick your poison.

The previous discussion refers to a long-run adjustment in wages in response to a payroll tax. While that adjustment period is occurring, the payroll tax does increase labour costs to the firm and some of that cost increase to the firm may be permanent to the extent that not all is shifted backwards in the form of wage adjustments. Over that period, which may be for five years or longer, the cost increases to the firm will lead to reductions in employment and output and to increases in unemployment (Baran 1996; Dungan 1998, 2000). As well, to the extent that not all of the costs are ultimately shifted backwards, the cost increases will lead to more permanent effects on employment and output in the long run.

Potentials for Future Increasing Costs

Accident rates are falling substantially in workplaces reflecting a variety of factors including an emphasis on health and safety at the workplace, and the shift from blue-collar work where accidents are more prominent towards white-collar work where they are less prominent. In spite of these changes, the costs of the system have not fallen.

²² The factors that can influence such cost shifting are outlined in Gunderson (2008) with Canadian evidence provided in Abbott and Beach (1997), Dahlby (1993) and Kesselman (1997, 2001) and Lin (1999).

It seems very difficult to ratchet-down payroll tax rates once they have been established, even if accident rates have declined dramatically.

While accident rates have declined substantially there are other factors that can give rise to cost increases in the future and that suggest that monitoring of costs are important. The workforce is aging with the leading edge of the large baby-boom population, born in the period 1946-66, is now in their mid 60s. The population is also living longer given the increase in life-expectancy. As well, individuals are working longer as the trend towards early retirement has reversed itself since the mid 1990s. These factors mean that larger proportions of the workforce are in the older age brackets where disability is more prominent, the incidence and duration of claims are higher, return-to-work is slower, and rehabilitation and VR is more difficult.

These can substantially raise the costs of the worker's compensation system. They can also foster unfunded liability problems associated with the pay-as-you-go nature of the funding system since the claims liabilities of this large cohort of older workers will have to be funded by a smaller cohort of younger workers. This will place an additional financial burden on younger generations of workers – a burden that is already looming through health expenditures for the aged, eldercare responsibilities, government budget deficits, slow productivity and real wage growth and declining opportunities for the life-time jobs that were normal for their parents. The longer life expectancy also means that occupational diseases with a long latency periods have a longer time to appear.

Cost containment in the workers' compensation system will also likely be more difficult given the changing nature of the claims. Former claims associated with blue-collar accidents and physical injuries in manufacturing have given way to claims in white-collar jobs that often associated with syndromes, repetitive strain and musculoskeletal injuries (Shainblum, Sullivan, and Frank, 2000). They are often multi-causal, arising from issues associated not only with the workplace (for which workers' compensation is responsible) but also with pressures from outside of the workplace as well as genetic and lifestyle factors. Many occupational diseases and syndromes also have a long latency period for the results to occur.

Cost Issues Interacting with Other Factors

Containing costs within the workers' compensation system of Newfoundland and Labrador is important not only for the reasons discussed, but also because employers in that province often have to "compete" with the employment insurance (EI) system to attract labour to fill labour shortages. With features of EI such as extended benefits in regions of high unemployment and special benefits for self-employed fish harvesters, patterns of seasonal work interspersed with EI and work in the informal economy may

become institutionalized making it difficult for employers to hire workers for full-time work.²³

Reliance on transfer payments like EI can be particularly destructive since they involve *passive income maintenance* that can discourage adjustment in the direction of basic market forces rather than *active adjustment assistance* that can encourage adjustment in the direction of market forces. Passive income maintenance programs can encourage individuals to remain in declining sectors and regions rather than acquire the skills to move to expanding sectors and regions. This, in turn, can foster a self-perpetuating “bad equilibrium” where the economy becomes geared to receiving transfer payments and artificial job creation rather than being geared to new market opportunities. In contrast, active adjustment initiatives can have the twin benefit of reducing unemployment and underemployment in the declining sectors while reducing skill and labour shortages in the expanding sectors.

Employers in Newfoundland and Labrador are also increasingly competing with provinces like Alberta for workers in the resource sector, and they will be competing with Nova Scotia for skilled labour given the recent shipbuilding contracts that were awarded in that province.

In such circumstances, fostering internal efficiency as a precondition to be competitive externally becomes crucial. Newfoundland and Labrador are perched on the opportunity for a permanent transition from a “have-not” economy to a “have” economy. Reforming the workers’ compensation system will be important in that transition not only in its own right, but also because of the signal it will send to prospective employers and the real rather than artificial job creation associated with that signal.

MACROECONOMIC OR AGGREGATE ECONOMIC IMPACT

The previous discussion referred to the impact that the high cost of workers’ compensation has on various stakeholders – employers, workers and communities. Such payroll taxes can also have macroeconomic or aggregate impacts on the economy of a province.

A number of studies have provided information that can shed light on the impact of payroll taxes on aggregate economic indicators. The studies provide multi-lines of evidence in that they involved different data sets and methodologies. Their results are summarized here, providing direct quotes of their conclusions as much as possible.

²³ Concerns with the distortions fostered by the EI system in Newfoundland and Labrador have been raised in a number of internal studies including those by Cashin (1993), House (1986) and May and Hollett (1995). Particular concerns have been raised over the possibility that youths alternating between short-term and often artificial jobs may become a way of life.

Surveys of Employers

A number of surveys of employers have documented their negative perception of payroll taxes and their belief that reducing payroll taxes would be extremely important in fostering new investment and its associated job creation. These surveys often were conducted in the early 1990s when payroll taxes were rising substantially. While perceptions need not capture the reality of a situation, the fact remains that employer investment decisions (and the associated job creation) are affected by perceptions and especially by perceptions that may reflect a broader attitude of government towards business.

For example, the survey by the Canadian Chamber of Commerce (1994) indicated that payroll taxes ranked second only to deficit and debt reduction as the best way for governments to foster sustainable business investment and the job creation associated with that investment. The survey by the Canadian Federation of Independent Business, CFIB (1996) indicated that slightly over half of their members (small and medium size businesses) would increase their new hiring if payroll taxes were reduced. A similar number (52 percent) was reported in a Quebec survey by the Alliance des manufacturiers et des exportateurs du Québec (1996). In a later survey by the Canadian Federation of Independent Business, CFIB (2007), 63 percent rated payroll taxes as affecting the growth of their business, and this was more than any other tax (54% for corporate taxes; 47% for property taxes; 43% for personal income taxes; and 42% for sales taxes).

In the U.S. in a rare example of bi-partisan support, both the House of Representatives and the Senate recently (February 2012) passed legislation proposed by President Obama extending the payroll tax cut that had been instituted earlier. Clearly both Republicans and Democrats felt that the continuation of the payroll tax-cut was desirable to foster the investment and job creation that could help the recovery.

Government Reports on Competitiveness, Productivity and Innovation

A number of government reports have echoed these concerns with rising payroll taxes around the time when payroll taxes began to rise dramatically. The HRDC (1994) report on *Improving Social Security in Canada*, for example, emphasized that payroll taxes reduce employment by being a tax on the labour input. The report states (p. 50):

“High employer and employee premiums discourage job creation. Payroll taxes are generally a drag on employment... During a prolonged recession, this tax on jobs is increasing precisely at the time when jobs are most scarce and businesses are least able to bear the tax.”

Industry Canada (1994) in its report on *Building a More Innovative Economy* similarly emphasised the perverse effects of payroll taxes on curbing job creation, especially in recessions when job creation is needed most.

Finance Canada (1994), in its report on *A New Framework for Economic Policy*, similarly emphasized that such a tax on the labour input would raise labour costs to employers and hence discourage new job creation and foster increased unemployment. The report says (p.21, 22) states:

“The payroll tax drives a wedge between the two [the after-tax wage paid by the employer and wage received by the employee]. This makes a wage bargain harder to reach and thus raises unemployment relative to the situation where there is no tax, or a lower tax.”

Coe, IMF Study

In a study for the International Monetary Fund, Coe (1990) provides econometric estimates the determinants of the unemployment rate in Canada and finds (p. 113):

“The rise in payroll taxes is estimated to have increased the natural rate by about 1.5 percentage points from 1971 to the late 1970s, and by about another 1 percentage point since then.”

DiMatteo and Shannon

DiMatteo and Shannon (1995) provide econometric estimates of the effect of payroll taxes on real wages and employment in Canada over the period 1958-1992. They find (p. 19):

“These results suggest that the employment effects of payroll taxes are non-trivial. Solving the estimated equations for the long-run effect of a one per cent rise in the average payroll tax rate on employment indicates a rise in real wage costs [to employers] of 0.56 per cent and a decrease in employment of 0.32 per cent in the long run (Table 9). The wage received by workers would fall by 0.44 per cent. Using 1994 as the base year, in the long run about 40,600 jobs would have been lost by such a policy action.”

DiMatteo and Shannon (1995, p.19, 20) conclude:

“The overall evidence is consistent with the view that payroll taxes reduce employment. The fact that since the 1960s the persistent upward trend in unemployment has been accompanied by rising payroll tax rates is probably not an entirely coincidental relationship.”

This substantial rise in payroll taxes in Canada is documented, for example, in Lin, Picot and Beach (1996).

DiMatteo and Shannon (1995) suggest why payroll taxes may have risen in spite of their adverse effects. They state (p. 20):

“Payroll taxes have grown to become the third most important source of government revenue after personal income taxes and consumption taxes. Given the unfunded liability problems in C/QPP and the workers’ compensation schemes in some provinces as well as fiscal problems at both the provincial and federal level, governments may attempt to further exploit this tax base. In addition, the relatively hidden nature of employer payroll taxes provides a further incentive for their use given the current climate of resistance to visible tax increases.” In essence it is politically easier to “sell” an increase in payroll taxes rather than other taxes.

They also provide evidence that the payroll taxes disproportionately affect relative disadvantaged low-wage workers compared to higher-wage workers in part because of the earnings ceilings beyond which such taxes are no longer paid. They state (p. 20):

“Payroll tax rates vary across provinces and industry groups because of the number of different taxes as well as differences in rates. We found that when the composition of the groups facing tax levels is examined, low-income groups faced higher marginal rates. Women, young workers, those with less education, employees in retail, clerical, and services, and in small business generally, are likely to be at high marginal rates and consequently bear many of the employment and wage costs these taxes may produce.

Bank of Canada: Poloz; Parker; Côté and Hostland and Others

Poloz (1994) conducts an analysis for the Bank of Canada of the determinants of the nonaccelerating-inflation rate of unemployment (the NAIRU) in Canada. He concludes (p. i):

“A balanced assessment of the available methodologies suggests that the NAIRU has risen somewhat during the 1990s, mainly because of a steep rise in the rate of payroll taxation.”

Poloz (1994) further outlines how these conclusions are based on multiple lines of evidence as used by the Bank of Canada for the purposes of applied economic analysis and forecasting (p. 14):

“At the Bank of Canada, the staff make use of all these methods in reaching judgments about the NAIRU and potential output, which are then input into our macro model for purposes of developing medium-term projections. Given the wide range of estimates that are available, the outcome of this process is highly judgmental. However, the current judgment of the Bank’s staff is that the NAIRU in Canada has risen somewhat since Rose (1988) reported that it was around 8 per

cent at the end of 1987. The main contributing factor appears to have been the steep rise in payroll taxation since then, possibly with some additional temporary effects coming from relative price shocks due to trade liberalization and tax reform.”

Poloz (1994, p.16) further comments on how payroll taxes have affected the extent to which real wages have exceeded productivity:

“A second, perhaps more telling, measure of the extent of macroeconomic disequilibrium is the gap between the producer real wage [wage that employers pay] and labour productivity...this gap has opened up considerably during this economic cycle, with the real producer wage exceeding the level of productivity by nearly 6 per cent in 1993, which is very large by historical standards ...The rise in payroll taxation discussed earlier accounts for perhaps as much as one-half of this gap.”

Poloz concludes (p. 19):

“As in many countries, unemployment remains a serious and complex problem in Canada. The above discussion has identified a number of possible explanations, some of which are clearly structural, while others are less so. Although it is difficult to be precise about what has happened to the NAIRU since the late 1980s, the evidence suggests that it has risen above the 8 per cent level thought to prevail at that time, mainly because of a substantial rise in payroll taxation.”

In another study for the Bank of Canada, Parker (1995) relates the growth of real output from 1979 to 1994 in Canada to a variety of factors that would affect that growth. He found that over a 30 year period prior to the 1990s, the producer real wage (i.e., the wages paid by employers including payroll taxes) and productivity moved closely. He indicated, however, that (p. 31, 32):

“the series began to diverge in 1990 as the producer real wage moved to a level considerably in excess of the level of productivity (opening what is referred to as the producer real wage gap). The gap widened to nearly 5 percent in 1993 from about zero in late 1989... the opening of the real wage gap may have reduced the level of employment by about 2 percent between 1988 and 1993.”

In examining the factors responsible for the opening of the real wage gap he indicates (p. 32):

“There was a sharp increase in the cost of supplementary benefits paid by employers, mainly because payroll taxes rose substantially between 1990 and 1993.”

Based on additional calculations he concludes (p. 33):

“The rise in supplementary labour income between 1988 and 1993 (the peak of the real wage gap) is estimated to have reduced the level of employment by about 1 percent in 1993 ... This represents approximately one-half of the opening of the producer real wage gap over that period.”

In essence, the rise in payroll taxes over that brief five year period increased employers' labour cost creating a gap between their wage costs (including payroll taxes) and productivity. This in turn is estimated to have reduced employment by about 1 percent by the end of that period

In a further study for the Bank of Canada, Côté and Hostland (1996) conduct a sophisticated econometric analysis, of the determinants of the rising trend in the unemployment rate in Canada over the period 1955 to 1994. They conclude (p. 35):

“The main conclusion that we draw from our analysis is that the stochastic trend in the unemployment rate can best be explained by two structural factors: the degree of unionization in the labour force and payroll taxes.”

Abbott and Beach

Abbott and Beach (1997) econometrically estimate the impact of employer payroll taxes on employment and wages in Canada over the period 1970-1993. They use two empirical procedures. The first involves direct estimates of the impact of payroll taxes on employment and wages. The second involves simulation estimates based on external estimates of labour demand and labour supply responses (elasticities).

To motivate their analysis, they first highlight the potential negative effects of payroll taxes, for employers (p. 155):

“The employer portion of payroll taxes is part of indirect labour costs that can appreciably affect the cost competitiveness of Canadian employers.”

And for employees (p. 154):

“payroll taxes reduce take-home earnings and disposable income available for consumption and maintaining standards of living; workers may react by reducing labour supply [thereby contributing to labour shortages] or by demanding higher pre-tax wages. In a decade of stagnating real incomes, higher taxes leave less available for private consumption.”

Based on their two empirical procedures, Abbott and Beach (1997 p. 225) find that a one-percentage-point increase in payroll taxes (e.g., from around 7% to 8% overall)

would reduce employment by about 2 percent (ranging from around 0.86% to 3.3%) and reduce wages by about 2.5 percent (ranging from 1.7% to 3.5%).

Their results could be used to *illustrate* the potential benefits of Newfoundland and Labrador moving their workers' compensation assessment rate of 2.74 in 2011 to the average Canadian rate of 1.94. This is a reduction of 0.80 (i.e., eight-tenths of a percentage point). To the extent that the Abbott and Beach results would apply to Newfoundland and Labrador, this suggests that such a reduction would increase employment by about 1.6 percent (i.e., 0.80×2 percent) and increase wages by about 2 percent (i.e., $0.80 \times 2.5\%$). Clearly, these are substantial magnitudes.

Dungan, PEAP Model

The previous studies examined the impact of *payroll taxes in general* on aggregate economic outcomes such as employment, unemployment, wage costs to employers, wages received by employees and productivity. Of particular relevance to this report is the analysis by Dungan (2000) since it deals with the impact of *workers' compensation payroll taxes*. The analysis is based on simulations from macro-econometric forecasting models of the Canadian and Ontario economies operated by the Policy and Economic Analysis Program (PEAP) at the University of Toronto. These models have been used to simulate the impact of a wide-range of policy initiatives including (p. 130): the causes of recessions; the Canada-U.S. Free Trade Agreement; the GST; and the harmonization of the Ontario sales tax with the GST.

Dungan (p. 137) provides an illustrative simulation that involves estimating the impact of a 10 % increase in the workers' compensation assessment rate in Ontario (p. 151). For Newfoundland and Labrador, this would be the equivalent of increasing their current assessment rate of 2.75 by 0.275 to 3.025. The short-run consequences of such an increase are illustrated by the effect in the third-year after the change. In that year, real GDP is lower by 0.316 percent (i.e. one-third of one percent), consumption down by 0.461 percent, investment down by 0.274 percent, the consumer price index up by 0.131 percent, employment down by 0.281 percent, wages per employee down by 0.030 percent, productivity down by 0.035 percent, and the capital stock down by 0.028 percent. As a result of these, the unemployment rate would increase by 0.167 percentage points (e.g., from a rate of approximately 8 percent at that time to one of 8.167 percent). Interestingly, the fiscal balance of the province worsens in spite of the increased receipt of workers' compensation premiums, reflecting the reduction in receipts of taxes from the other adjustments. The longer-run adjustments (e.g., after 10 years) are not as negative and often disappear or even show small increases, in large part because of features of the model that have monetary and fiscal policy authorities alter their policies in response to the adjustments of negative shocks, as well as much of the cost being passed backwards to workers on the form of lower real wages.

Dungan indicates (p. 137):

“While each experiment is roughly founded on issues related to workers’ compensation in Ontario, the national results obtained from FOCUS are fully applicable to similar changes in any other province, or a combination of provinces. Moreover, the model impacts may be considered roughly ‘linear.’ That is, if one wanted to estimate the impacts of a policy change, say three times larger or half as large as those presented here, the responses could be multiplied by 3 or 0.5. The simulation results therefore apply more widely than to specific policy changes for Ontario.”

This suggests that the simulation could be *illustrative* of similar changes in Newfoundland and Labrador. Since the model is approximately linear around where the change occurs, then the change would be roughly symmetric for increases and decreases, and larger changes would lead to proportionately larger effects. The 2011 assessment rate in Newfoundland and Labrador is 2.74 compared to an average rate of 1.94 across other jurisdictions in Canada. That difference is 0.80 which would imply about a 30% reduction if Newfoundland and Labrador were to move to the Canadian average. This is three times the 10% change in Ontario that was simulated. This suggests that the gains for Newfoundland and Labrador would be about three times the simulated gains for Ontario that would have resulted from a 10% reduction in rates rather than the (general) losses that occurred in Ontario from the simulated 10% increase in rates.

Multiplying the previously discussed effects by three, and reversing the sign to simulate the *gains* from a *reduction* in rates would yield the following short-run effects for NFLD of such a reduction by the third-year after the change. GDP would be higher by 0.948 percent (i.e. about one percent), consumption higher by 1.38 percent; investment higher by 0.822 percent (i.e. almost one percent), the consumer price index down by 0.393 of a percent, employment up by 0.843 percent (i.e., almost one percent), wages per employee up by 0.09 percent, productivity up by 0.105 percent, and the capital stock up by 0.084 percent. As a result of these, the unemployment rate would decrease by 0.501 (i.e., one-half one percentage point). The fiscal balance of the province would improve in spite of the decreased receipt of workers’ compensation premiums, reflecting the increase in receipts of taxes from the other adjustments. As with the Ontario simulations, the longer-run adjustments (e.g., after 10 years) would not be as positive and often disappear in part because of features of the model that have monetary and fiscal policy authorities alter their policies in response to the adjustments.

Some of the percentage changes indicated above from Newfoundland and Labrador moving their workers’ compensation rate to the national average can be better illustrated by converting them to actual magnitudes (based on figures from Statistics Canada for 2011). For example; a one percent increase in GDP would increase GDP by \$330 million from \$33,026 million; a 0.822 percent increase in investment would increase investment by \$60.6 million from \$7,376 million; a 0.393 percent decrease in the CPI would reduce the CPI to slightly above 3% from 3.4%; a 0.843 percent increase in employment would increase employment by 1,900 from 225,400; a wage increase of 0.09

would increase hourly wages by a little under \$0.02 from \$20.75 per hour (about the same as the productivity increase of 0.105 percent if it went into hourly wages that depend on productivity increases); and the reduction in the unemployment rate of 0.501 would reduce the unemployment rate from 12.7% to 12.2%.

Even though the model outlined by Dungan is linear around the adjustments and roughly symmetrical in terms of negative and positive effects and is “fully applicable to similar changes in any other province” (p. 137) these effects should be regarded as simply *illustrative* of the *potential* effects that could apply to Newfoundland and Labrador from reductions in their premium rates to the average of the other jurisdictions. While the exact magnitudes may be only illustrative, it seems reasonable to conclude that the rate reduction would result in higher GDP, personal consumption, business investment, employment, wages, productivity and the capital stock, as well as decreases in the unemployment rate.

Overall, Macro Analysis

Overall, the various macro-econometric studies are fairly uniform in finding negative effects of payroll taxes on a wide range of aggregate or macroeconomic indicators. These studies are also usually quite sophisticated in their techniques and generally done by academically respected persons or organizations that do not have an “axe to grind” or an advocacy position to support (e.g., IMF, Bank of Canada, PEAP). While their studies invariably contain qualifications, their conclusions are fairly uniform on the negative effects of payroll taxes on various aggregate outcomes. In that vein, they also support the previously discussed “micro” analysis that focused on the negative implications of excessive costs in this area.

CONCLUDING OBSERVATIONS

The previous discussion highlighted the importance of containing costs in the workers’ compensation system of Newfoundland and Labrador. This was so because the average assessment rates on employers have been substantially higher in that province relative to the costs of *any* of the other relevant jurisdictions in Canada since 1993, and they have been higher than the average assessment rate across *all* other jurisdictions combined since 1987. Containing such costs is important for a wide range of reasons that were documented.

Employers, for example, are increasingly able to locate their plant and investment decisions in jurisdictions that do not impose excessive regulatory costs, and they are under more competitive pressures to do so. For *employees*, any loss of investment also means a loss of jobs or lower wages if they are trying to offset the excessive regulatory costs of worker’s compensation to retain their jobs.

Communities will also suffer from the lost investment opportunities and the jobs associated with those investments as well as the negative image and reputation as being “unfriendly” to business opportunities. Having workers’ compensation costs that are out-of-line with those of other jurisdictions may serve as a signal to prospective employers that a province is unable to contain its costs in this area, and if that is so, they may not be able to contain them in other areas. Workers’ compensation costs may just be regarded as the tip of the iceberg.

Even if the higher costs are used to finance *more generous benefits* to workers, this can have adverse feedback effects on employers because both theory and evidence indicates that higher benefits reduce the incentive for persons on workers’ compensation to return to work. These adverse work incentive effects mean a *reduction in the supply of labour* that is available to employers. This can further foster the labour shortages that can emanate from other sources such as the retirements from an aging population and the exodus to job opportunities in places like Alberta. Such shortages can inhibit taking advantage of unprecedented opportunities in mega projects and resource developments that are occurring in Newfoundland and Labrador.

More generous benefits also have perverse effects by enhancing the incentive to make a claim, to make false claims, to contest claims and to remain on a claim for a longer period, and they can reduce the incentive to take proper precautions at the workplace to reduce the risk of injury. Such *additional claims and accidents* foster further higher costs and a self-perpetuating cycle of cost increases. Higher benefits also encourage individuals to access workers’ compensation as opposed to other *potential substitute programs* including those that are financed by the federal government such as Employment Insurance or the Canada Pension Plan-Disability program.

In order to contain the payroll tax cost of workers’ compensation, governments may *shift the cost to employers* by imposing a *duty to accommodate* the needs of disabled and injured workers at the workplace. The same can apply to *vocational rehabilitation* (VR) requirements where the empirical evidence does not generally support the notion that the substantial costs of VR are offset by the benefits of a more rapid and permanent return to work.

Experience rating whereby the premiums an organization pays are related to their accident rates can save on costs by providing an incentive for organizations to take precautions, emphasise health and safety and reduce accidents, allowing them to do this in the cost-effective manner that is best suited for their particular situation. The empirical evidence generally confirms these positive effects.

Any *unfunded liabilities* in the workers’ compensation system can also discourage expansion of employment and new employers from entering and having to incur the unfunded liabilities or surcharges to discharge them.

Even if a substantial portion of the payroll tax initially imposed on employers is *shifted back to workers* in the form of paying lower wages in return for the benefits of the programs, this can still have negative implications for employers through various mechanisms: reducing their ability to offer wages that are as high as they otherwise would be in order to attract workers to fill impending labour shortages; while the wage adjustment period is occurring, the payroll tax does increase labour costs to the firm; and some of that cost increase to the firm may be permanent to the extent that it is not all shifted backwards in the form of wage adjustments. Evidence indicates that these lead to reductions in employment and output and to increases in unemployment.

Even though *injury rates have fallen* dramatically, costs have not fallen, suggesting that it is very difficult to ratchet-down tax rates once they have been established. Costs may *increase in the future* given the trend towards remaining in the labour force, and the longer-living and aging workforce where disability is more prominent, the incidence and duration of claims are higher, return-to-work is slower, rehabilitation and VR is more difficult, and occupational diseases with a long latency periods have a longer time to appear. Costs may also increase because of the changing nature of claims increasingly associated with syndromes, repetitive strain and musculoskeletal injuries.

Containing costs within the workers' compensation system of Newfoundland and Labrador is also important because employers in that province often have to "compete" with the *employment insurance* (EI) system to fill labour shortages. Seasonal work interspersed with EI and work in the informal economy may become institutionalized making it difficult for employers to hire workers, and for adjustments to occur in the direction of market forces which can have the twin benefit of reducing unemployment and underemployment in the declining sectors while reducing skill and labour shortage in the expanding sectors.

A large number of *business surveys* have documented the negative *perceptions* that employers have of payroll taxes relative to other taxes, and of the potential for investment and job creation if such taxes were cut. And it is perceptions that can influence investment and the associated job creation. *Government reports* on competitiveness, productivity, innovation and job creation have also commented on the negative effects of payroll taxes on those outcomes.

A wide range of *macro-econometric studies* involving different data and methodologies are fairly uniform in finding negative effects of payroll taxes on a various aggregate or macroeconomic indicators. These studies are also generally quite sophisticated in their techniques and generally done by academically respected persons or organizations that do not have an "axe to grind" or a advocacy position to support (e.g., IMF, Bank of Canada, PEAP). While their studies invariably contain qualifications, their conclusions are fairly uniform on the negative effects of payroll taxes on various aggregate outcomes. In that vein, they also support the previously discussed "micro" analysis that focused on the implications of excessive costs in this area.

Newfoundland/ Labrador is perched on the *opportunity* for a permanent transition from a “have-not” economy to a “have” economy given the new developments that are occurring in that province. Reforming the workers’ compensation system will be important in that transition not only in its own right, but also because of the signal it will send to perspective employers and the real rather than artificial job creation associated with that signal. There seems no better time for action in this important area.

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TABLES AND FIGURES

Table 1: Average Assessment Rates Per \$100 of Payroll by Jurisdiction, 1985-2011.

Year	AB	BC	MB	NB	NL	NT/ NU	NS	ON	PE	QC	SK	YT	Avg.
1985	1.52	2.77	1.38	1.61	1.76	2.9	1.19	2.31	1.37	1.88	1.37	2.21	1.86
1986	1.59	2.19	1.67	1.77	1.79	2.59	1.19	2.65	1.32	2.05	1.37	2.6	1.91
1987	1.56	1.97	2.04	1.87	1.94	1.97	1.23	2.88	1.29	2.5	1.48	2.02	1.89
1988	1.58	1.79	2.41	1.87	2.18	1.88	1.32	3.02	1.38	2.75	1.58	1.87	1.95
1989	1.75	1.78	2.25	1.88	2.31	2.35	1.34	3.12	1.57	2.75	1.58	1.55	1.99
1990	1.86	1.75	2.27	1.94	2.51	2.47	1.47	3.18	1.74	2.5	1.6	1.62	2.04
1991	1.85	1.83	2.25	2.04	2.92	2.43	1.66	3.2	1.95	2.32	1.63	1.48	2.06
1992	1.89	1.95	2.15	2.25	2.99	2.29	1.98	3.16	2	2.5	1.66	1.31	2.10
1993	2.19	2.11	2.13	2.19	3.25	2.54	2.28	2.95	2.22	2.75	1.59	1.24	2.10
1994	2.29	2.16	2.15	2.15	3.2	2.54	2.54	3.01	2.07	2.75	1.71	1.24	2.24
1995	1.89	2.29	2.22	1.75	3.12	2.54	2.54	3	1.98	2.6	1.86	1.28	2.18
1996	1.5	2.29	2.19	1.63	3.07	2.33	2.51	3	2.03	2.52	1.87	1.3	2.11
1997	1.48	2.22	2.07	1.55	2.97	2.36	2.51	2.85	2.05	2.52	1.99	1.69	2.12
1998	1.34	2.01	1.86	1.59	2.96	1.93	2.53	2.59	2.12	2.47	1.69	1.56	1.97
1999	1.07	1.88	1.46	1.67	2.97	1.2	2.56	2.42	2.11	2.22	1.66	1.26	1.77
2000	1.12	1.73	1.49	1.67	3.23	1.04	2.55	2.29	2.08	2.07	1.61	1.29	1.72
2001	1.31	1.78	1.52	1.58	3.22	1.18	2.49	2.13	2.29	1.9	1.57	1.3	1.73
2002	1.64	1.88	1.53	1.86	3.5	1.28	2.5	2.13	2.34	1.85	1.65	1.28	1.82
2003	1.94	1.94	1.62	2.03	3.36	1.45	2.58	2.19	2.42	1.93	1.81	1.38	1.94
2004	1.96	1.99	1.71	2.2	3.41	1.82	2.59	2.19	2.39	2.15	2	1.54	2.05
2005	1.83	1.99	1.72	2.16	3.3	1.96	2.63	2.23	2.34	2.29	1.99	1.79	2.08
2006	1.63	1.89	1.72	2.09	2.66	2	2.63	2.24	2.24	2.32	1.87	2.28	2.08
2007	1.46	1.54	1.71	2.08	2.73	1.76	2.64	2.24	2.2	2.19	1.87	2.87	2.05
2008	1.33	1.51	1.62	2.04	2.74	1.8	2.68	2.24	1.79	2.12	1.74	2.9	1.98
2009	1.24	1.4	1.62	2.01	2.72	1.56	2.67	2.2	2.2	2.08	1.7	2.89	1.96
2010	1.32	1.56	1.6	2.08	2.75	1.8	2.65	2.3	2.15	2.19	1.63	2.95	2.02
2011	1.22	1.54	1.5	2	2.75	1.73	2.65	2.35	2.05	2.19	1.61	2.49	1.94

Source: Association of Workers' Compensation Boards of Canada, 2011.

Notes: 2010 and 2011 figures are provisional. Rates are expressed as a premium per \$100 of assessable payroll. Average assessment rates in each jurisdiction are calculated based on a composition of all individual industry base rates published by WorkSafeBC, which were reported by employers for the assessment year and province. The rate for Manitoba in 2002 is an average of the rates for the first and last-half of the year. The unweighted average in the last column is the average across the various jurisdictions not weighted by employment, and excluding Newfoundland and Labrador.

Average Assessment Rates Per \$100 Payroll - All Prov/Ter vs NL (1985-2011)

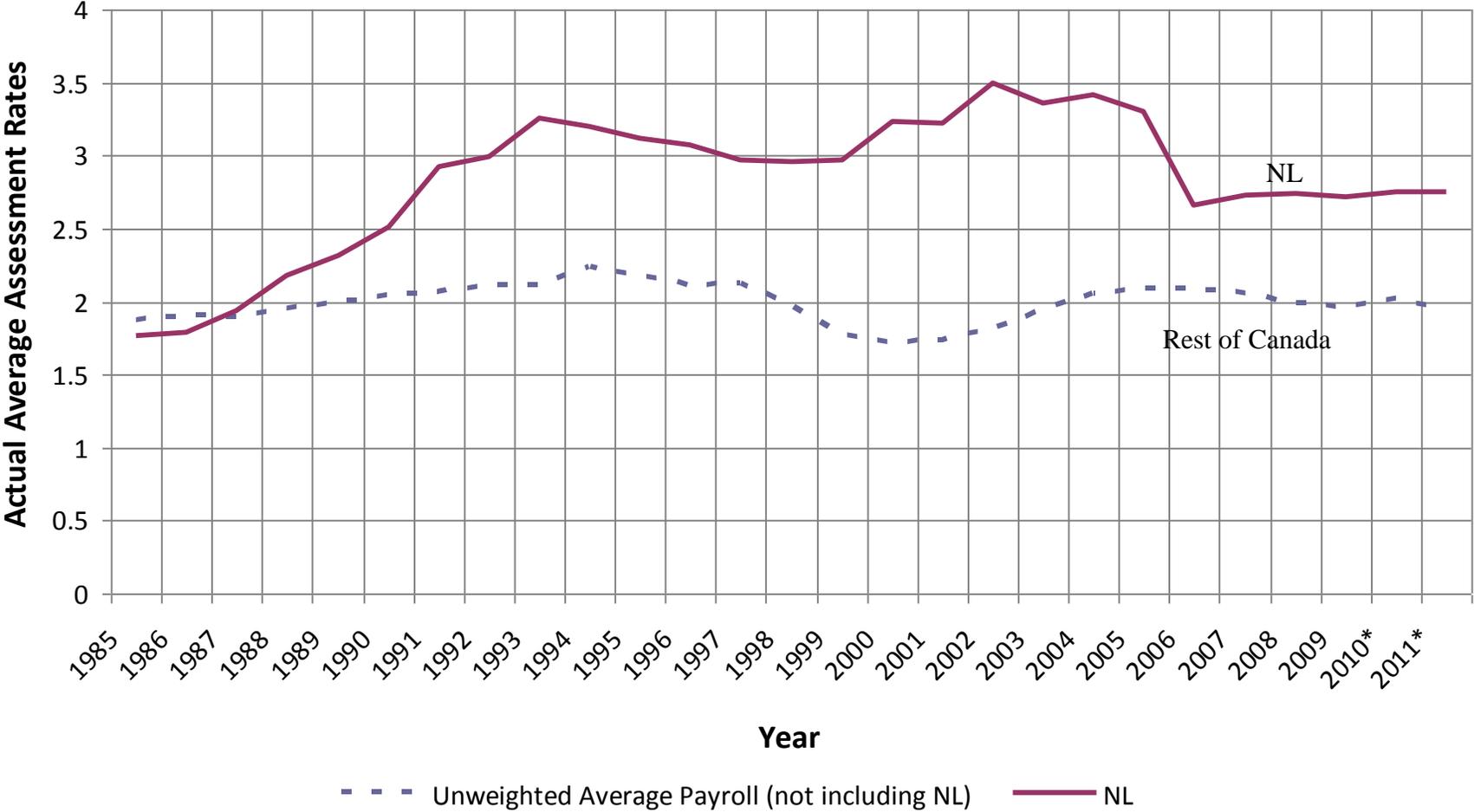
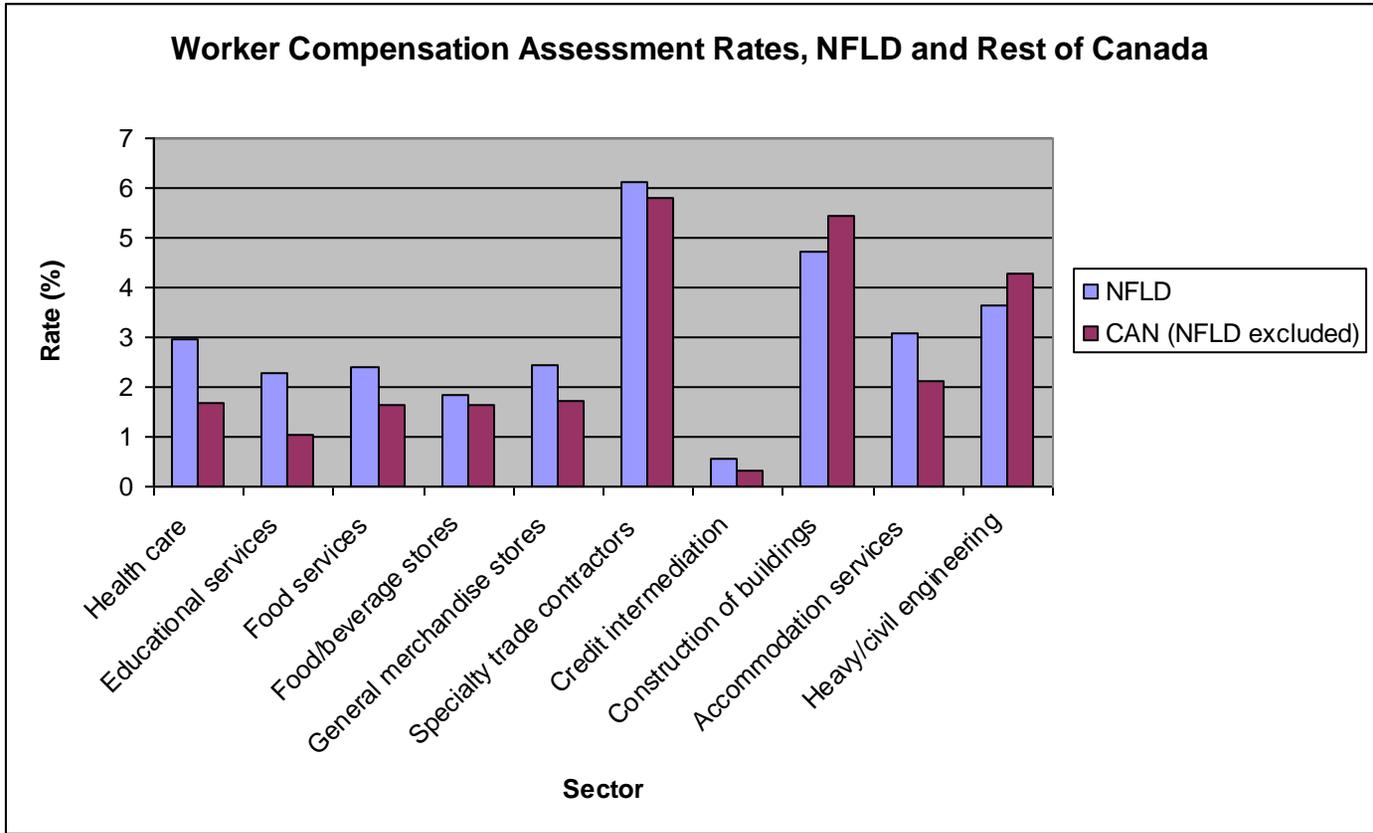


Table 2 – Average worker compensation assessment rates by province and sector in 2011

Sector	NFLD											
	Employment	Rate	PEI	NS	NB	QC	ON	SK	AB	BC	CAN	
Health care/social assistance	26,590	2.96	1.68	2.22	1.32	2.18	1.55	1.34	0.87	1.09	1.69	
Educational services	16,141	2.27	1.90	0.91	0.36	1.18	0.50	0.99	0.59	0.53	1.03	
Food services/drinking places	9,614	2.40	1.11	1.72	1.61	2.97	1.65	0.97	1.08	1.21	1.64	
Food/beverage stores	7,762	1.83	1.11	1.78	1.11	2.57	2.75	1.35	1.50	0.97	1.66	
General merchandise stores	4,879	2.43	1.11	1.89	2.28	3.02	1.40	1.39	1.14	0.89	1.73	
Specialty trade contractors	4,812	6.11	5.61	4.16	3.61	12.37	9.63	3.26	2.77	4.64	5.80	
Credit intermediation	4,301	0.57	0.30	0.60	0.32	0.59	0.21	0.18	0.20	0.09	0.34	
Construction of buildings	2,811	4.73	6.62	4.64	3.83	12.07	6.55	3.77	2.51	4.11	5.43	
Accommodation services	2,517	3.10	1.11	2.68	1.61	3.52	2.97	1.82	0.94	1.34	2.12	
Heavy/civil engineering	2,382	3.66	5.49	2.97	2.47	9.03	5.55	3.12	2.05	4.37	4.30	

Notes: Highlighted cells are ones for which the rates in a particular sector and province are higher than those in NFLD.

The sector or industries are the 10 largest in terms of employment in NFLD for rate groups that are common across jurisdiction and that have positive employment in all of the Canadian provinces, except for PEI and Manitoba that did not have employees in those rate groups. The levels of employment are in number of persons in 2007, obtained from the Annual Estimates of Employment, Earnings, and Hours Based on the North American Industrial Classification System, NAICS, from Statistics Canada, and accessed through the Data Liberation Initiative (DLI) at the University of Toronto. The worker compensation rates are author's own calculations of unweighted averages of 2011 assessment rates by industry from the Association of Workers' Compensation Boards of Canada. Rates for Canada (CAN) are unweighted averages across the other jurisdictions excluding NFLD.



Source: Table 2.