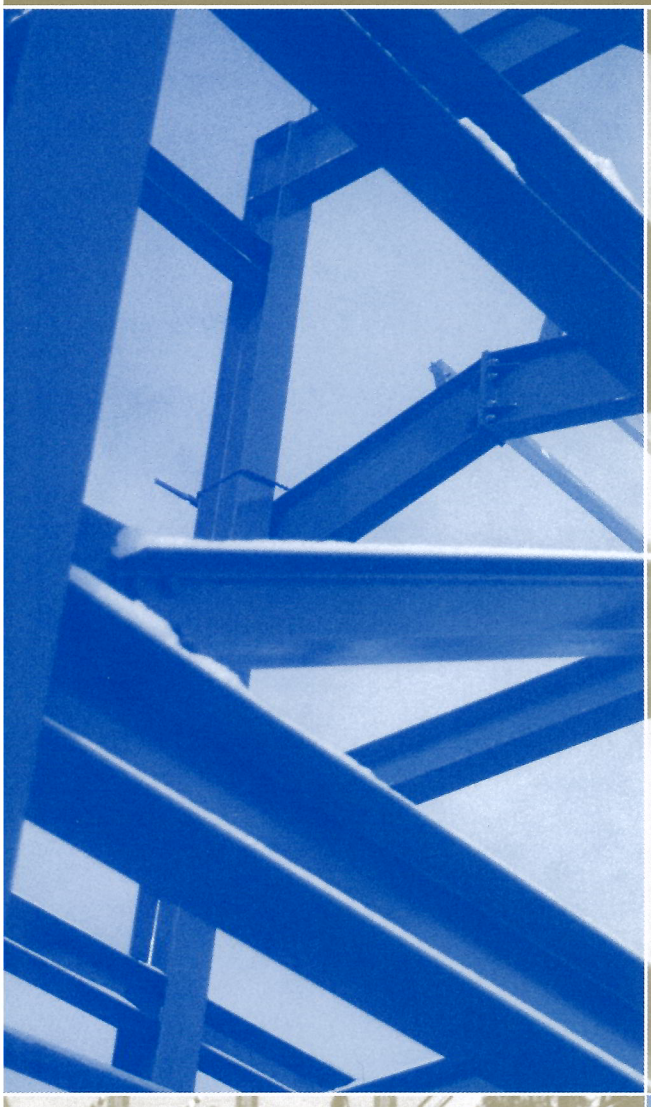
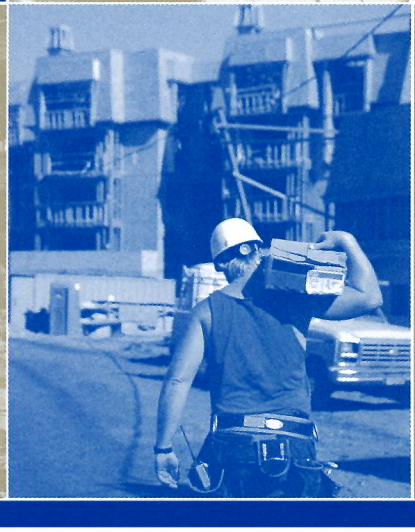
Impact of Fair Wage Policies on the Construction Industry





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Contents

Executive Summary

History

- Fair Wage Policies originated in the late 19th and early 20th centuries. Canadian policy reflects both British and U.S. influence.
- In the U.S., Fair Wage Policy (known as Prevailing Wage Policy) is founded in the *Davis-Bacon Act* of 1931 and subsequent amendments to the Act in 1934. There are also Prevailing Wage laws in 32 U.S. states.
- In Canada, the federal government introduced a Fair Wage Policy in 1900. The federal *Fair Wages and Hours of Work Act* of 1930 and 1935 provided a statutory basis for the policy. In 1984, the Conservative government ceased updating the federal schedules. This policy was reversed by the Liberal government. In 1999, the federal Fair Wage Schedules were revised based on Statistics Canada surveys of prevailing wages and provincial Fair Wage Schedules where those were current.
- The current federal Fair Wage Schedule for Ontario was issued on January 17, 2005. When released, the schedule provided for regional rates equal to approximately 86.5% of the straight union wage rate. This was the equivalent of around 68% of the union wage package.
- In Ontario, provincial Fair Wage Policy is based on order-in-council. The schedule was last updated in 1995, based on 1994 rates. In urban regions, the Ontario policy tied the Fair Wage Schedule to the union rate for straight wages.
- Practice varies in other provincial jurisdictions, although the majority either do not have Fair Wage Policies or do not have current schedules. Several municipalities in Canada also have Fair Wage Policies. The longest standing such policy is City of Toronto's Fair Wage Policy.

Fair Wages and Construction Costs

- The impact of a Fair Wage Policy on construction costs depends on the degree to which productivity effects offset the impact of higher wage rates. In construction, productivity effects arise from four sources:
    1. the substitution of skilled labour for semi-skilled or unskilled labour,
    2. the substitution of machinery and equipment for labour,
    3. the substitution of pre-fabricated components for on-site construction, and
    4. more efficient project management.

- There are a substantial number of U.S. studies that examine the impact of Prevailing Wage laws, but only a few Canadian studies. All cost comparison studies are limited by the inherent difficulty in comparing costs across construction projects that are not identical in location, design and materials and are affected by the construction cycle.
- U.S. studies have generally found cost impacts from 0 to 5% on new building construction. Recent studies that adjust for various factors than can affect cost, such as the size of buildings and materials used, have gravitated to the lower end of this range. Several studies find marginally positive impacts on cost but note that these findings do not meet statistical reliability tests. There are fewer studies of renovations and alterations. These types of construction are also more difficult to compare. The limited evidence, however, suggests a greater cost impact on renovation and alteration work. Such work is often undertaken by smaller contractors who are more affected by Prevailing Wage laws than the larger contractors who more often do new building construction. There are no recent studies of the impact of Prevailing Wage laws on road and highway construction.
- The only Canadian studies focus on the impact of B.C.'s *Skills Development and Fair Wage Act* which was enacted in 1994 (but initially introduced by order-in-council in 1992) and repealed in 2001. A 1993 study by the Quantity Surveyors Association of B.C. estimated that B.C.'s Fair Wage Policy added approximately 6.5–7.5% to construction costs. However, this conclusion was based on an analysis of bids submitted by open shop contractors on only 7 projects. A later commentary by the Fraser Institute cites an increase of 4% on B.C. construction costs. Other studies find a smaller impact on costs when factors such as building size, materials, the construction cycle, etc. are taken into account. For example, the estimated cost impact on school construction in one study is only 2%.
- Some studies conclude that productivity gains may entirely eliminate the cost impact of higher wage rates. Most studies, however, still find a residual cost impact, although it usually does not pass the test for statistical reliability. A Fair Wage Policy similar to Ontario's 1995 policy would likely have a 2-4% impact on the cost new construction. The impact on repair and renovation work would likely be in the 11-17% range, based on Statistics Canada's survey of prevailing wage rates in Ontario

Training

- U.S. studies show a strong relationship between the repeal of Prevailing Wage laws and a decline in apprenticeships in the construction trades. U.S. studies also show that non-union contractors commonly employ fewer apprentices and fewer certified journeypersons on their crews using, instead, semi-skilled workers and helpers.
- In Canada, construction unions operate approximately 215 union training centres and deliver training to over 11,000 apprentices and almost 40,000 journeypersons. Negotiated contributions to Training Trust Funds average approximately 1% of straight wages. In light of the scale of this involvement in skills training, it is clear that there is a strong link between construction unions and skills training. To the degree that Fair Wage policies narrow the competitive margin between

union and non-union contractors, they presumptively provide support to skills training in the industry.

Occupational Safety

- U.S. studies document a significant increase in reported lost-time injuries following the repeal of Prevailing Wage laws and higher occupational injury rates in construction in states that do not have Prevailing Wage laws.
- WSIB data for the electrical and mechanical trades shows a marked difference in lost time injuries between union and non-union employers over the period 1993 to 1998. The lost time injury rate of non-union contractors was more than double that of union contractors.
- Fair Wage policy narrows the competitive margin between union and non-union contractors. Fair Wage policy may thereby contribute to strengthening or supporting the 'union effect' on health and safety performance in the construction industry.

Productivity

- Several U.S. studies found strong evidence of a positive productivity effect associated with unionization in the construction industry, although there is also evidence that this productivity advantage has narrowed significantly. U.S. studies of Prevailing Wage laws generally find a significant productivity effect.
- In the longer run, higher wages almost invariably lead to the substitution of capital for labour and to higher productivity. Higher wages also lead to a preference for more skilled labour. The "union effect" (as distinct from the "high wage effect") has not been carefully studied. The issue is whether restrictive work rules (chiefly trade jurisdictions) have a greater negative effect on productivity than union policies which support investment in skills. At present, there is no evidence to answer this question one way or the other. Moreover, we should not expect a single answer to be applicable across all trades, all regions and all construction types.

Underground Practices – Independent Operators

- In non-residential construction, the most important underground practice is styling workers as 'independent operators' to avoid employer costs related to CPP, EI, WSIB and the Employer Health Tax, as well as statutory requirements for vacation and holiday pay.
- On a total cost basis, the use of 'independent operators' may generate 'savings' to a public sector owner-developer of up to 2.3% of total construction costs. These 'savings' are financed roughly equally by the federal and provincial governments and by the workers themselves.
- The net 'gain' to the province from turning a blind eye to the improper styling of workers as 'independent operators' is barely over 1% of construction costs, and probably less. This hardly

seems commensurate with weakening occupational health and safety, eviscerating minimum employment standards, undermining apprenticeship training, and encouraging other forms of non-compliance.

Construction is Different:

- There are several features of the construction labour market which differ either in kind or in degree from the conditions that prevail in most other labour markets. Other industry labour markets may share some of these characteristics, but few industry labour markets share all of them or share them to the same degree. Taken together, there are at least six characteristics that make employment and wage determination in the construction industry distinct:
    - the threat of permanent lay-off is substantially higher in construction;
    - unattenuated price competition is significantly more intense in construction than in other industries;
    - the effect of cut-throat competition falls almost wholly on the working conditions;
    - sub-contracting, including long-chains of sub-sub-contracting are pervasive in the construction industry. Sub-contracting is strongly associated with higher rates of occupational injury;
    - the construction industry is redolent with workers who have been styled by contractors as 'independent operators' so as to reduce contractors' labour costs and escape other obligations associated with a traditional employment relationship;
    - the distinct features of the construction labour market and the construction industry lead to an intrinsic bias to under-invest in skills. In the absence of union (or government) policies to counter this bias, the construction labour market under-supplies skilled labour and over-supplies unskilled (or semi-skilled) labour.
- The fact that construction is different is a basic principle of labour legislation in every jurisdiction in Canada. The construction industry requires distinct policies.

The Case for Fair Wage Policy

1. Compared to most other industries, construction is more vulnerable to destructive forms of competition. Cut-throat competition undermines employment conditions, erodes occupational safety standards, weakens industry investment in skills training, and promotes evasion of legal obligations. The low bid policies which are widely adhered to in the public sector reinforce the tendency to cut-throat competition. *Fair Wage Policies are a necessary counter-balance to the tendency of the construction industry to fall into cut-throat competition.*

2. By putting limits on competition based on cheap labour, Fair Wage Policies pressure contractors to adopt more efficient construction methods and to strengthen project management. *By promoting positive competition rather than cut-throat competition, Fair Wage Policies support productivity and innovation in the construction industry*.

3. By increasing wage rates, *Fair Wage Policies encourage the use of more skilled and better qualified labour and thereby support industry and worker investments in skills training and apprenticeship*. A more skilled work force is one of the pillars of a more productive and innovative industry. A skilled work force is essential to a quality construction product.

4. In the construction industry, some contractors invest in apprenticeship and skills development, while others do not. Without Fair Wage Policies, contractors that do not invest in apprenticeship and skills development have a cost advantage over contractors that do. *It is patently unreasonable for governments, on the one hand, to support and advocate both expansion of the apprenticeship system and more industry investment in skills development and then, on the other hand, give a competitive advantage on public sector work to employers who do not contribute to the apprenticeship system and who make no direct investments in skills training*.

5. Decent working conditions and adherence to high standards for occupational safety go hand-in-hand. *Conversely, contractors that compete on the basis of cheap labour are notorious for weaker health and safety standards and for accepting greater risks of occupational injury*. U.S. evidence shows a significant increase in occupational injuries in states that repealed their Prevailing Wage laws.

6. *Contractors that compete on the basis of cheap labour are also likely to cut corners on quality, thereby increasing long-run costs*.

7. *Contractors that style their workers as so-called 'independent operators' enjoy an unfair competitive advantage over legitimate contractors of an amount equal to approximately 22% of labour costs*. By tolerating this practice, public sector owner-developers penalize legitimate contactors and encourage non-compliance and evasion. *Fair Wage Policies, if properly designed, curtail underground practices and thereby create a level playing field for competitive bidding*.

8. *Fair Wage Policies are incorrectly criticized for radically inflating costs. The evidence does not support his claim. Careful studies of construction costs do not find a significant impact*. The largest study, which examined construction costs for elementary and secondary schools in British Columbia before and after the introduction of a Fair Wage Policy, found a cost impact of no more than 2% and even this finding was described by the authors as not meeting the statistical test of reliability. It should also be kept in mind that the two-thirds or more of the 'savings' from using of so-called 'independent operators' are actually financed by losses to government and other public agencies, such as the WSIB.

9. Fair Wage Policies are incorrectly characterized as union preference policies. *In virtually every trade there are legitimate non-union contractors who pay wages that equal or exceed those typically set out in Fair Wage Schedules*. Fair Wage Policies limit competition only from those non-union contractors that base their competitive advantage on cheap wages, 'independent operators' and lower safety standards.

10. At the local level, Fair Wage Policies protect local employment and thereby increase the benefits to the local economy from construction that is financed by local funds.

A Modern Fair Wage Policy

1. Skills Training and Apprenticeship

   A Modern Fair Wage Policy should explicitly promote apprenticeship by requiring that workers on provincially supported construction projects either hold a trade certification or be registered as apprentices. In civil construction, where there is a large pool of workers who do not hold trade certifications, the focus should be on establishing apprenticeships for new entrants rather than requiring incumbent workers to obtain qualifications.

2. Health and Safety

   The Ontario government's policy of *requiring contractors to document their health and safety policy* should be extended to all provincially supported construction.

3. Underground Economy

   Ontario should adopt the requirements for reporting wage payments similar in effect to the requirements under the U.S. *Davis-Bacon Act*. As well, so called 'independent operators' should be explicitly covered by the Fair Wage Policy, as is case under the U.S. *Davis-Bacon Act*. *Further, the Ontario government should revoke the 'independent operator' exemption from mandatory WSIB coverage, at least on work that is financed, in whole or in part, by the provincial government*. Finally, a Modern Fair Wage Policy should *require statutorily mandated vacation and holiday pay to be added to remuneration if these benefits are not otherwise provided*.

4. Productivity and Competitiveness

   There are productivity and competitiveness challenges in the union sector than cannot be avoided. It would be both unwise and unreasonable to expect Fair Wage Policy to substitute for dealing with productivity and competitiveness challenges. Proposals for a Modern Fair Wage Policy will receive a much more sympathetic hearing if they are accompanied by proposals to work with governments to identify and tackle productivity challenges in the industry. As a major purchaser of construction, *the public sector has a strong interest in working with the industry to improve productivity*.

5. Scope of Coverage

Ontario should follow federal policy in applying its Fair Wage policy broadly, *i.e.*, to *all construction that is undertaken using provincial monies, regardless of whether the provincial government or one of its agencies is the owner-developer*.

6. Wage Comparisons

Ontario should follow the practice in Toronto of *linking the Fair Wage Schedule to the wage package*, not to straight wages.

7. Implementing the Prevailing Wage Principle

As a first step and to avoid duplication, *Ontario should combine its efforts with the federal government and co-operate with financing of Statistics Canada's National Construction Wage Survey in Ontario*. The five-year survey cycle should be reduced and a procedure should be developed for adjusting Fair Wage Schedules between surveys. The survey should track the wage package as well as the straight wage. *Ontario should consider adopting the Davis-Bacon standard whereby the negotiated wage package is deemed the prevailing wage when 50%of of the appropriately weighted survey responses so report*.

8. Enforcement

An expanded Fair Wage Policy should be accompanied by policies that communicate to workers their entitlements under the policy, and by occasional audits. These would be in addition to the current investigation of complaints. Audits could be undertaken in conjunction with WSIB enforcement.

■

1. Introduction

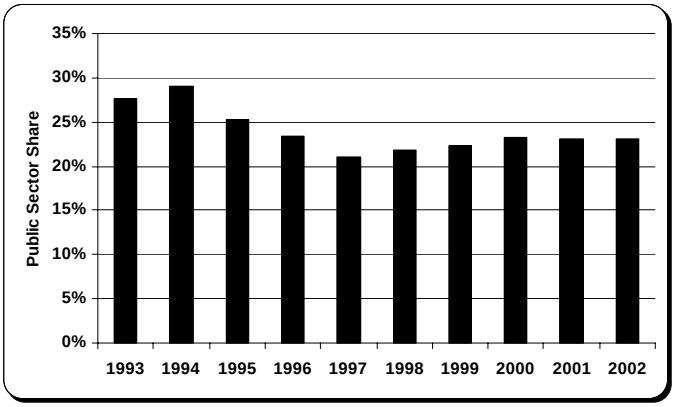
This study was commissioned by the Ontario Construction Secretariat. The study has three objectives. The first is to review the goals and history of Fair Wage Policy in Canada, but more specifically in Ontario and in those municipalities in Ontario that administer a Fair Wage Policy.

The second objective is to examine the impact of Fair Wage Policy. The most obvious impact is on the labour market, namely on wages and benefits paid to construction workers, and on construction costs. However, to confine the discussion to these effects would be too limiting. Fair Wage Policy also has important direct and indirect effects on health and safety, skills training, and on deterring 'underground practices'. By underground practices, we mean employment practices that skirt minimum employment standards, such as vacation and holiday pay and overtime, and dodge the payment of income taxes and contributions for EI, CPP and workers' compensation.

The third objective of the study is to consider how Fair Wage Policy can contribute to a construction industry that is productive and competitive, while at the same time supporting employment conditions that are fair and equitable to workers, employers and the taxpayers who ultimately pay for public sector construction.

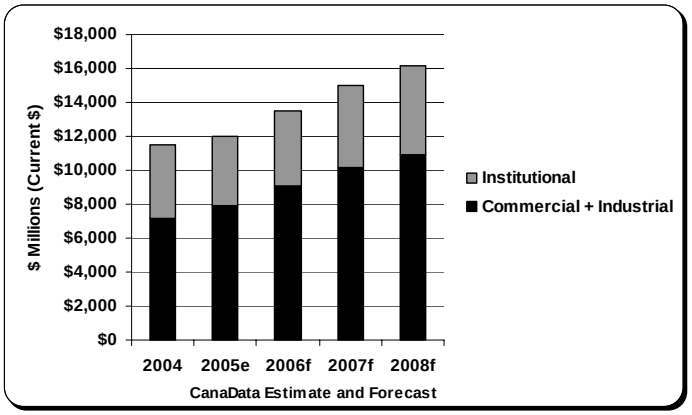
Statistics Canada data show that, in Ontario, just under 25% of spending on new construction and repair was undertaken by the public sector. This spending includes new and repair construction on buildings, roads and other infrastructure, and public housing. The spending was undertaken by governments, institutions in the health, education and cultural sectors, and by municipalities and boards of education.

Figure No. 1
Public Investment Spending on Capital and Repair Construction
Ontario, 1993 to 2002
(Statistics Canada, CANSIM Table No. 032-0002)



In the ICI sector, CanaData estimates that the public sector accounted for 34% of construction spending in Ontario in 2005. This share is projected to average around 32.4% over the period 2006 to 2008.

Figure No. 2
Actual, Estimated and Projected Construction Spending
ICI Sector – Ontario, 2004, 2008
(*CanaData Annual Construction Forecast, 2006-2008*)



It is evident from these trends that the tendering policies and practices of the public sector can have a significant impact on the construction labour market. Moreover, this impact will not be confined to public sector projects. For good or ill, the norms and standards that prevail in the public sector will have an influence on employment practices elsewhere. Contractors that meet higher employment, training, health and safety standards, and tax compliance standards on public sector works will have difficulty maintaining lower standards on private sector jobs. Conversely, when the public sector turns a blind eye to non-compliant conduct, such conduct is more likely to become embedded in the system.

Chapter Two of this study discusses the history and goals of Fair Wage Policy in Canada, and more specifically in Ontario. This chapter also compares Fair Wage Policies across the major Canadian jurisdictions. Chapter Three reviews the published literature on the impact of Fair Wage Policy on construction costs. The preponderance of this literature is American, where 'Fair Wages' are usually captioned as 'Prevailing Wages', pursuant to the U.S. *Davis-Bacon Act* and its various state-level counterparts. Chapter Four examines the broader impact of Fair Wage Policy in areas such as training, occupational health and safety, productivity, and the curtailment of 'underground practices'. Chapter Five considers why the construction industry is different and requires measures, such as a Fair Wage Policy. Chapter Six summarizes the case for Fair Wage Policy. Chapter Seven provides a thematic synopsis of our consultations and considers how an updated Fair Wage Policy could contribute to achieving important government policy goals.

Appendix A provides a list of individuals who were consulted or interviewed in the course of this study.

Appendix B reproduces an opinion letter prepared by Terry Yellig of the U.S. law offices of Sherman, Dunn, Cohen, Leifer and Yellig. The opinion letter describes the principles on the basis of which the

U.S. Davis-Bacon Act covers 'independent operators.' This is a major challenge in controlling underground economy practices in Canada. The statutory approach in the U.S. is important and instructive. Its adoption in Canada would contribute significantly to reining in underground economy practices.

Appendix C of this report reproduces a literature review completed by Prof. Richard Chaykowski.

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2. History and Objectives of Fair Wage Policies

This chapter reviews the objectives of Fair Wage Policies and the history of these policies in Canada. The historical discussion begins with the British and U.S. policies on which Canadian Fair Wage Policies and practices have been based. This discussion then summarizes the history of Fair Wage Policies in the federal jurisdiction and in Ontario. The experience of other provincial jurisdictions is briefly noted, as well as that of several Canadian municipalities that have Fair Wage Policies.

Objectives of Fair Wage Policies

Fair Wage Policies apply principally to workers who are engaged on public works projects. However. Fair Wage Polices have also been applied to other types of public contracting, for example, cleaning services, maintenance services and security services. As will be discussed below, Fair Wage Policies originated in the late 19th and early 20th centuries. In the context of the debates that informed the original Fair Wage Policies, fairness had two distinct connotations.

Historically, a male wage was deemed 'fair' when it enabled a worker to support his family. (Families supported by female workers were evidently not taken into account.) Wages were considered 'unduly low' when they fell below what was judged necessary for subsistence. Employment under such conditions was termed 'sweating' and was considered a social evil. Clearly there was a considerable degree of subjective judgement in notions that tied fairness to a particular standard of material consumption. While this notion of fairness is widespread in 19th and early 20th century social commentary, the more usual meaning assigned to 'fair wage' was a wage that conformed to prevailing norms in the region and in the industry. This latter concept underlay the Fair Wage Resolutions adopted by the British House of Commons in the 1890s (see below).[1]

Advocates of Fair Wage Policies also argued that in industries that were characterized by widespread sub-contracting, such as construction, the practice of 'shopping work around', put significantly more downward pressure on wages compared to industries where employment relationships were regularized and there was a greater degree of bargaining balance between workers and employers.[2]

While the primary focus of Fair Wage Policies has been on ensuring that wages paid on public works projects are comparable to prevailing norms, concerns about training have also played a role in more recent Canadian legislation. In the construction industry, the apprenticeship system is the primary

[1] For a discussion of the various meanings of 'Fair Wages' in the late 19th and early 20th century, see Pigou, A.C., *The Economics of Welfare*, MacMillan, (originally published 1920, reprinted 1960).

[2] Other analysts, such as Pigou (see note above) put the emphasis on payment by piece-rate rather than the system of sub-contracting, but acknowledged that payment by piece-rate and sub-contracting tended to go hand in hand. See Pigou, *op. cit*.

channel through which trade skills are acquired and formally recognized. In B.C., the 1994 *Skills Development and Fair Wage Act* (since repealed, see below) provided for Fair Wage Schedules and required that workers employed on public works be either certified journeypersons or registered apprentices in their respective trades. The *Act* therefore sought to use the government's role as a purchaser of construction services as a support for the apprenticeship system.

British and American Antecedents

The Emergence of Fair Wage Polices in Britain

In the 19th and early 20th century, British statutory traditions were a significant influence on Canadian policy. In the latter part of the 19th century, several local governments in Britain adopted Fair Wage Policies. In most cases, these policies tied the wages paid to workers on municipal projects to the rates negotiated between trade unions and employers in the same municipality.[3] In some instances, the Fair Wage Policies were not restricted to public works, but required that employers abide by these wages in all of their undertakings.[4] At the national level, some government departments also adopted Fair Wage Policies.[5]

In 1891, the first Fair Wage Resolution was adopted by the House of Commons. The resolution required the government to "make every effort to secure the payment of such wages as are generally accepted as current in each trade for competent workmen."[6] In a similar vein, a subsequent resolution directed that on government projects, workers should be paid "not less than the rate of wages current [in the district]."[7] Phelps Brown comments that the substance of the 1891 Commons resolution was

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[3] For example, the *Report of the Fair Wages Committee* of the British House of Commons describes the practice of Belfast and Manchester: "Belfast and Manchester have standing orders, under which contractors tendering for, or executing, work must be paying all their workpeople the rate of wages, and observing the hours of labour, agreed upon by the organisations of employers and workpeople, and must not prohibit their workpeople from joining trade unions…" cited by Pigou, *op. cit.*, p 532

[4] Pigou, *op. cit.*, cites the *Report of the Fair Wages Committee*: "Unless the requisition that contractors shall pay standard wages is made to apply to all their work, and not merely to their work on particular contracts, unscrupulous contractors can evade it by employing the same men for part of their time on contact work at full wages and for another part of their time on other work at exceptionally low wages." See Pigou, p 532, note

[5] For example, this was done by His Majesty's Stationary Office (HMSO) in 1884. Kahn-Freund, O. 1948 "Legislation Through Adjudication the Legal Aspect of Fair Wage Clauses and Recognised Conditions," *The Modern Law Review*. Vol.11, No. 3 (July): 269-289.

[6] Osborne, C. 1896. "'Fair Wages' in Government Contracts," *The Economic Journal*, Vol.6, No. 21 (March): 153-156

[7] Pigou, *op. cit.*, p 532. The reference is to the 1893 Fair Wage Resolution.

also adopted by many municipalities.[8] In 1909, the House of Commons adopted a resolution that explicitly tied wages and hours of work on government projects to prevailing union wages and hours.

United States – Davis Bacon Act

In the U.S., Fair Wage Policies also originated in 19th century efforts to curtail what were regarded as socially unacceptable terms of employment. The *National Eight Hour Day Act* of 1868 limited daily hours of work on federal government projects and also mandated that daily wages not be reduced, notwithstanding the reduction in hours of work. The modern system of Fair Wage Policy ('Prevailing Wage' Policy in U.S. terminology) is founded in the *Davis-Bacon Act* of 1931. The Act was subsequently amended in 1934 to remedy enforcement deficiencies.

The *Davis-Bacon Act* applies only to construction projects directly undertaken by the federal government. However, the *Davis-Bacon Act* is often given legal effect on federally supported projects by being referenced in the relevant statutes. This is the case, for example, with federally supported highway construction. Work carried out under "referenced statutes" accounts for approximately three-quarters of all covered construction work.

The central principle of the *Davis-Bacon Act* is the specification of a minimum prevailing wage in a geographic area. Administrative practice has used counties as the geographic unit. The "prevailing wage" is based on surveys carried out by the U.S. Department of Labor. These surveys were mandated by a 1935 amendment to the *Act*. Administrative practice for determining the "prevailing" rate based on these surveys has changed over time. Currently, if 50% of the reported wage rates under a survey are the union rate, then the union rate becomes the "prevailing" wage. Previously the required incidence for designating the union rate as the "prevailing" wage was 30% of the surveyed wage rates. If the "prevailing wage" is the union rate, then it is updated whenever the union rate changes. If the "prevailing wage" is survey based, adjustment occurs approximately every three years. The wage amount, it should be noted, is the complete wage package, *inclusive of benefits*.[9]

A companion statute to the *Davis-Bacon Act* is the *Copeland Anti-Kickback Act*. This statute requires prime contractors to file certified payroll statements showing hours, gross pay and effective hourly pay. This is known as the WH347 form. A copy of this form is attached as appendix to this chapter. In our interviews with U.S. officials, we were told that the WH347 payroll reporting form is essential to effective enforcement.

[8] E. H. Phelps Brown, *The Growth of British Industrial Relations*, St. Martin's Press (1959), p 202

[9] A study by the U.S. Bureau of Labor Statistics compared costs on federal projects under Davis-Bacon with projects carried out under 'project agreements.' Project agreements require full compliance with union agreements. The study estimated the cost impact of project agreements at 1.7% to 7% compared to work done under Davis-Bacon. The implication of his study is that Davis-Bacon was generally below union scale. Lyons, M. "The Estimated Cost of Project Labor Agreements on Federal Construction." *Journal of Labor Research*. Vol.19, No. 1 (Winter, 1998): 73-87.

The Davis-Bacon standards apply to all workers on covered construction projects, *regardless of whether they are employees or independent operators*. 'Independent operators', as that term has come to be used in Canada, refers to persons who are self-employed contractors (or who are styled as such) and who do not employ other persons to work along side them. The application of the *Davis-Bacon Act* to independent operators proceeds from a 1935 amendment to the *Act* which provided for coverage *"regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and the laborers or mechanics."* In the absence of this amendment it is likely that a common law interpretation would be applied to the term 'employee' as it is used in the *Davis-Bacon Act* and that this interpretation would have removed from its coverage so called 'independent operators.'[10] The 1935 amendment is especially important in current circumstances when the styling of workers as 'independent operators' is a widespread practice. In the absence of the 1935 amendment the effectiveness of the Davis-Bacon Act would have been significantly diminished. As will be discussed later in this report, *the U.S. application of prevailing wage standards to 'independent operators' contrasts with Canadian practice which exempts 'independent operators' from coverage.*

Under the *Davis-Bacon Act*, an effective hourly rate must be computed for workers paid on a piece rate. Every six months, covered public bodies make a compliance report to the Department of Labor. The Department also has inspectors who enforce compliance with the applicable "prevailing wage" standard. The most common form of non-compliance on the part of contractors is misclassifying workers and paying them at a lower trade rate. Remedy is simply to "make whole." There is no penalty for non-compliance *per se*. However, a contractor who is found guilty of "disregard of obligation" can be barred from doing federal work for three years. Debarment is usually triggered by a fraudulent payroll statement.

Unions, it should be noted, are *not* permitted to make deductions for job targeting funds from wages paid pursuant to "prevailing wage" standards.

Prior to 1979, 41 states had adopted Prevailing Wage Laws on the Davis-Bacon model. Since 1979, 9 states have either repealed their laws or had them invalidated by the courts. Currently, 32 states have Prevailing Wage laws. The first Prevailing Wage law adopted at the state level was enacted by Kentucky in 1891. New York followed in 1894. In some instances, the states simply pick up the federal "prevailing wage" schedule. In other instances, the states have their own procedure for determining the "prevailing wage." Some states conduct regular surveys. Others apply the union wage. Still others apply the union wage, but allow for hearings to be held where interested parties may present evidence to rebut the presumption that the union wage is the prevailing wage. Michigan, Ohio, California and New York use the 'rebuttable presumption principle'. We were informed by a senior U.S. Department of Labor administrator that in these larger states, the "prevailing wage" was commonly the union rate. Most U.S. states with "prevailing wage" laws also bind municipalities to the state law. Since 1979, nine states have repealed their prevailing wage laws.[11] Other states have

[10] For a more detailed and extensive discussion, see the letter of opinion of Terry Yellig, reproduced at Appendix B.

[11] Philips, P. *Kentucky's Prevailing Wage Law* (October, 1999) and Belman, D. and P. Voos. *Prevailing Wage Laws in Construction: The Costs to Repeal to Wisconsin*. Milwaukee, WI: Institute for Wisconsin's Future. (October, 1995)

exempted certain categories of construction, such as schools.[12] In 2005, President Bush waived the application of the Davis-Bacon Act for federally supported rehabilitation and reconstruction in New Orleans after Hurricane Katrina.

Fair Wage Policies in Canada

Federal Jurisdiction

History prior to 1984

In 1900, the federal government established a policy of requiring its contractors to pay fair wages. This policy was implemented through a contracting condition imposed by the federal government on contractors directly engaged by the government. There was no statutory foundation for Fair Wage Policy until adoption of the *Fair Wages and Hours Acts* of 1930 and 1935. The 1935 version of the *Act* provided for an eight-hour day and wage schedules to be drawn up by the Department of Labour.[13]

The *Fair Wages and Hours of Labour Act* is silent on the procedures for determining 'fair wages.' The *Act* defines 'fair wages' as "such wages as are generally accepted as current for competent workmen in the district in which the work is being performed for the character or class of work in which those workmen are respectively engaged…." The method for determining 'fair wages' is left to regulation. Stewart reports that union wages were a leading consideration during WWII when many wage rates were also set by arbitration.[14] Subsequently, reliance on union rates was replaced by wage surveys, after the manner of U.S. practice. Regulations to the *Act* empowered the Regional Directors of the Department of Labour (located in Moncton, Montreal, Toronto, Winnipeg and Vancouver) to conduct surveys and draw on such other information as they deemed pertinent ton establish regional Fair Wage Schedules.[15]

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[12] See Philips (above). Also Ohio State Legislative Service Commission, The Effects of Exemption of School Construction Projects from Ohio's Prevailing Wage Law, Staff Research Report No. 149, May 20, 2002 http://www2.abc.org/documents//Ohio.pdf

[13] Logan, H.A. *Trade Unions in Canada*, MacMillan, 1948 ch XXII. Logan describes several enforcement actions under the 'contracting condition' policy, including complaints arising from work on the Welland Canal.

Goadby, F.M., **"**Introduction [to the Review of Legislation, 1935] **",** *Journal of Comparative Legislation and International Law*, 3rd Ser., Vol. 19, No. 3 (1937) , pp. xxix-xxxvi

Stanley, D. C. "A Review of the Fair Wages and Hours of Labour Act." Human Resources and Skills Development Canada, 1998, Mimeo.

[14] Stewart, B. "War-Time Labour Problems and Policies in Canada," *Canadian Journal of Economics and Political Science*, Vol.7, No. 3 (August, 1941): 426-446.

[15] Regulation 4(1) since amended.

A significant provision of the *Fair Wages and Hours of Labour Act* is section 5 which states, in effect, that the recipient of a federal grant, payment, subsidy, loan, advance or guarantee must comply "insofar as may be practicable" with the operative Fair Wage Schedules. The extension of policy to entities receiving government funds mirrors U.S. practice and thereby goes further than practice in some provincial jurisdictions, including Ontario.

In 1982, the federal government imposed a two-year anti-inflation restraint program on the federal public sector. That program provided for wage increases of 6% in 1982 and 5% in 1983. The '6 and 5' principle was also applied to federal Fair Wage Schedules, in place of increases based on surveys.

Cessation of Updating of Schedules – 1984:

In 1984, the newly elected Conservative government terminated the practice of conducting regular surveys and updating the Fair Wage Schedules. Under the economic conditions of the late 1980's, the 1983 Fair Wage Schedule quickly became irrelevant. In the five years after 1983, average weekly construction earnings increased by 21.4%.[16]

The decision not to update the Fair Wage Schedules left contractors in a legal limbo. Section 7 of the regulations to the *Act* (since amended) provided that "where the Director is unable, or deems it unnecessary to furnish the schedule of wages… there shall be included in the proposed contract a clause (hereinafter referred to as a 'general fair wage clause') providing that all persons in the employ of the contractor… shall be paid fair wages." When operating under the 'general fair wage clause', upon receiving a complaint, the Regional Director of the Department may conduct an *ad hoc* survey and determine retroactively whether the contactor was paying a 'fair wage.' If other Fair Wage Schedules were current, such as those published by some provinces and municipalities, the Director might rely on those in lieu of an *ad hoc* survey. As the 1998 *Stanley Report* reviewing the operation of the Fair Wage system commented, under the 'general fair wage clause', "the contractor does not know, going into the contract, whether the rates he is paying will meet the standards in the event the Director later receives a complaint and conducts a survey to determine whether the rate being paid is indeed a 'fair wage'."[17]

Re-introduction of Updated Schedules

In 1997, the Liberal government announced its intention to issue updated Fair Wage Schedules. In response to concerns expressed in some quarters of the industry, the government appointed Douglas Stanley to review the operation of the *Fair Wages and Hours of Labour Act*. Mr. Stanley submitted his report in October 1998. The *Stanley Report* recommended that the federal government maintain its Fair Wage Policy and update its Fair Wage Schedules. The *Stanley Report* also recommended adopting

[16] Statistics Canada, *Canadian Economic Observer*, Historical Statistical Supplement Cat 11-210

[17] Douglas C. Stanley, *A Review of the Fair Wages and Hours of Labour Act*, prepared for the Hon. Lawrence MacAulay, Minister of Labour, October 15, 1998 p 11

provincial Fair Wage Schedules where those exist and are current. A two-year renewal cycle was recommended. The *Stanley Report* also proposed time limits on complaints and recovery applications.

In 1999, pursuant to the advice of the *Stanley Report*, the government issued two new regulations to the *Fair Wages and Hours of Labour Act*. These regulations provided for a more formal procedure for determining Fair Wages. Section 4(1) of the new regulations provided for adoption of provincially determined Fair Wage Schedules where those are current. Where there are no current provincial schedules, section 4(2) provided that "the fair wage shall be equivalent to the average of salaries paid in that district for the character or class of work, based on statistical estimates produced by Statistics Canada from an occupational survey of the construction sector." Unlike U.S. practice, there is no administrative rule for adopting the union rate when that rate represents a certain minimum percentage of the observations in the survey.

The wage schedules for Quebec and the Yukon were considered current and were adopted.[18] For other provinces, Statistics Canada wage surveys (The *National Construction Industry Wage Rate Surveys*) were mandated.

Rationale for Re-Introducing Updated Schedules

The Regulatory Impact Analysis Statement that accompanied the issuance of new regulations in September 1999 set out the rationale for updating and maintaining Fair Wage Schedules. At the heart of this rationale was a recognition that the historic role of Fair Wage Policies was still relevant, namely "to ensure that workers employed on federal project sites are paid a fair wage and are treated fairly." The Statement continued: "the government has decided to put in safeguards to protect workers from exploitation, combat the underground economy and promote quality construction. It is impossible to quantify in dollars the value to individuals of being treated fairly." The Statement also cited the Stanley Report's conclusion that "construction workers were vulnerable to abuses regarding their wages" The Statement also noted that "the reintroduction of wage schedules will protect contractors from unfair competition by ensuring that successful bids are not based on substandard wage rates." The Statement further commented that "[current] schedules should deter the continued growth of the underground economy by discouraging the use of under-the-table workers who receive substandard wage rates." Finally, the Statement commented that "the cost of fair wage schedules is

[18] In February of 1995, the Regional Director of the (federal) Department of Labour for British Columbia directed that the provincial Fair Wage Schedule pursuant to the province's *Skills Development and Fair Wage Act* would be adopted as the federal schedule. The provincial schedule established one rate for each trade across the province. This action on the part of the Regional Director of Labour was struck down by the divisional court in 2000. The divisional court found that the Director's action was not supported by the *Fair Wages and Hours of Labour Act* since the latter intended that the prescribed wages be "…generally accepted as current… *in any district* from which workmen… are expected to be drawn" [emphasis added]. The divisional court found that the Regional Director erred in not establishing that the provincial schedule was appropriate in all regions of the province. *Kinetic Construction Ltd. v Canada (Attorney General), Administrative Law Report*s, 27 Admin. L.R. (3d) pp 296-308

negligible compared to the value of the contracts and the portion of these contracts representing the wages being paid."[19]

Narrow Meaning of 'Wages'

Neither the *Fair Wages and Hours of Labour Act* nor its regulations define 'wages'. In the *Canada Labour Code* (Part III – Employment Standards), wages has a broad definition - "wages includes every form of remuneration for work performed, but does not include tips and other gratuities."[20] However, under the *Fair Wages and Hours of Labour Act*, by administrative practice, 'wages' has been given a narrow interpretation. The current schedule states that the "fair wage rate refers to straight wages and does *not* include compensation in the form of benefits (for example, medical, dental or pension plans or bonuses)."[21] Consequently, the surveys conducted by Statistics Canada, in support of the Fair Wage Policy, track *only* straight wages. The surveys exclude from compensation any amounts paid by employers for benefits, including amounts paid for statutorily required vacation pay and benefits.[22] As noted earlier, this contrasts with practice in the U.S. where prevailing wage surveys take account of benefits.

Application to 'Independent Operators':

The treatment of 'independent operators' is an important policy issue. An 'independent operator' is a person who is self-employed (i.e., works as an independent contractor) and who employs no other persons to work along side him or her. As discussed in other studies, many construction employers style their workers as 'independent operators' so as to escape obligations for EI, CPP, workers compensation, source deductions, minimum employment standards, *etc*.[23]

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[19] *Canada Gazette*, Fair Wages and Hours of Labour Act, Regulatory Impact and Analysis Statement, vol. 133, no. 20, September 19, 1999 available at http://canadagazette.gc.ca/partII/1999/19990929/html/sor362-e.html

[20] *Canada Labour Code,* Part III, Section 166 – Definitions

[21] Government of Canada, Fair Wage Schedule for Federal Construction Contracts, Labour Conditions – Appendix A, December 2000

[22] Statistics Canada, *National Construction Industry Wage Rate Survey in the Province of Ontario – Methodology Report*, December 2004. In discussing verification of collected data, the Methodology Report is explicit: "make sure wages reported excluded vacation pay and benefits." p 7 http://www.statcan.ca/english/sdds/document/2935_D15_T9_V2_E.pdf There has been criticism by the Independent Contractors and Business Association and the Merit Contractors Association that the surveys were flawed in that respondents may not have been aware that only straight wages were being surveyed. The ICBA and the MCA have claimed that some unionized contractors reported their total wage package thereby causing Statistics Canada to over-estimate the prevailing wage.

[23] The problem of independent operators is discussed at length in Prism Economics and Analysis and T.E. Armstrong Consulting, *Attacking the Underground Economy in the ICI Sector of*

Section 3(1) of the Federal *Fair Wages and Hours of Labour Act*, provides that 'fair wages' will be paid to "all persons in the employ of the contractor, subcontractor *or any other person doing or contracting to do the whole or any part of the work…*" This would appear to provide for application of the *Act* to 'independent operators' as well as employees. Section 7(1) of the Regulations uses similar phrasing: "there shall be included in every contract a provision that all persons employed by the contractor or subcontractor *or other person doing or contracting to do the whole or any part of the work* of the contract shall be paid fair wages." Administrative practice, however, is to limit the application of Fair Wage Schedules to employees. In the course of an investigation, a federal labour standards officer might determine that a worker styled as an 'independent operator' is, in fact, an employee. However, a worker who is properly classed as an 'independent operator' would *not* be covered by the Fair Wage Schedules.[24] As noted above, this contrasts with the *Davis-Bacon Act* which explicitly extends coverage beyond 'employees' and therefore includes 'independent operators'

The Federal Fair Wage Schedule in Ontario:

Statistics Canada was not able to complete a wage rate survey in Ontario in sufficient time to post federal Schedules as required by the *Fair Wages and Hours of Labour Act*. Therefore, based on the recommendation of an industry consultation group in the early fall of 1999, the 1995 provincial schedules were modified by adding an amount equal to the general wage adjustment estimated by other Statistics Canada data. Interim federal Fair Wage Schedules containing rates based on these amounts were published in October 1999, pending completion of the Statistics Canada survey. In the late spring of 2000, Statistics Canada conducted a survey of wages paid in the Ontario construction industry. Data on wages paid in 1999 were collected from 3,450 employers in the ICI and road building sectors . The overall response rate from these companies was 74%. The survey identified eight fair wage zones in Ontario based on Statistics Canada's Economic Regions. In December 2000, the federal government issued new Fair Wage Schedules for Ontario, based on the Statistics Canada survey. The Fair Wage Schedule was amended in 2003 to provide a separate rate of pay for apprentices, based on the percentages of the journeyperson rate set out in provincial trade regulations. (Prior to this amendment, the Fair Wage Schedules required that all persons be paid the relevant journeyperson rate. This policy effectively denied employment opportunities on federal government construction sites to apprentices, since few contractors were willing to pay the journeyperson rate to an apprentice. The amended schedules brought federal practice into line with industry practice as well as provincial policy and regulations.)

Ontario's Construction Industry, study prepared for the Ontario Construction Secretariat (2004)

[24] This administrative practice was confirmed in an email to the authors by Mr. Bruce Boughen Manager – Labour Standards, Operations, Human Resources and Social Development Canada, dated March 28, 2006: "… in applying the legislation, it is our view that there must be an employer/employee relationship… However, when we run across situations where there are several persons who appear to be working for a contractor, but that contractor alleges that these people are individual contractors under a sub-contract, we take the time to ascertain whether or not there is an employee/employer relationship. We use the usual common law tests for this."

The most recent Fair Wage Schedules for Ontario were issued on January 17, 2005. These Schedules are based on the results of a Statistics Canada survey published in December 2004. The federal government is currently working on the basis of a five-year survey cycle. The next survey would be conducted in 2009. At present, there is no procedure for making adjustments to the Fair Wage Schedules during the period between surveys, though officials suggested that such procedures may be developed upon completion of the next survey. The five-year cycle is clearly not optimal given the changes in the construction labour market that can occur over such an extended period. The length of time between surveys reflects the costs of conducting surveys. Officials indicated that they would welcome provincial cost-sharing of these surveys and that such involvement might also permit a compression of the five-year cycle.

Comparing Scheduled Fair Wages and Union Rates in Ontario:

The Federal Fair Wage Schedule for Ontario sets out rates for 36 trades and occupations across eight geographic zones. To gauge the relationship between the Fair Wage Schedule and union rates, we compared the rates set out in the schedule to provincial ICI rates as at January 17, 2005 when the current Fair Wage Schedule was released. It should be noted that this comparison omits union increases that went into effect on May 1, 2005. The trades we compared were: electrician, plumber, sheet metal worker, carpenter, and painter. On average, for these trades, the Fair Wage was 86.5% of the union basic wage at the journeyperson level. The ratio was over 90% for the three compulsory trades (electrician, plumber and sheet metal worker). For carpenters the ratio was 86.4%, while for painters, the ratio was 68.7%. Regional differences ranged from a low of 58.1% to a high of 100%. To compare the Fair Wage to the union package requires that we adjust the Fair Wage upward by 7% to take account of statutory requirements for vacation and holiday pay. This 7% is already reflected in the union wage package. On this basis, the Fair Wage was approximately 68% of the union wage package. Across trades and regions, this ranged from a high of 77% to a low of 48%.

In many cases, unionized employers also must pay premiums for overtime, travel, *etc*. that are not required of non-union employers. Depending on circumstances, these premium costs can be significant. Figure No. 3 describes a notional comparison of union and non-union labour costs where a Fair Wage Policy mandates parity on straight wages.

Figure No. 3
Comparing Union and Non-Union Compensation

- In construction, union collective agreements typically provide for non-wage compensation (benefits) equal to approximately 33% of straight wages, or 25% of the total wage package. Collective agreements are normally negotiated on a total package basis, with the union or the parties jointly determining the allocation of the package across wages and other benefits.
- Non-wage benefits in union collective agreements include an amount (usually 10%) for vacation and holiday pay. This amount includes the 7% that is statutorily required for vacation and holiday pay under Employment Standards legislation. This 7% is also mandatory for non-union employers.
- In addition to non-wage benefits, union collective agreements also commonly provide for premium payments for overtime that are more generous than under Employment Standards legislation. As well, collective agreements often provide for travel time payments and meal allowances, under certain conditions. The cost of these benefits is not included in the wage package and is dependent on circumstances. In some cases, unions will waive these requirements. Some collective agreement provide for double-time after 36 hours. On a project where the normal weekly hours are 40, this implies a 10% additional benefit. The cost of these additional premia on particular projects can range from 0% to 13-13%.
- Some larger non-union contactors provide benefits over and above statutory requirements.
- The following table compares compensation using a *notional* example on the assumption that a Fair Wage Policy mandates parity in straight wages:

	Union	Non-Union
Straight Wages	$25.00	$25.00
Statutory Vacation and Holiday Pay (7%)	$1.75	$1.75
Non-Statutory Benefits	$4.50	unknown
Sub-Total	$31.25	$26.75
Union Difference excluding Premium Payments	16.8%	
Non-Statutory Premium Payments	$0.00 to $4.00	$0.00
Union Difference including Premium Payments	16.8% to 31.8%	

Administration and Enforcement:

The Fair Wage Schedules are part of the contract between the federal government and a contractor undertaking work for the federal government. A contractor is also required to post the Fair Wage Schedules at the place of work. Enforcement is chiefly complaint based. Complaints may be made by affected workers, other contractors, or by unions. Payroll records are subject to inspection which may be undertaken in response to complaints or other reasonable grounds for suspecting non-compliance.

The Fair Wage Schedules, it should be noted, apply only to direct employment relationships. Workers who are engaged as 'independent operators' would not be covered by the Fair Wage Schedules.

Fair Wage Policies in Ontario

Ontario followed the federal government's lead in 1936 by adopting the *Government Contracts Hours and Wages Act*. This legislation essentially mirrored the 1935 federal *Fair Wages and Hours of Labour Act*. Contractors with the government were obligated to pay 'fair wages.' 'Fair wages' had the same meaning as in the federal *Fair Wages and Hours of Labour Act*. Like the federal Act, the Ontario legislation also applied the 'fair wage' obligation to any entity receiving a grant, loan or subsidy. The method of determining 'fair wage' schedules was left to regulation. It should be noted, however, that in recent decades, the Ontario government's Fair Wage Policy was *not* founded on the *Government Contracts Hours and Wages Act* but rather on the government's general regulatory powers. The *Government Contracts Hours and Wages Act* was repealed, effective September 4, 2001.

The most recent version of Ontario's Fair Wage Policy is set out in Order-in-Council 773/95 adopted in 1995. For construction, that regulation provided for three Fair Wage Schedules - ICI construction, sewer and watermain construction, and roads construction. In preparing Fair Wage Schedules, the Ministry of Labour was authorized to distinguish between different urban areas and different non-urban areas. The procedure for determining "fair and reasonable" rates was left to the Ministry's judgement.

In urban areas, contactors were allowed to pay up to 15% of the scheduled Fair Wage rate in non-statutory benefits. In non-urban areas, 100% of the Fair Wage rate had to be paid as straight wages.

Prior to 1995, Fair Wage Schedules were established intermittently. Schedules were devised on a regional basis for each construction trade. There were no fixed intervals for reviewing the schedules. In non-urban areas, data for the schedules was collected through surveys. In urban areas, the controlling comparisons were the prevailing union rates. In general terms, the non-urban Fair Wage rates averaged approximately 65% of the union rate in the particular zone. In urban areas, the Fair Wage rates were equivalent to approximately 80-85% of the prevailing union rate. *In developing schedules pursuant to the 1995 OIC, for urban zones, the Ministry elected to tie the Fair Wage rate to the basic wage rate in the predominant collective agreement as at April 1, 1995*. For non-urban zones, the previous rates were increased by 9.6%. It should be noted that by tying the Fair Wage rates to the April 1, 1995 union rates, the Fair Wage Schedule was deliberately lagging negotiated increases which took effect on or about May 1, 1995, pursuant to the triennial bargaining cycle for provincial ICI agreements.

Section 4 of the 1995 OIC directed the Ministry of Labour to update the Fair Wage Schedules on April 1st of each year. This provision was repealed in 1995 by the new Conservative government. Since 1995, no new Fair Wage Schedules have been issued. However, the 1995 schedules are still technically operative and continue to be referenced in government tendering documents.

Unlike the federal *Fair Wages and Hours of Labour Act* (and the repealed, but previously inoperative provincial *Government Contracts Hours and Wages Act*), Ontario's Fair Wage Policy is limited in its application to ministries of the government and direct agencies of the government, such as the Ontario Realty Corporation, the Ontario Transportation Corporation, the Ontario Clean Water Agency and the

Ontario Housing Corporation. The Fair Wage Policy does *not* apply to entities in receipt of provincial grants, subsidies, loans, etc.

Enforcement of the Ontario Fair Wage Schedule is complaint-based. Unlike administration of the *Davis-Bacon Act*, there are no inspections (except pursuant to a complaint), no reporting requirements, and no audits.

Ontario's Fair Wage Policy presumes an employer/employee relationship. A complaint is registered by an employee against an employer. An 'independent operator' would not be deemed an employee, but rather a sub-contractor. As such, an 'independent operator' in effect would be making a complaint against himself or herself. As under the federal Fair Wage Policy, an 'independent operator' would only be able to pursue remedy by first establishing that he or she was, in fact, an employee and not a sub-contractor.

Other Provinces and Territories

Construction employment conditions can be regulated through any or all of (1) generally applicable labour standards legislation, (2) statutes that are specific to the construction industry, and (3) statutes or contracting policies that are specific to government funded or government initiated construction work.

In Canada, only the federal government and the Yukon have current Fair Wage Policies based on statutes. (The Yukon applies the federal *Fair Wages and Hours of Labour Act*).

In Quebec, since 1969, all construction has been governed by the *Act Respecting Labour Relations, Vocational Training, and Manpower Management in the Construction Industry*. That legislation effectively requires virtually all construction to be carried out under the terms of provincially negotiated collective agreements. Under these conditions, a specific Fair Wage Schedule applicable only to public sector work would be superfluous. Prior to 1972, the 'decree system' operated in Quebec's construction industry. Under the 'decree system', the economic terms of collective agreements (where they were regarded as predominant in a local labour market) were extended by regulation to all construction, including projects undertaken by employers not bound to the collective agreement. As a result, virtually all public sector construction was covered either directly, or by decree, by the union wage rates.[25]

Manitoba also regulates its construction industry through a separate statute – the *Construction Industry Wages Act*. This legislation empowers the government to establish bipartite 'Wages Boards' that can recommend minimum wages for the various trades. These minimum wages apply to all construction work – both public and private. The last regulation issued under this authority was in 1991. However,

[25] Geoffrey H. Brennan, *The Big Picture: Broader-Based Bargaining and the Decree System*, Ontario Federation of Labour (1993) and Jean Bernier, *L'exension juridique des conventions collectives au Québec*, Commission consultative sur le travail, Publications Québec (1986)

the government has indicated its intention to release a new schedule, based on industry consultations, with effect form June 2006..

Nova Scotia also has wage-setting legislation that is specific to the construction industry. The last wage regulation issued under that statute was in 1974.

New Brunswick establishes minimum wages for government construction work by regulation (Reg. 90-149) to the provincial *Employment Standards Act*. However, the last publication of this regulation was in 1990.

In 1995, Saskatchewan adopted the Crown Construction Tendering Agreement (CCTA). The CCTA consolidated a number of *ad hoc* agreements which, since 1992, had established a 'union preference' policy. Both the Saskatchewan Provincial Building and Construction Trades Council and the Construction Labour Relations Association were parties to the CCTA. The CCTA was subsequently dropped. Currently, different branches of the Saskatchewan government have different policies. At Property Management, the policy applies to projects valued at $500,000 or more. In essence, if there is a provincial collective agreement , the worker is paid that wage, regardless of whether his employer is bound to the collective agreement. For roads work, there is no Fair Wage policy. There are "Fair Wage" principles applicable to crown corporations, but no policies. Adherence to the principles is voluntary.

British Columbia introduced a Fair Wage Policy by order-in-council in March 1992 and subsequently adopted the *Skills Development and Fair Wage Act* in June of 1994.[26] The *Act* was repealed by the Liberal government in September of 2001. The B.C. *Act* followed federal practice in applying Fair Wage Schedules to the government, crown agencies and "any public institution that receives provincial money for construction." The *Act* was distinctive in requiring all employees to be either certified journeypersons or registered apprentices. In this respect the *Act* specifically sought to use provincial spending on construction to support the government's objective of strengthening the apprenticeship training system in British Columbia. The *Act* applied to all provincially-funded construction above $250,000 in pre-tender value. Fair Wages were set at approximately 90% of the union rate plus a minimum of $4.00 to be paid as benefits (approximately 16-20% of straight wages). As noted earlier, the provincial schedule also established a common rate for each trade that was applicable irrespective of region within the province. (The former *Wage (Public Construction) Act, 1972* provided for regional rates.)

The following table summarizes administration under the B.C. *Act*:

[26] The *Skills Development and Fair Wage Act* replaced the *Wage (Public Construction) Act, 1972*

Figure No. 4
Administration and Enforcement Indicators
Skills Development and Fair Wage Act (British Columbia[27])

Year	Inspections	Compliance Orders	Recovered Wages
	Data not available		
1995-96	Data not available		
1997-98	517	231	>$400,000
1998-99	725	191	> $550,000
1999-00	1,026	123	> $365,000

The Yukon has a Fair Wage Policy that is distinct from the federal Fair Wage system. The schedules under the Yukon's policy are deemed by the federal government to be current and therefore have been adopted by the federal government for the federal Fair Wage Schedules. The Yukon establishes its Fair Wage Schedules by order-in-council pursuant to section 105 of the Territory's *Employment Standards Act*. A new schedule takes effect in April of this year. A review of the schedule takes place every three years, at a minimum. Annual adjustments, effective on April 1st of each year, are made based on changes in the Consumer Price Index. The determination of Fair Wage Schedules is handled by the Employment Standards Board which is established under the *Act*. The Board comprises a chair and two representatives of employers and employees.

Municipalities other than the City of Toronto

Several municipalities in Canada have adopted Fair Wage policies applicable to municipal construction. Of these, the most long-standing has been the Fair Wage policy adopted by Toronto. This policy is discussed below.

Other municipalities that operate Fair Wage Policies or other wage related policies applicable to construction include:

- Hamilton
- London
- Mississauga
- Peel Region
- Oshawa
- Kawartha Lakes
- Thunder Bay
- Peterborough
- New Westminster

[27] based on British Columbia, Ministry of Labour - *Annual Reports*

The Kawartha Lakes Fair Wage Policy follows the Ontario government policy, as does the City of London. Mississauga's policy only requires documentation of wage payments. Peel Region applies the provincial *Fairness is a Two-Way Street Act* requirements to Quebec-based contractors and workers. Thunder Bay tracks the provincial ICI agreements and provides for a tie-in to the union wage package. The Peterborough policy applies only to "non-skilled workers" and references both the Ontario government policy and the current collective agreement between the city and CUPE.

Windsor is currently considering a Fair Wage Policy. Proposals for Fair Wage Policies were not adopted in Edmonton and Sudbury. Burnaby effectively ceased renewing its policy in 1988. Vancouver also abandoned its Fair Wage Policy. Edmonton rescinded its Fair Wage Policy in 1999.

A summary of key features of municipal Fair Wage Policies is presented in Figure No. 4, following the next section.

City of Toronto

The City of Toronto first adopted its Fair Wage Policy in 1893. The policy covers five construction sectors: ICI, roads, sewer and watermain construction, heavy construction, and utilities construction. Prior to 1953, the Fair Wage Policy applied only to the City of Toronto, not to the suburban municipalities which were legally distinct units of municipal government. Following the establishment of Metropolitan Toronto in 1953, the Fair Wage Policy applied to the City of Toronto and to the Metropolitan level of administration, but not to the constituent suburban municipalities. After amalgamation in 1998, the Fair Wage Policy was adopted by the amalgamated City of Toronto and applied to all municipal operations. The Fair Wage Policy also applies to garment, security and cleaning services. However, the greatest proportion of covered purchases of services is in the construction industry. The City of Toronto Housing Corporation operates its own Fair Wage Policy. The University of Toronto, by policy, applies the City of Toronto's Fair Wage Schedules.

The scheduled Fair Wages are tied to negotiated rates in the union sector. The Fair Wage Schedule is renewed every three years, but adjusted annually in line with negotiated increases. In the ICI sector, the scheduled Fair Wage is directly tied to the union wage package, inclusive of benefits, but excluding contributions to smaller funds such as employer association fees, union dues, industry promotion funds, *etc*. In practice, for ICI work in 2005, the scheduled Fair Wage rate is 93-95% of the union wage package. A similar linking practice is followed with respect to local agreements in the other sectors. As a practical matter, it should be noted that the City of Toronto is bound to nine of the provincial ICI agreements. In the other sectors, especially roads construction, the local industry is predominantly unionized. Consequently, most construction work is performed under collective agreements.

In recent years, purchased construction has averaged approximately $500 million. The City employs three staff to administer its Fair Wage Policy. These staff review approximately 2,700 responses to tenders and vet approximately 5,000 companies annually for compliance with the policy. In addition, the staff act on complaints. Complaints may be made by workers, unions, or other companies. In 2004, 54 complaints were investigated, resulting in 184 workers receiving additional compensation. A

contractor that commits two violations in a three year period is liable to be disqualified from City work.

Figure No. 5
Summary of Municipal Fair Wage Policies

Municipality	Industrial Scope	Contracting Scope	Employment Conditions Coverage
Hamilton	All construction > $100,000	Contractors Subcontractors	Wages Benefits Hours Overtime
Kawartha Lakes		Contractors Subcontractors	Wages Hours
Kitchener	Roads Construction > $115,000		Wages Hours Working Conditions
London	All construction	Contractors Subcontractors	Wages Benefits Working conditions
Mississauga	All construction		Requires documentation of wage payments
Oshawa	All construction contracts		Wages
Peel Region	All construction		Applies the provincial *Fairness is A Two-Way Street Act* to Quebec-based contractors
Peterborough	All Work	Contractors Subcontractors	Non-skilled workers paid the higher of the Ontario Fair Wage rate or the rate in the local CUPE agreement.
Thunder Bay	ICI Construction > $100,000	Contractors Subcontractors Owner-operators exempt	Wages Benefits Hours
Toronto	All contracts	Contractors Subcontractors Owner-operators exempt	Wages Benefits Hours Health and Safety Non-discrimination
New Westminster	All major construction contracts	Contractors Subcontractors	Wages

Conclusion

There is no unambiguous trend in Fair Wage Policy. The federal government has re-instituted its historic Fair Wage Policy, based on surveys of prevailing wages. Ontario maintains a Fair Wage Policy, but has not updated the schedules since 1995. In Quebec, Fair Wage Policy is redundant given the statutory regime governing the construction industry. Effectively all public sector work in Quebec is done under the terms of collective agreements. Manitoba is updating a system of wage regulation that is specific to the construction industry. There is no across-the-board policy in Saskatchewan, but major projects undertaken by the provincial government are done either under collective agreements or on the basis of wage rates that are tied to collective agreements. Like Manitoba, Nova Scotia and New Brunswick have distinct legislative authorities for regulating minimum construction wages. However, these provinces have allowed regulations under those statutes to lapse. The Yukon administers a Fair Wage Policy that is updated every three years and is adjusted annually, based on changes in the CPI. At the municipal level, the longest standing and most comprehensive policy is that of the City of Toronto. Thunder Bay mirrors Toronto in linking its Fair Wage schedules to provincial agreements. Other Ontario municipalities have policies, some of which reference the now dated provincial policy. The Peterborough policy applies only to "non-skilled" labour and reflects the measures often advocated by "living wage" proponents. Municipal interventions to promote "living wages" are more common in the U.S. than in Canada.[28] In general, Canadian practice does not apply "fair wage" coverage to 'independent operators.'

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[28] Current information on the 'living wage' movement in the U.S can be found at: http://www.livingwagecampaign.org Although motivated by concerns similar to those that historically informed Fair Wage Policies, the 'living wage' movement is focused on the wages of the lowest paid and is not restricted to public procurement policy.

Appendix

U.S. Department of Labor

Form WH-347

Payroll Reporting under the *Davis-Bacon Act*

U.S. Department of Labor
Employment Standards Administration
Wage and Hour Division

PAYROLL

(For Contractor's Optional Use; See Instructions, Form WH-347 Inst.)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐ ADDRESS

OMB No.: 1215-0149
Expires: 03/31/2006

PAYROLL NO. FOR WEEK ENDING PROJECT AND LOCATION PROJECT OR CONTRACT NO.

(1) NAME, ADDRESS, AND SOCIAL SECURITY NUMBER OF EMPLOYEE	(2) NO. OF WITHHOLDING EXEMPTIONS	(3) WORK CLASSIFICATION	OT. OR ST.	(4) DAY AND DATE / HOURS WORKED EACH DAY	(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS: FICA	WITH-HOLDING TAX			OTHER	TOTAL DEDUCTIONS	(9) NET WAGES PAID FOR WEEK
			O											
			S											
			O											
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We estimate that it will take an average of 56 minutes to complete this collection of information, including time for reviewing instructions searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection of information, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, ESA, U. S. Department of Labor, Room S3502, 200 Constitution Avenue, N. W., Washington, D. C. 20210.

Date _____

I, _____ _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____; that during the payroll period commencing on the
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,

all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Start. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination Incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, of if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ – in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ – Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

* U.S. G.P.O.:1997 519.861

3. Fair Wage Policies and Construction Costs

This chapter outlines a theoretical framework for discussing the impact of Fair Wage Policies on construction costs and then reviews the empirical literature.

Theoretical Perspectives

The impact of a Fair Wage Policy on construction costs depends on five factors:

1. the relationship between the wage rates established by a Fair Wage Policy and the wage rates that would have been paid by a low bidder who was otherwise compliant with all legal obligations;
2. the labour share of construction costs;
3. compression of the profit margin of the low bidder;
4. the productivity-inducing effects of higher labour costs;
5. the impact of a Fair Wage Policy on curtailing underground practices on public sector construction.

Fair Wages, Market Wages and Union Wages:

Clearly the most important factor to be taken into account when considering the cost impact of a Fair Wage Policy is the relation of the wage rates under a Fair Wage Policy to the rates that prevail in the labour market.

- In the federal jurisdiction, the Fair Wage Policy is confined to straight wages and excludes benefits. As described in the previous chapter, the federal jurisdiction uses a wage survey to determine a 'prevailing wage.' (As noted, in 2005 this was approximately 86.5% of the union straight wage, with considerable variance from this average, depending on regional factors.)
- In 1995, Ontario tied straight wages in urban regions to the union wage, but excluded benefits. The municipalities of London and Kawartha Lakes follow provincial policy.
- Oshawa ties straight wages to the union wage, but excludes benefits.

- Toronto ties Fair Wages to the union wage package (inclusive of benefits), but excludes employer contributions to certain types of funds. (As noted, in 2005, this resulted in a Fair Wage schedule that is approximately 93-95% of the union wage package.) Thunder Bay applies a direct tie-in to the negotiated provincial wage package.
- Even when kept current, some Fair Wage Schedules lag the union rates owing to differences in the adjustment cycle. Fair Wage Schedules are typically adjusted on January 1st, while union wages are adjusted on May 1st. (Thus for 8 months of the year, the Fair Wage schedule lags the union rates by one year.)

To describe the impact of a Fair Wage policy on construction costs, let us suppose that the Fair Wage rate is 100% of the union wage rate, excluding benefits. This is similar to the 1995 Ontario policy for urban regions, though higher than the current federal policy, but lower than the City of Toronto and the Thunder Bay policies.

The *cost impact* of a Fair Wage Policy depends on the relationship between the rates established under the Fair Wage Schedule and the rates that prevail in the labour market. The *competitiveness impact* depends on the relationship between the Fair Wage rates and total wage package costs for unionized contactors. To understand either impact, it is important to distinguish between large projects, which include most new construction, and smaller projects which are mainly renovation and repair.[29] This distinction is important because large projects and small projects are typically undertaken by different contactors. New construction work tends to be done by larger contractors who often engage a significant number of workers. By contrast, renovation and repair projects are usually done by smaller contractors. Larger contractors tend to pay higher wages. In some cases, they also provide benefits packages to their employees. Smaller contractors usually pay lower wages and typically provide far fewer benefits or no benefits at all.

Two studies are helpful in gauging the union/non-union wage difference. The first of these is Statistics Canada's *National Construction Wage Survey*. This survey excludes employers with fewer than 5 employees, but otherwise takes no account of employer size. Given the large number of small contractors in the construction industry, this survey is biased towards small employers. The survey suggests that there is a wage premium of approximately 33.8% across 36 different construction occupations. This estimate is unweighted by either employer size or occupation. Because this survey is biased towards small employers, we regard it as a good measure of the union/non-union wage difference for renovation and repair work, but not for new construction work.

The second study, also published by Statistics Canada, was undertaken by Fang and Verma.[30] This study adjusts for differences in employer size. Using data from the 1999 *Workplace and Employee Survey*, Fang and Verma estimate that for the construction occupations, the union wage premium is

[29] Overall, repair expenditures account for approximately 15% of total construction work. Statistics Canada, CANSIM Table No. 029-0005

[30] Tony Fang and Anil Verma, "Union wage premium," *Perspectives on Labour and Income*, (Winter, 2002), Statistics Canada, Cat. No. 75-001-XPE. See Charts B and C

14.6%. In our view, the Fang and Verma estimates provide a reasonable measure of the union/non-union wage difference for new construction work.

Labour Share of Construction Costs:

The share of labour costs in total construction costs is important in determining the overall cost impact of an increase in labour costs. Construction costs fall broadly into five categories: (1) construction labour, (2) materials, (3) machinery and equipment, (4) professional and administrative labour, and (5) other overheads. The construction labour share varies, depending on the nature of the project. For renovation and repair projects, the construction labour share is likely to be around 50-55%. For new construction, Statistics Canada data suggest a labour share of around 33%.[31] Other studies point to a lower share. For example, a study of school construction for the U.S. Bureau of Labor Statistics found that the labour share of construction costs averaged just over 28% in the early 1970s.[32]

Based on the above discussion, we conclude that, in the absence of other factors, a Fair Wage Policy that provided for parity with union wages might increase the cost of new construction projects by around 4.8% (14.6% labour cost increase x 33% labour cost share). However, two other factors come into play which tend to bring this estimate down - potential reductions in non-union contractors' profit margins and increases in productivity.

Offsetting Factors:

The direct effect of a Fair Wage Policy on construction costs is potentially offset, in whole or in part, by compression of the profit margins and by the productivity-inducing effects of higher labour costs.

Compression of Profit Margins:
It is naïve to believe that additional costs are always passed though, in a lock-step fashion, to the purchasers of construction. In some cases, labour costs may be fully reflected in the tender price proposed by a contractor. In other cases, some portion of higher labour costs may be absorbed. Operating margins in the construction industry are especially variable. In periods of buoyant demand, margins widen significantly. In periods of depressed demand and more intense competition, operating margins can be severely compressed. Statistics Canada reports that on a national basis, profit margins fluctuated from 5.6% in 1998 to 7.1% in 1999 and fell to 4.5% in 2000.[33] Whether some portion of the cost increase resulting from a Fair Wage Policy will lead to a compression of profit margins will be dependent on economic conditions and the intensity of competition.

Productivity Effects:

[31] Statistics Canada, CANSIM, Table No. 029-0026

[32] U.S. Bureau of Labor Statistics, John G. Olsen, "Labor and Materials Requirement for New School Construction," *Monthly Labor Review*, April 1979, vol 102, no. 4, p 41

[33] Statistics Canada, CANSIM, Table No. 034-0001

In construction, productivity effects arise from four sources:

- the substitution of skilled labour for semi-skilled or unskilled labour,
- the substitution of machinery and equipment for labour,
- the substitution of pre-fabricated components for on-site construction, and
- more efficient project management.

Skills: The substitution of skilled labour for semi-skilled and unskilled labour arises from the greater impact of unionization on the wages of semi-skilled and unskilled labour. A Fair Wage Policy that mirrors union wages or that picks up the union wage as a 'prevailing wage' will have a comparable effect on the wage ratio between semi-skilled or unskilled labour and skilled labour. The Statistics Canada survey of construction wages in Ontario found that in 2004, the union wage premium for mandatory trades was approximately 24.3%.[34] For labourers, the union wage premium was 53.4%. In voluntary trades where certification is common in the unionized sector, but uncommon in the non-union sector, the union wage premium is similarly large: glaziers (47.5%), painters (69.6%), re-bar workers (76.3%), and carpenters (52.8%). A wage premium of this magnitude leads employers to substitute skilled trades for unskilled workers and certified (or equivalently experienced) tradespersons for uncertified workers. It is not surprising, therefore, that Bourdon and Levitt find that one of the key differences between a union crew and a non-union crew is that the non-union crew has a higher proportion of helpers and semi-skilled members.[35]

Mechanization / Pre-Fabricated Components: Over the longer term, an increase in the cost of labour encourages mechanization of procedures to reduce labour costs. Similarly, an increase in on-site labour costs encourages the use of pre-fabricated components. The impact of these trends manifests itself over extended periods of time. Construction functions differ in the degree to which they can be mechanized and construction projects differ in the degree to which they can utilize pre-fabricated components. In general, however, contractors that are compelled to operate in a higher cost environment are more likely to be early adopters of technologies that reduce labour costs.

Project Management: It is widely recognized in the construction industry that inefficiencies in project management can have a significant impact on costs. These inefficiencies relate to the scheduling of contractors, the delivery of materials, and incorrectly done work that must be re-done. Several studies have attempted to quantify the cost gains that can be achieved with improved project management. For example, a study of formwork on four highway bridges in Pennsylvania found that the labour input varied from 0.132 hours per sq. ft. to 0.181 hours per sq ft. – a difference of 37%.[36]

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[34] Statistics Canada, Construction Wage Survey – Ontario, 2004. If to the mandatory trades, we add trades which are technically voluntary, but for which a trade qualification or licence is the norm, the union wage premium increases marginally to 24.3%.

[35] Bourdon, C. and R. Levitt, *Union and Open-Shop Construction: Compensation, Work Practices and Labor Markets*. (1980) Lexington, MA: D.C. Heath.

[36] Randolph, Thomas H., *et. al.*, *Benchmarking of Labor-Intensive Construction Activities*, April 2002, International Council for Research and Innovation in Building and Construction (Rotterdam, The Netherlands), Table No. 1, p 17

In the same vein, a study for Alberta Economic Development, estimated that 44% of work time on major Alberta Construction projects was unproductive. This consisted of supervision time (2%), early quits or late starts (13%) and other unproductive activities, such as waiting for materials or equipment or waiting for work to be completed before commencing a task.[37] These estimates are similar to those developed by the US-based Construction Industry Round Table. Studies for the Round Table concluded that over 60% of construction time was unproductive, in the sense of not being direct construction time.[38]

Empirical Studies

There are only a few studies of the impact of Fair Wage Policies in Canada – all focused on British Columbia. There are several other studies that examine the impact of Prevailing Wage laws in the United States. In general, these studies support the conclusion that the offsetting factors described above reduce the impact of increased labour costs. Some studies find that the offsetting factors effectively eliminate the impact of increased labour costs or reduce the impact to quite minor proportions. Other studies find a significant residual effect to Prevailing Wage laws or Fair Wage Policies. There are also a group of earlier studies that examine the impact of construction unions on productivity and costs.

Technical Limitations of Cost Studies:

There are broadly four types of comparisons that are used in cost studies:

1. comparisons between public and private construction in jurisdictions with Prevailing Wage laws;
2. comparisons of public construction in a single jurisdiction between two time periods – one when a Prevailing Wage law was operative, and a second when the law was not operative;
3. comparisons of public construction between jurisdictions that have Prevailing Wage laws and those which do not.
4. comparisons of wage costs under Prevailing Wage laws with those that would otherwise be paid, coupled with a notional estimate of the impact of increased wage rates on construction costs, usually assuming no offsetting productivity gains or reductions in profit margins.

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[37] McTague, Bob and Jergeas, George T., *Productivity Improvements on Alberta Major Construction Projects* (May 2002), Alberta Economic Development

[38] cited in McTague and Jergeas, above

Each of these procedures has its own drawbacks. Comparisons between public and private construction are often looking at different types of construction products. It is uncommon for elementary and secondary schools to be built by the private sector. The same is the case with correctional facilities. Even in the U.S., only a small minority of hospitals are built by the private sector. As well, construction standards may differ between the public and private sector. Hence comparisons between public and private construction runs the risk of comparing dissimilar construction products and failing to take due account of factors that are specific to the type of construction.

Comparisons between two time periods may fail to take account of cost factors that are specific to a particular period of time. The construction industry is highly cyclical. Pricing in the construction industry reflects alternative opportunities. A building constructed during a period when demand is slack will almost invariably be less expensive than one constructed during a period when demand is buoyant. As well, the methodology for making inflation adjustments in the pricing of construction products is, at best, only approximate. (These technical issues are discussed in the OCS publication, *A Guide to Construction Cost Sources).* [39]

Comparisons across jurisdictions potentially hold more promise. However, due account must be taken of the potential regional influence on wages that are unrelated to the presence or absence of Prevailing Wage laws.

And lastly, comparisons based solely on differences in wage rates are highly suspect since they explicitly discount any influence of wage costs on construction methods. That wage costs have a profound effect on construction methods is self-evident to anyone in the industry.

Even when due account is taken of the factors discussed above, cost comparisons are still subject to estimation error. There are many factors that are specific to a construction project and which make comparisons to other projects, at best, only approximate:

- Square footage differences may affect costs, since the cost of some construction procedures is sensitive to the size of a project .
- Even if total square footage is identical, construction costs will be affected by the number of stories and the size of the footprint.
- Differences in soil conditions affect foundation costs.
- Interior finish specifications may differ.
- Building materials may differ both for structural members (concrete vs. steel) and for cladding.
- The use of pre-fabricated components may differ.
- Location may affect the delivered cost of materials. Location may also affect the availability of certain types of labour.

[39] Prism Economics and Analysis and Department of Civil Engineering, University of Toronto, *A Guide to Construction Cost Sources* (November 2001), prepared for the Ontario Construction Secretariat http://www.iciconstruction.com/site/pdf/CC_Sources.pdf

- Mechanical specifications may differ, e.g., whether there are elevators.
- Seasonal factors and weather conditions can affect costs. In some circumstances, seasonal factors can also affect labour costs.

All of these factors potentially diminish the validity of cost comparison studies. However, their significance pales in comparison to the potential impact of underground economy practices. Cost comparisons are only valid if it can be presumed that employers were fully compliant with legal obligations in *all* of the projects under comparison. While there have been no published studies of underground practices in the US construction industry, there is substantial evidence that such practices are widespread in the Canadian industry.[40] The most important of these practices, from the perspective of cost comparison in the ICI and civil sectors, is the styling of workers as 'independent operators' (i.e., sub-contractors) so as to escape from employer obligations for workers compensation, EI and CPP, health taxes (where applicable), and payment of vacation and statutory holiday benefits under employment standards legislation. As well, by styling workers as 'independent operators', no source deductions are administered and no T-4 slips are issued. It is widely believed that workers who are engaged as 'independent operators' do not report all of their income for tax purposes. In some conditions, contractors may factor this into the piece rate or hourly rate that they pay their so-called 'independent operators'. The lower costs achieved by styling workers as 'independent operators' may be reflected in higher profit margins or in lower bid prices. Fair Wage Policies, when they are comprehensive and enforced, have the effect of deterring underground practices. It is therefore unreasonable to compare the cost of a project completed under conditions of full compliance with legal obligations with the cost of a project in which underground practices were widespread.

Impact of Construction Unions on Wages:

Studies undertaken by Allen, using data from the 1970s, concluded that unionized labour generated approximately 50% more value-added per work than non-union labour. Allen argued that this difference was attributable to higher skills associated with a strong apprenticeship system and also economies of scale (related to project management and mechanization) associated with larger construction projects that were more likely to be undertaken by unionized contractors.[41] In later work,

[40] Ontario Construction Secretariat, *Estimates of Revenue Losses to Governments as a Result of Underground Practices in the Ontario Construction Industry*, report prepared by Prism Economics and Analysis (August 2001). Available at http://www.undergroundeconomy.ca/reports.html

[41] Allen, S.G. "Unionized Construction Workers Are More Productive," *Quarterly Journal of Economics*. (May, 1984): 251-274.

Allen, S. G. "Why Construction Industry Productivity is Declining." *Review of Economics and Statistics*. Vol. 67, No. 4 (November, 1985): 661-669.

Allen, S. G., "Unionization and Productivity in Office Building and School Construction," *Industrial and Labor Relations Review* (January, 1986)

Allen, S. G., "Union Work Rules and Efficiency in the Building Trades," *Journal of Labor Economics*. Vol 4, No. 2. (April, 1986): 212-242.

Allen, S. G., "Unions and Efficiency in Private Sector Construction," NBER (1987).

he suggested that the productivity advantage of the unionized sector has declined. One of the implications of the 'scale effect' noted by Allen is that in smaller projects, such as schools and hospitals, "non-union contractors have lower costs at all output levels."[42]

U.S. Studies on the Impact of Prevailing Wage Laws:

Numerous U.S. studies have endeavoured to estimate the effect of Prevailing Wage laws by estimating the impact of this legislation on wage rates and applying this estimate to construction costs. These studies focus on the labour market effects of Prevailing Wage laws and typically do not take account of any offsetting productivity gains. These types of studies generally find a cost impact of 1.5 – 3.0%.[43]

A 1975 study by Thieblot examined a one-month suspension of the Davis-Bacon Act in 1971. During this period, projects that had been previously bid but not awarded were re-bid without the Prevailing Wage requirement. Theiblot reported that bids declined by 0.5%.[44] A subsequent revision of Thieblot's analysis by Gould and Bittlingmayer increased the estimated impact of Davis-Bacon on

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Allen, S. G., "Unions and Efficiency in Private Sector Construction: further Evidence," *Industrial Relations* (Spring, 1988): 232-240.

Allen, S. G., "Declining Unionization in Construction: The Facts and Reasons," *Industrial and Labor Relations Review*. Vol. 41, No. 3 (April, 1988) 343-359.

[42] Allen, S.G., "Can Union Labor Ever Cost Less?" *Quarterly Journal of Economics* (May, 1987) pp 348-373

[43] Examples of this type of analysis include:

- Gujarati, D. . "The Economics of the Davis-Bacon Act," *Journal of Business*. Vol.40, No. 3 (July, 1967):303.
- United States, Government Accounting Office (GAO), *The Davis-Bacon Act Should Be Repealed,* Washington, D.C., 1979
- United States, Government Accounting Office (GAO), *Modifying the Davis-Bacon Act: Implications for the Labor Market and the Federal Budget,* Washington, D.C. (1981)
- Goldfarb, R. and J. Morrall III. "The Davis-Bacon Act: An Appraisal of Recent Studies." *Industrial and Labor Relations Review*. Vol. 34, No. 2 (January, 1981.: 191-206
- Goldfarb, Robert S. and John F. Morrall,, "Cost Implications of Changing Davis-Bacon Administration," *Policy Analysis,* Vol. 4, No. 4, (1978) 439-453.
- Gould, John P. and Bittlingmayer, George, , *The Economics of Davis-Bacon Act: An Analysis of Prevailing Wage Laws,* Washington, D.C.: American Enterprise Institute for Public Policy Research. (1980)
- Thieblot, Armand J., Jr., , *Prevailing Wage Legislation: The Davis Bacon Act, State "Little Davis-Bacon " Acts, The Walsh-Healey Act, and The Service Contract Act,* Philadelphia: Industrial Research Unit, The Wharton School, University of Pennsylvania. (1986)

[44] Thieblot, Armand J., *The Davis-Bacon Act*, Labor Relations and Public Policy Series, Report No. 10, University of Pennsylvania Press (1975)

costs to 4-7%, largely based on adjustments for inflation.[45] The Gould and Bittlingmayer study was undertaken for the American Enterprise Institute, a conservative 'think tank' opposed to Prevailing Wage laws. The validity of the revision proposed by Gould and Bittlingmayer depends crucially on the accuracy of the methodology used to make the inflation adjustments. As noted earlier, construction is a sector in which price indices are much more approximate than in other sectors.

In a 1983 study, Fraundorf, Farrell and Mason examined the impact of Prevailing Wage laws on the cost of non-residential construction projects in *rural* counties. The study was based on a comparison of 215 projects, approximately equally divided between private projects (not subject to Prevailing Wage requirements) and public projects (subject to Prevailing Wage requirements). The study concluded that the cost impact was in the order of 26.1%. The study found no evidence of significant, offsetting productivity gains. The authors cautioned that higher standards in public sector construction could have led to an over-estimation of cost differences. It should also be kept in mind that the study examined only projects constructed in *rural* areas.[46]

We found no other study that approached the order of magnitude found by Fraundorf *et al*. A 1983 study by the Congressional Budget Office estimated that the cost impact of the Davis-Bacon Act on federally supported construction work was 3.7%.[47] A study by Allen, using data for the period 1973-1978 examined the impact of Prevailing Wage laws on various types of publicly funded construction. The study concluded that the Prevailing Wage laws raised construction costs by less that 0.5%.[48]

Recent studies have generally found only a modest cost impact or no impact at all. Prus uses data drawn from the F. W. Dodge database of awarded projects to compare public and private construction across several states. He reports a cost impact of approximately 5%.[49] However, within the terms of his methodology, this is not considered statistically significant.[50] In a later study, Prus examines public school construction costs in 5 mid-Atlantic states. The author found that Prevailing Wage laws increased school construction costs by 3.8%, but again reported that the results did not meet the test of

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[45] Gould, John P. and George Bittlingmayer, *The Economics of the Davis-Bacon Act*, American Enterprise Institute for Public Policy Research, Washington D.C (1980)

[46] Fraundorf, M.N., J. Farrell and R. Masson. 1984. "The Effect of the Davis-Bacon Act on Construction Costs in Rural Areas," *Review of Economics and Statistics*. Vol.66, No.1 (February): 142-146

[47] cited in 104th Congress, 1st Session, *Senate Report 104-80, Repeal of the Davis-Bacon Act*, footnote no. 25

[48] Allen, S. G., 1983. "Much Ado About Davis-Bacon: A Critical Review and New Evidence," *Journal of Law and Economics*, Vol. 26, No. 3 (October): 707-736.

[49] Prus, Mark J. 1996. "The Effect of State Prevailing Wage Laws on Total Construction Costs." (January) (mimeo).

[50] 'Statistical significance' is a measure of the reliability of a finding, not its importance. Statistical significance measures probability that the correlation of two variables would have occurred by chance. If the probability of the correlation being a chance result is greater than 5%, the correlation is generally considered to be statistically insignificant.

statistical significance (i.e., there was a greater than 5% probability that the finding was the result of chance.)[51]

Like Prus, Philips also uses the F W Dodge database. In a 1996 study, Philips compares square foot construction costs across 9 states – 5 with Prevailing Wage laws and 4 without. The study covers five types buildings, of which Philips regards schools as the most directly comparable. Figure No. 6 summarizes Philips' results:

Figure No. 6
Per Sq. Ft. Construction Costs (Mean), 1992-1994
Nine South-western and Inter-mountain States[52]

	States with Prevailing Wage Laws		States without Prevailing Wage Laws	
	Cost	No. of Buildings	Cost	No. of Buildings
Offices	$95	23	$93	20
Warehouses	$61	12	$96	8
Elementary Schools	$67	116	$73	59
Middle Schools	$66	76	$77	28
High Schools	$70	31	$81	22

As can be seen from Figure No. 6, for 4 of the 5 building types, Philips found that per square foot construction costs were *lower* in Prevailing Wage law states. However, Philips' results do not pass the test of statistical significance.

Philips repeated his initial study over a longer time period for 15 Great Plains states. Figure No. 7 summarizes the findings from this study:

[51] Prus, Mark J., "Prevailing Wage Laws and School Construction Costs: An Analysis of Public School Construction in Maryland and the Mid-Atlantic States. (January 1999) mimeo.

[52] Philips, Peter, *Square Foot Construction Costs for Newly Constructed State and Local Schools, Offices and Warehouses in Nine Southwestern and Intermountain States, 1992-1994*, prepared for the Legislative Education Study Committee of the New Mexico State Legislature, September 6, 1996

Figure No. 7
Per Sq. Ft. Construction Costs (Mean), 19912-1997
Fifteen Great Plains States[53]

	States with Prevailing Wage Laws		States without Prevailing Wage Laws	
	Cost	No. of Buildings	Cost	No. of Buildings
Elementary Schools	$76.847	365	$76.23	365
Middle Schools	$70.02	238	$72.35	238
High Schools	$72.87	187	$76.73	187

On a weighted average basis, the cost of school construction in the states with Prevailing Wage laws is marginally lower - $73.85 vs $75.18. This is similar to the results shown in Figure No. 6. However, as with that study, the results in Figure No. 7 do not meet the test of statistical significance.

A 1999 study by Phillips based on a study of 6,000 school projects across various states concluded that Prevailing Wage Laws may add 2.4% to construction costs. However, Phillips cautioned that this finding did not meet the statistical significance test.[54] These findings were confirmed in a 2001 study of public school construction in Ohio, Michigan and Kentucky. Phillips found in this study that costs were increased by less than 1%, but that the results did not meet the statistical significance test.[55]

Wial examined changes in construction costs in Pennsylvania after the state weakened its Prevailing Wage law requirements for school construction. In a review of projects undertaken between 1996 and 1998, Wial concluded that although wage costs had been reduced, total construction costs did not decline. The inference Wial draws from the data is that the shift to non-union labour was accompanied by a reduction in productivity that offset the effect of lower wage rates.[56]

Other studies have found somewhat stronger evidence of an impact on costs. Based on data for 1997 to 2001, a 2002 analysis by the Ohio Legislative Service Commission estimated cost savings from

[53] Philips, Peter. *Kansas and Prevailing Wage Legislation*. Paper Prepared for the Kansas Senate Labor and Industries Committee (February) 1998.

[54] Phillips, Peter, Kentucky's Prevailing Wage Law: Its History, Purpose and Effect (1999) mimeo. These findings were subsequently published in Azari-Rad, H., P. Philips and M. J. Prus "State Prevailing Wage Laws and School Construction Costs," *Industrial Relations*. Vol.42, No.3 (July, 2003). The authors reported that for states with weak Prevailing Wage Laws, the cost impact was marginally *negative*: -1.2% to -0.1%. For states with stronger Prevailing Wage laws, the cost impact was positive: +2.5% to +3.1%.

[55] Phillips, Peter, A Comparison of Public School Construction Costs in Three Midwestern States that have changed their Prevailing Wages Laws in the 1990s: Kentucky, Ohio and Michigan, 2001 mimeo

[56] Wial, Howard, *Do Lower Prevailing Wages Reduce Public Construction Costs*, Briefing Paper 99/2, Keystone Research Center, Harrisburg, Pennsylvania (1999)

exempting public school construction from the state's Prevailing Wage Law. The study estimated savings of: 1.2% on new construction, 19.9% on additions and 10.7% on alterations. On a weighted average basis, cost savings were 10.6%. The study cautioned that difficulties in comparing construction projects affected the reliability of the comparisons.[57] The marked difference between savings on new construction and savings on additions and alterations is consistent with the analysis suggested earlier in this paper (see page 32).

Dunn *et al*. examined the impact of California's Prevailing Wage Law on the construction of state-supported low-income housing. They concluded that Prevailing Wage Law requirements increased the cost of low-income housing construction by 9% to 11%.[58]

Canadian Studies on the Impact of Fair Wage Policies:

The only Canadian studies focus on the impact of B.C.'s *Skills Development and Fair Wage Act* which was enacted in 1994 (but initially introduced by order-in-council in 1992) and repealed in 2001. The schedules issued under the *Act* provided for wages equal to approximately 90% of the union rates.[59] A 1993 study by the Quantity Surveyors Association of B.C. estimated that B.C.'s Fair Wage Policy added approximately 6.5–7.5% to construction costs. This conclusion was based on an analysis of bids submitted by open shop contractors on 7 projects following the introduction of the Fair Wage policy. The analysis was a short run comparison, in that it did not allow for any subsequent productivity gains arising as a result of higher labour costs. Stanbury, Globerman and Vertinsky also point to cost consequences in their 1993 discussion of B.C.'s Fair Wage Policy. Their argument rests principally on the Quantity Surveyors Association study which was the only cost study available at the time, and on various U.S. studies that claimed to identify cost increases attributable to Prevailing Wage laws.[60] A later commentary by the Fraser Institute cites an increase of 4% on B.C. construction costs.[61] [62]

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[57] Ohio Legislative Service Commission, The Effects of the Exemption of School Construction Projects from Ohio's Prevailing Wage Law, Staff Research Report No. 149, SB 102 Report (May 20, 2002) See Table 5, page 23

[58] Sara Dunn, Quigley, John M, and Rosenthal, Larry A., "The Effects of Prevailing Wage Requirements on the Cost of Low-Income Housing, *Industrial and Labor Relations Review*, vol 59, no. 1 (October, 2005)

[59] Bilginsoy, Cihan and Philips, Peter, "Prevailing Wage Regulations and School Construction Costs: Evidence from British Coumbia," *Journal of Education Finance*, vol. 24 (Winter, 2000), p3

[60] William Stanbury, Steven Globerman and Ilan Vertinsky, "Analysis of Fair Wage Policies: British Columbia and Other Jurisdictions" (1993)

[61] Fraser Institute, *Critical Issues*, Labour Policy (1998) http://oldfraser.lexi.net/publications/critical_issues/1998/bc_report/labour_policy.html See also Steven Globerman, "Defending Fair Wage Laws Stands Logic on Its Head, *Fraser Forum*, July 1997

[62] Other discussions which are critical of B.C. Fair Wage Policy and which cite the Quantity Surveyors Association Study and the Stanbury *et al* paper include:

A 1997 study by Prus examined bid prices on 556 public and private construction projects in B.C. The study compares costs in the period 1989-1992 (*i.e.*, before the Fair Wage Policy) with the cost of similar projects built between 1992 and 1995 (*i.e.*, after the Fair Wage Policy). Figure No. 8 summarizes square metre costs for various types of public sector construction in the before and after periods.

Figure No. 8
Comparison of Square Metre Costs - Public Sector Construction in B.C.[63]

	Before Fair Wage	After Fair Wage	Difference
	1989-1992	1992-1995	
Public Elementary and Secondary Schools	$1,464.33	$1,494.13	2.0%
Provincial Government office buildings	$1,169.07	$1,235.25	5.7%
Hospitals	$1,532.33	$1,547.72	1.0%
Medical / Welfare Buildings	$1,380.40	$1,258.06	-8.9%

The estimates for schools were judged the most reliable because schools are approximately similar construction products. The 2% difference in costs was less than required to meet the test of statistical significance (*i.e.*, there was a greater than 5% probability that the 2% difference was a chance result).

Bilginsoy and Philips examined construction costs for a smaller sample of elementary and secondary schools. The unadjusted results showed a 16% cost increase. However, the cost increase fell to 6.1% when adjustments were made for the construction business cycle, the number of bidders, and the type of structure. This finding of a 6.1% cost impact, however, did not meet the test of statistical significance.

In another study, Duncan and Prus examined bid prices on 723 public and private projects (with a project value over $1.5 million) undertaken in B.C. between 1989 and 1995. Their study found that the cost ratio between public and private construction projects was unchanged between 1989-92 and 1992-95. They further reported no statistically significant impact of B.C.'s Fair Wage Policy on public sector construction costs.[64]

- Bill Stewart, "The Fairness Myth," Open Mind, vol. 9 published by the Merit Contactors Association http://meritca.com/publications/fairnessmyth.pdf
- Phil Hochstein, "Federal Fair Wages," Merit Contractors Association http://meritca.com/publications/open%20mind/open%20mind%206/fedfairwages.htm

[63] Prus, Mark, "The Effect of Skills Development and Fair Wage Policy on Public Construction Costs," in R. Kunin, *The Impact of Skills Development and Fair Wage Policy on Construction Cost in BC*, for the B.C. Construction Labour Relations Association (1997)

[64] Duncan, K. and Prus, M., "Prevailing Wage Laws and Constructions: Evidence from British Columbia's Skills Development and Fair Wage Policy," in H. Azari-Rad, P. Philips and M. Pruis, eds., *The Economics of Prevailing Wage Laws*. Hampshire: Ashgate. pp. 123-148. (2005)

Conclusions and Observations on Cost Studies:

The first conclusion that can be drawn from the comparative cost literature is that, *in general, claims of double-digit increases in construction costs are not supported by the empirical literature*. The exceptions are a 1983 U.S. study (Fraundorf et al.) which examined only rural construction projects and the 1993 study by the Quantity Surveyors Association of British Columbia which looked at only 7 projects and drew its conclusion from an analysis of open shop bids prior to the introduction of B.C. Fair Wage policy. All other studies find either no cost increases or cost increases of a much smaller order of magnitude for new construction work. Moreover, these studies also generally find that even when cost increases are reported, the estimates do not pass the statistical significance test.[65]

The second conclusion, though the evidence is more limited, is that *for repair and renovation construction the cost implications may be more significant than for new construction*. Most of the studies cited covered only new construction. Those that included smaller projects, likely to be in the repair or renovation category, did not isolate this work for separate analysis. The one study that distinguished repair and renovation work (Ohio Legislative Service Commission) estimated a more significant cost for this type of work. This is consistent with the discussion earlier in this chapter which suggested that (1) the wage difference between union and non-union construction is much greater in renovation and repair than in new construction and (2) the scope for offsetting productivity gains is greater on new construction projects than on renovation and repair projects.

The third conclusion is that *productivity gains must be taken into account*. The additional costs that are estimated in the recent studies are significantly less than would be predicted simply by applying an estimate of the wage rate increase to the labour share of construction costs. The difference is attributable to productivity gains. As discussed earlier, these arise chiefly from (1) replacing unskilled and semi-skilled labour with skilled labour, (2) using more capital intensive construction methods, (3) using more pre-fabricated components, and (4) better project management.

The fourth conclusion is that *no general estimate of the impact of Prevailing Wage laws or Fair Wage policies can be made since the impact of these policies depends on the relationship of the mandated wage to the alternative non-union wage*. This relationship varies across regions and trades.

In the discussion on page 34, we considered the impact of a notional Fair Wage Policy that tied wages (but not benefits) to the union wage. We suggested that, without allowing for offsetting productivity gains, for new construction this would have a cost impact of approximately 4.8%. For repair and renovation construction an estimate in the range of 11-17% would be likely.[66] The cost comparison studies indicate that productivity gains would reduce the impact on new construction. How much these productivity gains would affect costs is difficult to determine. Some studies appear to suggest that productivity gains could entirely eliminate the cost impact. Most studies, however, still find a

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[65] See note 47

[66] This is based on a wage difference of 33.8% per the Statistics Canada survey (p 32) and a labour share of total repair and renovation costs (including labour, materials, depreciation on equipment, and mark-up) that runs from 33% to 50%.

residual cost impact, although it usually does not pass the test for statistical significance. Broadly we conclude that an estimate of 2-4% cost increases on new construction would be consistent with the preponderance of the empirical research. Much less is known about productivity factors in repair and renovation work. The measurement and comparison problems are also much greater.[67] In general, however, we think that the scope for productivity gains is lower in renovation and repair work and that the cost impact of a Fair Wage Policy is likely to be closer to the unadjusted estimate (11-17%).

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[67] New construction costs can be express in per sq. fit measurements with adjustments being made for building materials, structure type, etc. However, there is no unit of measurement for comparing repair and renovation work.

4. Training, Occupational Safety, Productivity, and Underground Economy Practices

While the majority of studies address the impact of Fair Wage policies (or Prevailing Wage laws) on public sector construction costs, a complete analysis must take account of other factors that are at least as important. The inference from the previous chapter is that, in the absence of a Fair Wage Policy, there might be modest cost savings on new construction. However, these cost savings would prove to be short-sighted if they were achieved by undermining training, weakening occupational safety, discouraging a focus on productivity, and accommodating underground economy practices.

Training:

Except in the case of B.C's *Skills Development and Fair Wage Act,* the impact of Fair Wage policies (and Prevailing Wage laws) on training is indirect.[68] The hypothesis that Fair Wage policies (or Prevailing Wage laws) support apprenticeship training in the construction industry is based on the following line of reasoning. Construction unions are a bulwark of trades training in the construction industry. Fair Wage policies (or Prevailing Wage laws) contribute to higher union density rates by reducing the competitive margin between unionized and non-union contractors. By inference Fair Wage polices (or Prevailing Wage laws) strengthen apprenticeship training. U.S. studies provide considerable support for this hypothesis. In Canada, the effect of unionization on apprenticeship registrations in the construction industry has not been rigorously studied. However, there is a commonly held view in much of the industry and in the Ontario government that unionization is an important factor in construction apprenticeship rates.

It is generally agreed in the literature on apprenticeship that, at least in the first year and often in the second year, an apprentice's productive contribution is less than his or her wage cost.[69] In subsequent years, the balance changes and recompenses employers in whole or in substantial measure. Nevertheless, viewed from a short-term perspective, employers have a disincentive to take on new apprentices. When low-bid policies are combined with the absence of a Fair Wage policy and intense competition, the result may be to discourage hiring new apprentices where this option is available. In the unionized segment of the construction industry, various collective agreement provisions restrict the ability of employers to substitute helpers for apprentices. Union dispatch systems also endeavour to

[68] B.C.'s *Skills Development and Fair Wage Act* required all workers on covered projects to either hold a certificate of qualification in their trade or be registered apprentices.

[69] Smits, Wendy and Thorsten Stromback, *The Economics of the Apprenticeship System*, Edward Elgar Publishing (2001)

ensure that early stage apprentices secure sufficient employment to meet the requirements for progression in the trade. In the non-union segment of the industry, these pressures and restrictions do not operate. It is not surprising, therefore, that Bourdon and Levitt found that, in the U.S., one of the key differences between unionized crews and open shop crews was the latter's use of helpers in lieu of apprentices, and semi-skilled workers in place of certified journeypersons.[70] This view of the open shop segment of the construction industry is endorsed by the U.S. Business Roundtable.[71] In the U.S., construction unions account for approximately 75-80% of apprentices in construction trades.

Comparisons of apprenticeship registrations between states with Prevailing Wage laws and states without such laws provide strong support for a link between wage regulation and apprenticeship rates. Kelsey's comparison of Missouri (a Prevailing Wage law state) and four non-Prevailing Wage law states in the Great Plains region (Iowa, Kansas, South Dakota and North Dakota) showed that construction apprenticeship registrations declined significantly in the states without Prevailing Wage statutes while the rate increased in Missouri. Figure No. 9 summarizes these data:

Figure No. 9
Comparison of Apprenticeship Registrations in Missouri
and Four Great Plains States without Prevailing Wage Laws,
1973-79 compared to 1987-90[72]

	Missouri	States without Prevailing Wage Laws				
		Iowa	Kansas	North Dakota	South Dakota	Total
1973 - 1979	3,566	1,800	861	686	416	3,763
1987 - 1990	4,526	984	530	180	150	1,844
Percent Change	-+6.9%	-45.3%	-38.4%	-73.8%	63.9%	-51.0%

Philips examined 14 states – 9 with Prevailing Wage laws and 5 without. He compared apprenticeship registrations over the same period as Kelsey. In Philips study, all states experienced a decline in apprenticeship registration, but this decline was more marked in the states without prevailing wage laws (53% vs. 27%).[73] In another study, Philips *et al*. examined apprenticeship data from the 29 states that provided reports to the U.S. Department of Labor for the period 1975 to 1990. A comparison was made of the period 1975-78 and 1987-90. States were grouped into three categories:

[70] See note 29. Bourdon and Levitt's analysis finds confirmation in a 1995-96 comparison of open shop and unionized contractors in Pennsylvania. See, Phillips, Peter, *Kentucky's Prevailing Wage Law: Its History, Purpose and Effect* (1999) mimeo, p 78.

[71] Business Roundtable, *Confronting the Skilled Construction Work Force Shortage*, Construction Cost Effectiveness Task Force, 1997. The U.S. Business Roundtable is an association of CEOs of the leading U.S. companies. It is comparable to the Canadian Council of Chief Executives (formerly the Business Council on National Issues).

[72] Kelsay, Michael P., Wray, L. Randall, and Pinkahm, Kelly D., *The Adverse Economic Impact from Repeal of the Prevailing Wage Law in Missour*i, January 2004

[73] Philips, Peter. *Kansas and Prevailing Wage Legislation*. Paper Prepared for the Kansas Senate Labor and Industries Committee (February) 1998

(1) states with Prevailing Wage laws in both periods, (2) states without Prevailing Wage laws in either period, and (3) states with a Prevailing Wage law in 1975-78 but not in 1987-90. States with Prevailing Wage laws in both periods had an apprenticeship training rate of 3.8% (*i.e.*, ratio of apprentices to the construction work force). States which had no Prevailing Wage law in either period had an apprentice rate of 2.8%. States which repealed their Prevailing Wage law had an apprentice rate of 4.8% in the first period, but only 2.1% in the second period, after repeal.[74]

Bilginsoy's analysis of data from 35 states for the period 1989-1995 found that Prevailing Wage laws are associated with higher registration rates and higher completion rates.[75]

Canadian studies of construction apprenticeship trends are much more limited. Holmes and Singh studied completion probabilities for a single intake of apprentices in B.C. They found that an indenture arrangement involving a union as a sponsor was a significant factor contributing to the likelihood of successful completion of an apprenticeship.[76] A 1997 study by Holmes examined apprenticeship intake from 1984 to 1996, based on administrative data. After a minor decline in 1990, apprenticeship registrations in construction trades dropped sharply in 1991 and continued to fall. The reasons for this decline are unclear. The dramatic fall in apprenticeship registrations was *not* related to any concurrent decline in ICI construction. Holmes examined apprenticeship completions, comparing apprentices who were indentured to employers and apprentices who were indentured to joint boards. The latter are always unionized apprentices. The former are an undetermined mix of union and non-union. The study found a higher completion rate for apprentices indentured to joint boards (65% vs 50%). The introduction of B.C.'s Fair Wage policy in 1992 had no statistically significant impact on apprenticeship completions.[77]

Sweet and Lin examined the impact of unionization from a different perspective. Using data from the *National Apprenticed Trades Survey* they explored the relationship between union membership and apprenticeship completion in the construction trades, taken as a whole. It should be noted that this is

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[74] Philips Peter, Mangum Garth, Waitzman Norm and Yeagle Ann, *Losing Ground: Lessons from the Repeal of Nine "Little Davis-Bacon" Acts*, Working Paper, Department of Economics, University of Utah. (1995)

[75] Bilginsoy, C. . "Wage Regulation and Training: The Impact of State Prevailing Wage Laws on Apprenticeship." in H. Azari-Rad, P. Philips and M. Pruis, eds., *The Economics of Prevailing Wage Laws*. Hampshire: Ashgate. (2005) pp. 149-168. Bilginsoy also found higher cancellation rates in Prevailing Wage law states. However, this may reflect administrative practice. In states with weak administrative practice, an apprenticeship effectively may have been abandoned, but never formally cancelled. The unambiguous indicators are new registration rates and completion rates.

[76] Holmes R. and Singh S., *Completion Probabilities for British Columbia Apprentices in the Construction Trades,* Working Paper. Dept. of Business Admin. and Economics, Simon Fraser University (1994) and Holmes R. and Singh S., *The Effect of Age, Education, Prior Experience and Indenture on Apprenticeship Completion*, Working Paper. Dept. of Business Admin. and Economics, Simon Fraser University (1995)

[77] Holmes Richard, "The Effect of Skills Development and Fair Wage Policy on Construction Trade Apprenticeships," in Kunin, Roslyn, *The Impact of Skills Development and Fair Wage Policy on Construction Costs in British Columbia* (May 1997)

somewhat different than Holmes study, which turned on types of indentureships (*i.e.*, joint board or employer). Sweet and Lin found no significant relationship between union membership and apprenticeship completion, though in some trades and some regions, the relationship was significant – perhaps reflecting differences in indentureship arrangements.[78]

Canadian trade unions in the construction industry have a well developed history of negotiating jointly trusteed 'Training Trust Funds' (TTFs) to which employers make contributions, typically (though not always) as part of the negotiated wage package. In many instances these TTFs support training centres which deliver upgrade training to journeypesons, enrichment training to apprentices, and standard trades training to apprentices. A study by Prism Economics estimated that there are approximately 215 union training centres in Canada's construction industry. These training centres, in total, have approximately 5436 classrooms and 239 trade-related shops. They occupy an estimated 14.8 million square feet. In 2001-02, Prism estimated that union training centres delivered pre-apprentice training to 1,675 persons and apprentice training to 11,093 persons. The centres also delivered upgrade training, general training or health and safety training to 38,459 workers. Somewhat over 25% of unionized construction workers received training in 2001-02 through union training centres. Completion rates were approximately 95% regardless of the type of training. In 2001-02, Prism estimated that union training centres delivered pre-apprentice training to 1,675 persons and apprentice training to 11,093 persons. The centres also delivered upgrade training, general training or health and safety training to 38,459 workers. Somewhat over 25% of unionized construction workers received training in 2001-02 through union training centres. The union training centres employed almost 1,100 full-time and part-time instructors in addition to some 300 administrative staff, some of whom also instruct. The total invested capital for land, building and equipment is approximately $19.6 million for training centres that share premises with a union hall and $77.4 million for stand-alone training centres. In total, the union training centres invest around $8.3 million annually in land, buildings and equipment. The average hourly contribution in 2001-02 was $0.22 per hour. For the sector as a whole this generated approximately $55.6 million in 2001-02.[79] *In light of the scale of this involvement in skills training, it is difficult not to conclude that, in the construction industry, there is a strong linkage between construction unions and skills training. To the degree that Fair Wage policies narrow the competitive margin between union and non-union contractors, they presumptively provide support to skills training in the industry.*

Occupational Safety:

As in the case of training, the impact of Fair Wage policies (or Prevailing Wage laws) on occupational safety performance is indirect. The reasoning is similar. The hypothesis is that construction unions have a positive impact on occupational safety performance. Fair Wage policies (or Prevailing Wage laws) contribute to higher union density rates by reducing the competitive margin between unionized

[78] Sweet, Robert and Lin, Zeng, *Union Membership and Apprenticeship Completion*, Working Paper, 99-06 Labour Education and Training Research Network, York University (1999)

[79] based on, Prism Economics and Analysis, *Training Trust Funds: A Review of their History, Legal Foundations and Implications for Trade Union Training Strategy*, prepared for the Canadian Labour Congress (2006)

and non-union contractors. By inference Fair Wage polices (or Prevailing Wage laws) strengthen health and safety performance. There is evidence from U.S. studies in support of this reasoning. In Canada, there are no published studies and only incidental evidence.

Four factors are believed to establish a link between construction unions and improved health and safety. The first is that health and safety standards may be more rigorously policed on unionized projects. The second factor is the health and safety training that many unions provide to their members. And third, by regularizing employment that is inherently casual, unions encourage low rates of occupational turnover. Experience and age are positively associated with better health and safety performance. And finally, unionization precludes the use of 'independent operators.' This, in turn, implies that all workers on a project are covered by workers' compensation, the premiums for which are paid by employers. In many jurisdictions, workers' compensation premiums reflect actual injury experience, thus providing an incentive for better performance (or a penalty for poor performance.) On non-union projects, a greater proportion of the work force is likely to be 'independent operators' who are excluded from the employer's coverage requirements.

Philips *et al.* studied injury rates for plumbers and pipefitters from 1978 to 1991 across states with Prevailing Wage laws and states without such laws, including states that repealed their laws. The study reported the following injury rates per 100 workers:

Figure No. 10
Plumbers and Pipefitters
Injury Rates per 100 Workers, 1978-1991[80]

States with Prevailing Wage Laws	13.83
States that Repealed Prevailing Wage Laws (Prior to Repeal)	13.54
States that Repealed Prevailing Wage Laws (After Repeal)	15.41
States that Never Had Prevailing Wage Laws	14.74

It is noteworthy that the states that never had Prevailing Wages had injury rates that were 6.5% higher than states with prevailing wage laws. Perhaps even more noteworthy is the deterioration in health and safety in the 'repeal states'. Their injury rate increased by 13.8% after repeal. A subsequent study by Philips covering all construction trades (but fewer states) confirmed this trend. Philips found that states without Prevailing Wage laws reported lost time injuries in construction of 14.25 per 100 workers compared to 11.35 in states with Prevailing Wage laws – a difference of 25.5%.[81] A later study found that in Kentucky, lost time injuries increased from 4.9% of the construction work force to

[80] Philips, Peter, Mangum Garth, Waitzman Norm and Yeagle Ann, *Losing Ground: Lessons from the Repeal of Nine "Little Davis-Bacon" Acts*, Working Paper, Department of Economics, University of Utah. (1995)

[81] Philips, Peter. *Kansas and Prevailing Wage Legislation*. Paper Prepared for the Kansas Senate Labor and Industries Committee (February) 1998

5.4%, following an exemption for school and municipal construction from the state's Prevailing Wage law.[82]

The most comprehensive U.S. study is by Azari-Rad. His analysis of data from 1976 to 1999 across all states found that a Prevailing Wage law was associated in an 8.25% decline in the injury rate relative to states with no Prevailing Wage law (or which had repealed their statute.)[83]

Canadian evidence on the role of construction unions in health and safety performance is more limited. Data analyzed by the Ontario Construction Secretariat for the electrical and mechanical trades over the period 1993 to 1998 shows a marked difference in lost time injuries between union and non-union employers. Figure No. 11 summarizes these data.

Figure No. 11
Lost-time Injuries per 1,000 Workers
Electrical and Mechanical Contracting Rate Groups,
Ontario: 1993 to 1998[84]

	Electrical Contracting		Mechanical Contracting	
	Union	Non-Union	Union	Non-Union
1993	12.1	21.7	15.2	28.0
1994	10.6	21.6	15.0	30.0
1995	9.2	19.4	9.8	24.2
1996	8.7	18.0	9.0	21.8
1997	7.4	15.8	9.9	22.8
1998 (part year)	5.5	14.2	7.7	20.6
Average	8.9	18.5	11.1	24.6

As can be seen from Figure No. 10, the incidence of lost-time injuries was more than double in the non-union sector.

The evidence provides broad support for a link between unionization and superior occupational health and safety performance in the construction industry. Fair Wage policy narrows the competitive margin between union and non-union contractors. Fair Wage policy may thereby contribute to strengthening or supporting the 'union effect' on health and safety performance in the construction industry.

[82] Phillips, Peter, *Kentucky's Prevailing Wage Law: Its History, Purpose and Effect* (1999) mimeo.

[83] Azari-Rad, Hamid, "Prevailing Wage Laws and Injury Rates in Construction," in H. Azari-Rad, P. Philips and M. Pruis, eds., *The Economics of Prevailing Wage Laws*. Hampshire: Ashgate. pp. 169-187. (2005)

[84] Ontario Construction Secretariat

Productivity:

Fair Wage policy can affect construction productivity through two channels. The first is the 'high wage effect.' The second is the 'union effect.' Higher wages can have a positive effect on construction productivity for four reasons. First, higher wages are likely to reduce turnover (at the industry level and also at the employer level) because they increase the relative cost of quitting or being terminated. Reduced turnover encourages the build-up of human capital through experience and direct investment. Human capital increases productivity. Second, the perceived fairness of higher wages may encourage increased effort. Third, in the longer run, higher wages lead to the substitution of capital for labour and to consequent increases in labour productivity. Fourth, higher wages also lead to the substitution of pre-fabricated components for on-site construction. The economies-of-scale associated with pre-fabricated components lead to higher overall productivity. And fifth, higher wages may lead to increased efficiency in project management. The 'high wage effect' on productivity, it should be noted, is independent of whether the work is unionized. It should also be noted that there is no necessary inference from this analysis that the marginal increase in productivity is greater or less than the marginal increase in wages. That is an empirical question. In some circumstances a wage increase may lead to a productivity increase that is less than the increase in wages.

Unions can affect productivity both positively and negatively. Union support for training can have a positive effect on productivity by supporting the build-up of human capital. Also, by regularizing employment in an industry in which employment might otherwise be casual, unions encourage the build-up of human capital through experience. Union work rules requiring the use of certified tradespersons and apprentices may also contribute to higher labour productivity in the long run. Other types of union work rules, especially those pertaining to jurisdiction, may impair productivity either by compelling an over-employment of labour or by triggering workplace disputes. The grievance system may protect some workers who might otherwise be terminated. Dispatch systems assist employers in mobilizing large blocs of skilled labour for large projects. For smaller projects, however, dispatch systems may constrain employers from hiring the workers they would prefer. The 'union effect' on productivity is therefore complex and likely to differ across trades, across regions and across types of construction.

While the 'high wage effect' and the 'union effect' are analytically separate, it is often difficult to distinguish between them since the principal effect of unions is to increase wages. Whether explicitly or not, empirical studies typically conflate the 'high wage effect' and the 'union effect.' Comparisons between union and non-union productivity may also confuse economies of scale with a 'union effect.' Productivity is often greater on larger projects owing to scale economies. Union density may be skewed to employers that typically undertake larger projects. If this is the case, scale economies may be misinterpreted as a union productivity effect.

Several U.S. studies by Allen found strong evidence of a positive productivity effect associated with unionization in the construction industry. The productivity effect measured by Allen conflated the 'high wage effect' and the 'union effect.' Allen's studies, it should be noted are based on data from the 1970's. Allen's first published study estimated the overall union productivity effect in construction at 17-22%. Greater use of skilled labour and possibly apprenticeship training accounted for 15-27%

of this productivity difference.[85] Subsequent studies of office building construction by Allen found that union work rules (chiefly trade jurisdiction lines) added approximately 2% to costs but that these costs, and the costs of higher wages, were offset by superior productivity. In a study for the National Bureau of Economic Research (NBER), Allen concluded that " superior training and reduced hiring costs seem to override the effects of work rules and wages."[86] (Again, keep in mind that the study pertained to offices built in the 1970s.) Large productivity differences were also found in the construction of retail stores and shopping centres.[87] Subsequent studies by Allen suggest that the productivity gap between union and non-union construction has narrowed and that this accounts for a declining union share of the construction market. In the U.S., Allen concluded that the productivity advantage narrowed significantly between 1972 and 1977 and vanished by 1982.[88]

The more recent U.S. studies, which we reviewed in the previous chapter, focus on the impact of Prevailing Wage laws on construction costs. These studies implicitly find a significant productivity effect since the increase in costs is less than what would have been predicted based solely on increases in wage rates and the labour share of total costs. By inference, the impact of higher wage rates was offset by productivity gains (and perhaps lower profit margins). Whether the observed productivity effects were a "high wage effect" or a "union effect" cannot be determined from these studies.

Productivity trends in the Canadian construction industry were recently examined in a study by the Centre for the Study of Living Standards. The study found no apparent relationship between trends in union density and overall trends in construction industry productivity.[89]

The empirical questions, which have not been rigorously studied in the Canadian industry, are (1) are the "high wage effect" and the "union effect" unambiguously positive, and (2) is the productivity effect sufficient to offset the effect of higher wage rates. *The theoretical case for the "high wage effect" is strong. In the longer run, higher wages almost invariably lead to the substitution of capital for labour and to higher productivity. Higher wages also lead to a preference for more skilled labour, especially*

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[85] Allen, S.G. "Unionized Construction Workers Are More Productive," *Quarterly Journal of Economics*. (May, 1984): 251-274.

[86] Allen, S.G. Union Work Rules and Efficiency in the Building Trades, Journal of Economic, vol.4, no. 2, (April, 1986) p 239. See also Allen, S. G., "Unionization and Productivity in Office Building and School Construction," *Industrial and Labor Relations Review* (January, 1986). In this study, Allen estimate the productivity advantage at approximately 30%.

[87] Allen, S. G., "Further Evidence on Union Efficiency in Construction," *Industrial Relations*, vol. 27, no. 2 (Spring, 1988)

[88] Allen, S.G., "Declining Unionization in Construction: The Facts and the Reasons," *Industrial and Labor Relations Review*, vol. 41, no. 3 (April, 1988)

[89] Centre for the Study of Living Standards, *Productivity Trends in the Construction Sector in Canada*, prepared for Canada Mortgage and Housing Corp., November 21, 2001. See discussion at page 55. Productivity trends at the industry level are difficult to measure in construction. The methodology of the price indices used to compare industry output over time is notoriously imprecise. As well, 'union density' is more difficult to measure in the construction industry since the union movement's share of the labour force does not necessarily correspond to market share.

if the wage rates of unskilled and semi-skilled labour increase more than the wage rates of skilled labour. We believe that it is principally this effect that is responsible for the results reported in various U.S. studies that find no cost impact or only a small cost impact as a result of Prevailing Wage laws. The "union effect" (as distinct from the "high wage effect") has been given little attention in the U.S. and none in Canada. The issue here is whether restrictive work rules (chiefly trade jurisdictions) have a greater negative effect on productivity than union policies which support investment in skills. At present, there is no evidence to answer this question one way or the other. Moreover, we should not expect a single answer to be applicable across all trades, all regions and all construction types.

In the context of Fair Wage policies, it should be kept in mind that a Fair Wage policy is *not* a union preference policy. A Fair Wage policy speaks only to wage rates. In this analysis, therefore, the cost implications of a Fair Wage policy revolve principally around the productivity increases associated with the "high wage effect." Under a Fair Wage policy, union contractors are only able to tender successfully when the "union effect" on productivity is at least neutral in comparison with non-union contractors.

Underground Economy Practices:

Earlier studies commissioned by the OCS described the nature and magnitude of the underground economy. In non-residential construction, the most important underground practice is not avoidance of income tax and GST through cash transactions, but styling workers as 'independent operators.' This has three benefits to an employer. First the employer avoids the cost of EI, CPP, Employer Health Tax (where applicable), and workers' compensation premiums. These benefits can be measured. Second, the employer avoids the cost of vacation and statutory holiday pays under the Employment Standards Act. This benefit can also be measured. The third benefit is more uncertain. There are no income tax deductions for independent operators and no T-4 slips. Independent operators may under-report their income. A study by Statistics Canada estimated that more than one half of the net income of unincorporated construction businesses (mainly, but not exclusively 'independent operators') was not reported for income tax purposes.[90] When labour market conditions permit, employers may use the presumption that some income is not reported to leverage down piece-rates or hourly rates. In this way, employers can effectively transfer some of the illicit advantage from the worker to themselves. It is difficult to determine to what degree the purchasers of construction then benefit from the cost savings that accrue to contractors who use 'independent operators.' In large measure, this depends on the intensity of competition. However, on public sector construction projects it is highly likely that costs are lower. Public sector projects are typically awarded on a low bid basis, assuming that proponents meet minimum qualification requirements. For most public sector projects there are no restricted bidders lists, aside from qualification requirements. This practice encourages contractors who use 'independent operators' to pass on some fraction of their cost savings to the public sector bodies that are purchasing construction. The public sector, therefore, loses from underground practices, but also, at least to some degree, gains. Precise estimates of gains and losses are not possible. However, broad estimates can be offered.

[90] Statistics Canada, *The Size of the Underground Economy in Canada,* by Gylliane Gervais, 1994, Cat. No. 16-603E No. 2. See Table No. 2, p 13.

Figure No. 12 estimates the impact on construction costs and of using 'independent operators' and the losses to the governments and the WSIB. In the illustration, the notional project would have a cost of $3.0 million if construction employment were fully compliant with legal requirements.

Figure No. 12
Estimated Cost Savings to Public Sector Builder
from Engaging Contractors Who Use Independent Operators

Project Cost		$3,000,000	
Aggregate Costs			
Professional Fees (Legal, Architectural, Engineering, etc.)		$150,000	5%
Materials		$1,050,000	35%
Machinery and Equipment and Overheads		$750,000	25%
Labour		$1,050,000	35%
		$3,000,000	100%
Contractors' Savings on Labour Costs from Using Independent Operators			
EI - Employer Contribution		2.62%	
CPP - Employer Contribution		4.95%	
EHT (at minimum rate)		0.98%	
WSIB Premiums (Construction Industry Average)		6.18%	
Vacation Pay under ESA		4.00%	
Statutory Holiday Pay under ESA		3.46%	
Total Savings		22.19%	
Proportion of Independent Operators: Estimate		30%	
Savings from Using Independent Operators		$69,899	
Savings to Public Sector Owner:	up to	2.33%	

In the above notional example, a project of $3.0 million total cost has total labour costs of $1,050,000 (35%) on the assumption of full compliance. It is estimated that 30% of the engaged work force would be 'independent operators'. The labour cost savings from using 'independent operators' would average 22.19%. Total labour cost savings would be $69,899. The potential benefit to a public sector builder *if* all of this cost savings were passed on would be 2.33% on the total project costs. In some cases, only a portion of this cost savings will actually be passed.

Who finances the cost savings in the above example? *Of the estimated $69,899 in total savings, one third is provided by the province through losses on the EHT account and by the WSIB.* Another third is provided by the worker who loses his or her statutory entitlements to vacation and holiday pay. And finally, a third is financed by revenue losses to the EI and CPP system. Additionally there are likely to be income tax losses. Statistics Canada's estimates for *un*reported income by unincorporated construction businesses for the period 1985 to 1991 ranged from a low of 57% to a high of 65%. If we conservatively assume that only 35% of income now goes unreported, the revenue loss to the province would be equal to about one seventh of the potential savings of 2.33%[91] Overall, e*ven if all*

[91] Based on:

of the potential 2.33% cost savings are passed on to the public sector builder, just under half of these 'savings' are actually financed by provincial government and WSIB revenue losses.

The 'gain' to the province from turning a blind eye to the improper styling of workers as 'independent operators' is barely over 1% of construction costs, and probably less. This hardly seems commensurate with weakening occupational health and safety, eviscerating minimum employment standards, undermining apprenticeship training, and encouraging other forms of non-compliance.

Conclusions and Observations:

The foregoing discussion suggests four conclusions:

1. In the construction industry, there is a strong linkage between construction unions and skills training. By narrowing the competitive margin between union and non-union contractors, Fair Wage policies provide support to skills training in the industry.

2. The evidence provides broad support for a link between unionization and superior occupational health and safety performance in the construction industry. Fair Wage policy may thereby contribute to strengthening or supporting the 'union effect' on health and safety performance in the construction industry.

3. U.S. studies provide evidence of a productivity effect arising from Prevailing Wage laws. The productivity gains either wholly or substantially offset the effect on construction costs of higher wage rates. The probable sources of this productivity gain are: the substitution of capital for labour and the substation of skilled labour for unskilled and semi-skilled labour. Higher wage costs may also promote more effective project management. These sources of productivity are termed the 'high wage effect'. There is also a distinct 'union effect'. Unions promote productivity through their investment in training and by pursuing policies that promote the use of skilled labour. However, some work restrictions – chiefly trade jurisdiction rules and disputes over those rules – are likely to decrease productivity. How these factors balance out is uncertain.

Total Labour Income on Project	$1,050,000	
Independent Operator Share of Labour Income - Estimate 30%	$315,000	
Conservative Estimate of Income Not Reported: 35%	$110,250	
Provincial Share of Evaded Income Tax: 9.15%	$10,088	
Federal Share of Evaded Income Tax: 22%	$24,255	continued next page
Total Potential Savings 2.33%	$69,900	
Attributable to Lost EHT	$3,087	
Attributable to Lost WSIB Contributions	$19,467	
Lost Income Tax	$10,088	
	$32,642	

4. In Ontario, the total estimated cost saving to public sector builders from engaging contractors that improperly style their workers as 'independent operators' is up to 2.33% - perhaps less. Just under half of this 'saving' is actually financed by provincial losses (EHT, WSIB and income tax). The 'gain' to the province from turning a blind eye to the improper styling of workers as 'independent operators' therefore is barely over 1% of construction costs, and probably less. Against this 'saving' must be measured the social costs of weakening occupational health and safety, watering down minimum employment standards, undermining apprenticeship training, and fostering a culture of non-compliance.

■

5. Why Construction is Different

There are several features of the construction labour market which differ either in kind or in degree from the conditions that prevail in most other labour markets. Other industries may share some of these characteristics, but few industries share all of them. Taken together, these characteristics make employment and wage determination in the construction industry distinct. This basic principle has been long recognized in labour relations. Ontario mirrors the practice of every other Canadian jurisdiction in treating construction separately from other sectors of the economy. Similarly the *Construction Lien Act* sets out a distinct system of commercial liability for construction projects.

Threat of Permanent Lay-Off:

In the construction industry, employment is tied to projects, many of which are short-term. As a result, employment relationships are often short-lived. Figure No. 12 reproduces estimates from a Statistics Canada study of the probability of permanent lay-off by industry grouping. As can be seen, the probability of permanent lay-off in the construction industry is markedly higher than in every other industry.

Figure No. 13
Probability of Permanent Lay-Off, 1978-1992 - Ontario[92]

Sector	Probability of Permanent Lay-Off
Construction	24.7%
Primary Industries	13.0%
Manufacturing	7.3%
Distribution Services	6.0%
Business Services	4.8%
Public Service	3.7%
Health, Education and Welfare	1.9%

Irregular employment is a defining reality of the construction labour market. Except when construction is booming, most non-union workers are in no position to refuse a job because its pay and benefits are substandard. While permanent lay-offs are a fact of life in most other industries, the magnitude of

[92] Statistics Canada, Analytical Studies Branch, Business and Labour Market Analysis Division, Lin, Zhengxi and Pyper, Wendy, *Job Turnover and Labour market Adjustment in Ontario form 1978 to 1992*, No. 106, Cat. No. 11F0019MPE. See Table No. 1

their importance in the construction industry is distinct. Indeed, *no other industry comes even close to construction in the probability of permanent lay-off.*

Cut-throat Competition:

In the public sector and in much of the private sector, construction contracts are awarded on the basis of low bid, provided that the low bidding contractor meets the minimum qualification standards. Price, of course, is a factor in virtually all industries. In other industries, however, product differentiation, marketing strategies, and long-time relationships attenuate the role of price competition. In construction, these factors count for much less. What is different about construction is the overwhelming priority given to low bids and the intensity of competition. While competitive pressure on wages is a factor in most industries, what is different about construction is the intensity of that pressure. *In few other industries is unattenuated price competition so intense. The construction labour market, with its short-term jobs and high rate of permanent lay-offs, channels this pressure directly onto wages and working conditions. In few other industries does cut-throat competition coincide with a labour market like the one that prevails in the construction industry.*

The impact of cut-throat competition extends not only to wages and working conditions, but also to undermining the skill pool and eroding the quality of construction products. A report of the Office of the Inspector General of the U.S. Department of Housing and Urban Development comments that: "competitive bidding frequently results in the use of less skilled workers paid below prevailing wage rates and shortcut construction methods leading to poor quality work… *this systematic cheating costs the public treasury hundreds of millions of dollars, reducing workers' earnings, and driving the honest contractor out of business or underground.*"[93]

Sub-Contracting and Sub-Sub-Contracting:

Sub-contracting is pervasive in the construction industry. As one scholar noted, "while sub-contracting is a common feature of many industries, the scale on which it is used in the construction sector is unusual."[94] Indeed, it is a common practice in some trades for a trade contractor (who is sub-contracted by a general contractor) to further sub-contract work to a worker who subsequently engages other workers to work alongside him or her on the job. Mayhew and Quinlan have found in both Australia and the UK a strong relationship between sub-contracting and increased rates of occupational injury in residential construction.[95] In the U.S., these findings were confirmed for the construction

[93] U.S., Department of Housing and Urban Development (HUD), Office of the Inspector General, Audit Report on Monitoring and Enforcing Labor Standards, cited by Belman, D. and P. Voos,. *Prevailing Wage Laws in Construction: The Costs to Repeal to Wisconsin*. Milwaukee, WI: Institute for Wisconsin's Future. (October, 1995) p 10 [emphasis added].

[94] Geoffrey Briscoe, *The Economics of the Construction Industry*, Batsford, (London, 1988), p 13

[95] Mayhew C. and Quinlan M., "Subcontracting and occupational health and safety in the residential building industry," *Industrial Relations Journal*, Volume 28, Number 3, September 1997, pp. 192-205(14)

industry as a whole in a study by Azari-Rad *et al*. Their study finds statistical support for the argument that 'sub-contracting increases the risk of on-site injuries by shifting risk to contractors with a higher tolerance for injuries and by creating an environment where lack of cross-contractor co-ordination increases the dangers of construction work."[96] Sub-contracting is found in many industries. *What is distinct about construction is the pervasiveness of sub-contracting and the long chains of sub-sub-contracting*. The specialization that is at the heart of the sub-contracting system may have important and positive implications for construction productivity. However, public policy cannot be blind to the dark side of the sub-contracting system.

Piece Rate Payment

Piece-rate systems of remuneration are prevalent in many branches of construction, especially, but not solely, in non-union construction. Remuneration based on piece-rates is attractive to contractors for two reasons. First, piece-rates stabilize the cost between labour input and construction output, thereby reducing the contractor's risk of a cost overrun. Second, piece-rate systems reduce the need for direct supervision since payment is directly tied to effort. Piece-rate systems are also seen in some quarters as contributing to higher injury rates when observing proper safety practices is seen by workers as constraining their piece-rate earnings. In principle, piece-rates are a system for remunerating employees. In themselves, piece-rates do not change a worker's status from 'employee' to 'independent operator'. In practice, however, in the construction industry, piece-rate systems facilitate the styling of workers as 'independent operators'. At one time, piece-rates were the predominant method of remunerating production workers in the manufacturing sector and primary industries. Piece-rates were largely replaced by hourly wage systems and more sophisticated incentive systems. *Construction is one of the few industries where piece-rates are still widespread*.[97]

'Independent Operators'

'Independent operators' are workers who are nominally self-employed and who do *not* employ other workers to work alongside them. Some are incorporated, but most are not. As noted elsewhere in this study, by styling workers as 'independent operators', a contactor avoids EI, CPP and WSIB costs, as well as Employer Health Tax (if it applies) and also statutory requirements for vacation and holiday pay. The value of these 'savings' amounts to approximately 22% of labour costs (Figure No. 12, page 56). For the regulatory authorities, determining that a worker was an employee rather than an 'independent operator' requires considering a range of factors. The pervasiveness of sub-contracting and piece rate systems of payment provide both support and cover for the practice of styling workers as 'independent operators'. As well, in the construction industry, the process of determining whether a worker is an employee or an 'independent operator can be complex and time-consuming for the

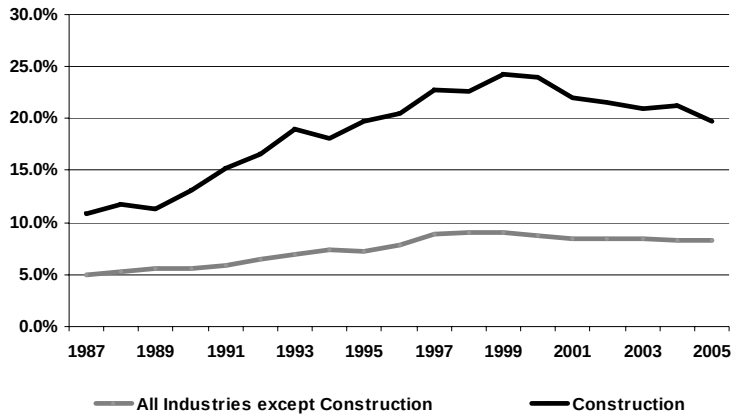
[96] Azari-Rad, H. Philips, P. and Thompson-Dawson, W., "Building Health And Safety into Employment Relationships in the Construction Industry", Industrial Relations Research Association, *Proceedings of the 55th Annual Meeting* (2003)

[97] Milkovich, G.T. and Stevens, J., *Back to the Future: A Century of Compensation*, Centre for Advanced Human Resource Studies, Cornell University, Working Paper 99-08 (1999)

regulatory authorities. Not surprisingly, in these circumstances, the prospect of a 22% savings in labour costs has proven irresistible to many contractors. Labour cost savings on this scale would be attractive in most circumstances. *What is distinctive about construction is the relative ease with which the industry accommodates the practice of styling workers as 'independent operators.'* This is evident in the significantly more rapid growth of 'independent operators' in construction, compared to the economy as a whole.

From 1987 to 2005, the share of independent operators in the labour force outside of construction increased only slightly - from 5% to 8.3%. *In construction, however, the 'independent operator' share increased from 10.8% to 19.8%.* Moreover, the share was as high as 24.2% before demand conditions improved and the ability of contractors to impose 'independent operator' status was diminished.

Figure No. 14
Share of Independent Operators in the Labour Force



There should be no illusions about 'independent operators' in the construction industry. W*hile a minority of workers may prefer this status, in the main, the growth of 'independent operators' reflects the preference of contactors, not the preference of workers.*

Conditions Required for Investment in Skills

For the most part, the products of the construction industry are customized. Many construction processes can be mechanized, but there are limits. For this reason, the construction industry requires a large pool of skilled labour. Maintaining this pool of skilled labour requires the right incentives for both employers and workers to invest in developing these skills. When many employment relationships are essentially casual, *i.e.*, short-term, neither employers nor workers have a strong incentive to invest in skills. Employers are rightly afraid of losing their investment when the worker is laid off and takes employment with a competitor. For workers, the prospect of coming unemployment discourages acquiring skills at the expense of current income. Left to its own devices, therefore, the construction labour market will tend towards an under-supply of skilled labour and an over-supply of unskilled (or semi-skilled) labour. To correct this perverse bias and create conditions that are conducive to apprenticeship training requires that employment in the construction labour market be regularized. If

the construction industry is to overcome its inherent tendency to under-invest in training then employers must be put on a level playing field when it comes to investing in training and benefiting from such investments. Unions provide this institutional framework. They are an essential counter-balance to incentives that would otherwise lead to an under-investment in skills. At the same time, union policies also require workers to enter a trade through the apprenticeship channel. In this way, workers are also forced to invest in training. *The central role of unions in creating conditions that promote investment in skills development by both employers and workers is unique to the construction industry*. In most other industries, longer tenures support at least some investment by both employers and workers in developing skills. *The intrinsic bias to under-investment in skills arises from distinct characteristics of the construction industry and the construction labour market*.

Summary – Construction is Different:

In this chapter, we have looked at five features of the construction labour market which are distinct either in kind or in degree:

1. the threat of permanent lay-off is substantially higher in construction. Indeed, no other industry comes even close to construction in the probability of permanent lay-off;

2. unattenuated price competition is significantly more intense in construction than in other industries. In few other industries does cut-throat competition coincide with a labour market like the one that prevails in the construction industry;

3. sub-contracting, including long-chains of sub-sub-contracting are pervasive in the construction industry. Sub-contracting is strongly associated with higher rates of occupational injury;

4. the construction industry is redolent with workers who have been styled by contractors as 'independent operators' so as to reduce contractors' labour costs and escape other obligations associated with a traditional employment relationship;

5. the distinct features of the construction labour market and the construction industry lead to an intrinsic bias to under-invest in skills. In the absence of union (or government) policies to counter this bias, the construction labour market under-supplies skilled labour and over-supplies unskilled (or semi-skilled) labour.

It is the sum of these characteristics of the construction labour market that make construction different. For this reason, the construction industry needs policies that are tailored to the industry and reflect its distinct features. Fair Wage Policies are a case in point. *Textbook theories of labour market efficiency and policy advice to 'leave it to the market' miss the point that the construction labour market operates*

differently. *Without a strong policy and institutional framework, the outcomes in terms of labour standards, occupational safety, productivity and quality are likely to be unsatisfactory*.

■

6. The Case for Fair Wage Policy

This chapter provides a synopsis of the arguments in support of Fair Wage Policies.

1. Compared to most other industries, construction is more vulnerable to destructive forms of competition. Cut-throat competition undermines employment conditions, erodes occupational safety standards, weakens industry investment in skills training, and promotes evasion of legal obligations. The low bid policies that are widely adhered to in the public sector reinforce the tendency to cut-throat competition. *Fair Wage Policies are a necessary counter-balance to the tendency of the construction industry to fall into cut-throat competition.*

2. By putting limits on competition based on cheap labour, Fair Wage Policies pressure contractors to adopt more efficient construction methods and to strengthen project management. *By promoting positive competition rather than cut-throat competition, Fair Wage Policies support productivity and innovation in the construction industry.*

3. By increasing wage rates, *Fair Wage Policies encourage the use of more skilled and better qualified labour and thereby support industry and worker investments in skills training and apprenticeship.* A more skilled work force is one of the pillars of a more productive and innovative industry. A skilled work force is essential to a quality construction product.

4. In the construction industry, some contractors invest in apprenticeship and skills development, while others do not. Without Fair Wage Policies, contractors that do not invest in apprenticeship and skills development have a cost advantage over contractors that do. *It is patently unreasonable for governments, on the one hand, to support and advocate the expansion of the apprenticeship system and more industry investment in skills development and then, on the other hand, give a competitive advantage on public sector work to employers who neither support the apprenticeship system nor invest in skills development.*

5. Decent working conditions and adherence to high standards for occupational safety go hand-in-hand. *Conversely, contractors that compete on the basis of cheap labour are notorious for weaker health and safety standards and accepting greater risks of occupational injury.* U.S. evidence shows a significant increase in occupational injuries in states that repealed their Prevailing Wage laws.

6. *Contractors that compete on the basis of cheap labour are also likely to cut corners on quality thereby increasing long-run costs.*

7. *Contractors that style their workers as so called 'independent operators' enjoy an unfair competitive advantage over legitimate contractors of an amount equal to approximately 22% of labour costs*. By tolerating this practice, public sector owner-developers penalize legitimate contactors and encourage non-compliance and evasion. *Fair Wage Policies, if properly designed, curtail underground practices and thereby create a level playing field for competitive bidding*.

8. *Fair Wage Policies are incorrectly criticized for radically inflating costs. The evidence does not support his claim. Careful studies of construction costs do not find a significant impact*. The largest study, which examined construction costs for elementary and secondary schools in British Columbia, before and after the introduction of a Fair Wage Policy, found a cost impact of no more than 2% and even this finding was described by the authors as not meeting the statistical test of reliability. It should also be kept in mind that two-thirds or more of the 'savings' from using of so-called 'independent operators' are actually financed by losses to government and other public agencies, such as the WSIB.

9. Fair Wage Policies are incorrectly characterized as union preference policies. *In virtually every trade there are legitimate non-union contractors who pay wages that equal or exceed those typically set out in Fair Wage Schedules*. Fair Wage Policies limit competition only from those non-union contractors that base their competitive advantage on cheap wages, 'independent operators' and lower safety standards.

10. At the local level, Fair Wage Policies protect local employment and thereby increase the benefits to the local economy from construction that is financed by local funds.

■

7. A Modern Fair Wage Policy

In the course of preparing this report, we had the opportunity to meet with a range of individuals in government and in the construction industry. This chapter begins by summarizing what we heard. The chapter concludes by considering some of the issues raised and suggesting an outline for a modern Fair Wage Policy.

What We Heard

Apprenticeship

- A link between Fair Wage Policy and apprenticeship would have strong resonance.
- Key policy themes for the Ontario government are strengthening apprenticeship and improving health and safety performance. Fair Wage Policy should be tied to these goals.
- Construction appears to support about 40% of apprenticeships. The construction industry is critical to the government's apprenticeship goals.
- C of Q requirements and apprenticeship registration are easy to enforce. An inspector just asks to see the certification which the worker is obliged to carry and produce on request.
- A policy that required construction workers on government projects to hold a Certificate of Qualification or apprenticeship registration in their trade might have roughly the same effect as a Fair Wage Policy.
- It is important for labour and management to move jointly on the Fair Wage issue and on requirements for a C of Q or apprenticeship requirements.
- In construction, it is the union sector that trains apprentices. The non-union sector is not equipped to provide good training – it lacks the training centres and lacks the committees to oversee apprenticeships.
- Using Fair Wage Policy to drive more apprenticeships would be very attractive. This would be especially attractive in the College sector.
- The union sector is losing market share. That is the key problem. It is undermining health and safety and undermining apprenticeship.
- Tying apprenticeship requirements to Fair Wage Policy could lead some contractors to use 1st and 2nd year apprentices in place of labourers, but not move those apprentices through to completion. Increasing registrations does not necessarily mean increasing completions.

Scope:

- The use of public-private partnerships (P3s) is likely to increase. One effect of this is that the government would no longer be the owner-developer, but only the lessee. This might move such projects outside the ambit of traditional Fair Wage Policy in Ontario.
- Under Bill 31 municipalities and school boards that were bound to union agreements have a procedure for getting released. This may have created a new argument for Fair Wage Policies that previously did not apply.

Productivity and Innovation:

- Promoting productivity through innovation is an important goal of government policy across all industries, including construction. This is especially important on large civil projects. If Fair Wage Policy could be tied to the innovation agenda, it would be helpful.
- A key cost issue in Ontario is the cost of jurisdiction disputes – this affects scheduling time and overall costs. This is in sharp contrast to the union sector in the U.S. In the U.S., the trades know where the jurisdiction lines are and they respect them – hence fewer disputes. In Ontario, the trades are constantly infringing on one another's jurisdictions thereby triggering disputes. The trade lines are the same in Canada and the U.S. The difference is the tendency in Canada for a trade to try to cross those lines and gain jurisdiction at the expense of another union. Fixing the JD problem should be a major priority for the unionized sector.
- Productivity is not a union/non-union issue – it is contractor specific.
- Inefficient construction is a serious problem, whether it is caused by poor design, lack of standardization, or inefficient construction methods.
- There are significant competitive issues in the unionized sector that the sector may not be dealing with. Fair Wage policy won't fix competitiveness problems since most of the non-union employers that get public sector work are probably already paying what a Fair Wage policy would prescribe. Technologies, such as pre-fabrication, are driving something different in terms of institutional arrangements. The union sector has not responded. You cannot look at Fair Wage Policy as the only competitive issue in the public sector market. This is too narrow a vision of the competitive challenge. Fair Wage Policy is only one of a number of factors that need to be examined.

Underground Economy:

- The underground economy is a matter of real concern. Several branches of government are wrestling with strategies to deal with underground practices.
- There may be other ways of achieving legal compliance without using Fair Wages. For example, 'named insured' for WSIB coverage would also contribute to curtailing the underground economy.
- In the U.S., compliance with Davis-Bacon is the basis for contractor registration and documentation of pay.
- Privacy regulations might restrict the type of reporting that could be required.

- Most general contractors would not know what proportion of the work force engaged by trade contractors is independent operators.

Fiscal Environment and Cost Issues:

- The government has ambitious goals for renewal of public sector infrastructure. However, the capital budget is extremely tight. This will encourage resistance to measures that might increase costs, unless there are other offsetting advantages.
- Looking only at up-front construction costs is misleading. The focus needs to be on life cycle costs which take account of maintenance and repair. A project that is built to high standards may be more costly up front, but more economical in the long if maintenance costs are reduced.
- It is important for government to see the revenues lost, as a result of the underground economy, alongside the apparent cost savings.
- The credit rating agencies take account of unfunded liabilities at the WSIB, as if it were part of the government.
- The commitment to a balanced budget prior to the next election is key. This makes it difficult to move forward on any policy that has significant net cost implications.
- Given limited capital funds, in the institutional segment of the market place, cost is the driver. Fair Wage is a cost inflator. Ergo, there is no appetite for Fair Wage Policy.
- The Provincial Auditor strongly advocates a low bid rule.
- In the provincial government's real estate portfolio, renovations and repairs probably account for about 50%. The rest is new construction.
- There is a need to take into account the different fiscal situation of large municipalities and small municipalities. Many small municipalities have a more limited tax base which is much more heavily reliant on homeowners and/or agricultural properties.
- Current procurement policies are dated. They need updating. Fair Wage review could be part of this process.

General Policy Considerations:

- The views of the major general contractors would be an important factor.
- The costs of enforcement and administration are increased significantly if there is a low threshold or no threshold to application of a Fair Wage Policy. Contracts under $100,000 involve relatively little labour, but the costs of administering and enforcing Fair Wage requirements are similar to a contract of $1.0 million. Threshold exemptions can make a Fair Wage Policy much more economical to administer without significantly detracting from its impact.
- On site enforcement can be very effective. Look at the enforcement of the *Fairness is a Two-Way Street Act*.

- We generally do not have detailed information on the share of labour, materials and soft costs in total costs, unless this information is specifically required in the RFP and is a criteria for awarding the tender. Consequently, we would have difficulty estimating the effect of a Fair Wage Policy.
- In the 1995 review, the various agencies were unable to provide detailed estimates of the likely cost impact. That may not have changed.
- When Fair Wage Schedules are adjusted this can send an unintended and potentially prejudicial message to unions with whom the government is bargaining.
- For most of the large general contractors, Fair Wage Policy is not an issue. They are bound to collective agreements for some of the trades and use trade contractors that are either bound to union agreements or would pay wages at least on par with what would be in a Fair Wage schedule.

▪

"What we heard" can be summarized in terms of three key themes. The first is the importance of linking Fair Wage Policy to other policy objectives, specifically to (1) strengthening apprenticeship and skills development, (2) improving occupational safety performance, and (3) curtailing underground economic practices. The second key theme is the importance of dealing with productivity and competitiveness issues. And lastly, the third is the need to recognize the fiscal environment within which governments and public sector bodies must operate.

▪

A Modern Fair Wage Policy – Eight Principles

While the historic goals of Fair Wage Policy continue to be relevant, we must also recognize that in construction, economic conditions have changed since Fair Wage Policies were introduced towards the end of the 19th century. The problem of "sweated labour" is no longer central, though instances of unfair wages and working conditions can still be found. *Policy goals today focus on skills training, occupational safety, productivity and competitiveness, and compliance with legal requirements. To be relevant today, Fair Wage Policy must contribute to these goals as well as fulfill its historic purpose.*

1. A Strong Link to Apprenticeship and Skills Development

The U.S. evidence shows that Prevailing Wage laws provide important, but indirect, support to the apprenticeship system. British Columbia's *Skills Development and Fair Wage Act* formalized that link and made it explicit by requiring that all workers on provincially supported construction either hold a trade qualification or be registered as apprentices. In Ontario, such a policy could make a useful contribution to achieving the government's apprenticeship objectives. The government is committed to achieving 26,000 apprenticeship registrations by the end of 2007-2008. At the end of 2005-2006, registrations will probably be around 21,000. Moving to 26,000 will be a challenge. It is therefore

useful to ask how many additional apprenticeships could be supported by public sector construction if there were a policy which required the use of certified journeypersons and registered apprentices.

In Ontario, public sector spending on *building* construction is projected to be in the range of $1.7 billion annually over the next three years, based on the CanaData forecast.[98] In round terms, this spending will employ approximately 10,000 workers, based on a 35% labour share of total costs. If trade qualification or apprenticeship registration were required, public sector building construction would support approximately 1,500 apprentices. About 40% of these would be in the compulsory trades. At present, non-union contractors appear to have the larger share of this work. Our interviews with general contractors and with officials supported the view that non-union contractors have a lower propensity to provide apprenticeship training, especially in the voluntary trades. As well, their use of independent operators is incompatible with apprenticeship since apprenticeship requires an employment relationship. At present we venture that public sector building construction is supporting around 450-500 of the potential 600 apprentices in the compulsory trades. In the voluntary trades, the non-union sector is far more likely to employ uncertified workers in place of journeypersons and helpers in place of apprentices. We venture that at present public sector building construction supports only around 200-300 of the potential 900 apprentices in the voluntary trades. *Adopting a requirement to use only certified journeypersons and registered apprentices on public sector building construction would potentially add approximately 700 – 800 apprenticeships. This would be a material contribution to achieving the government's apprenticeship goals. It would also underscore the government's commitment to increase the number of apprenticeships in Ontario.*

Civil construction employs a much greater proportion of equipment operators than building construction. Consequently, it is more difficult to estimate the number of apprenticeships that could be supported by civil construction. As well, not all civil construction is undertaken by the public sector. Projected spending on civil construction is several times the amount projected for public sector spending on buildings. There are too many unknowns to venture an estimate on the number of additional apprentices that might be supported by public spending on civil construction. However, the impact would be material.

The unionized sector directly supports skills development through substantial investments in training. These investments, which are commonly channelled through training trust funds, represent approximately 1% of the union wage package. It is surely ironic that non-union contractors enjoy a competitive advantage on public sector jobs by not making investments in training. Public tendering policy is out of sync with broader policy objectives in the area of skills training.

We conclude, therefore, that a Modern Fair Wage Policy should explicitly promote apprenticeship by requiring that workers on provincially supported construction projects either hold a trade certification or be registered as apprentices. In civil construction, where there is a large pool of workers who do not hold trade certifications, the focus should be on establishing apprenticeships for new entrants rather than requiring incumbent workers to obtain qualifications.

[98] *CanaData Annual Construction Forecast, 2006-2008*

2. An Explicit Link to Workplace Health and Safety

The U.S. literature pointed to a link between Prevailing Wage laws and occupational health and safety performance. Low bid policies, it was suggested, encourage work to be awarded to contractors who may have a higher tolerance for injury risks. The limited Ontario evidence showed a significant difference in the health and safety performance between union and non-union contractors in the electrical and mechanical trades.

In many cases, the Ontario government requires documentation of a health and safety policy as a condition of contractor qualification. This is an important and commendable use of tendering policy to promote broader public objectives. The policy should be extended to all provincially supported construction work.

3. Curtailing Underground Practices

In public sector construction, the most widespread and economically destructive underground practice is styling workers as 'independent operators' so as to escape the costs of EI, CPP, WSIB, and the Employer Health Tax and also to avoid the costs of vacation and statutory pay. On average these 'savings' are equal to about 22% of straight wage costs. In addition, government also loses revenues when workers who are styled as 'independent operators' use that designation to under-report their income for tax purposes. We noted earlier that the estimated 'savings' to public sector builders from the use of 'independent operators' was up to 2% of total construction costs, and perhaps less if 'savings' were not passed on. About one third of these 'savings' are actually financed by the province in the form of lost WSIB and EHT receipts – and more if income tax losses are factored in.

The present system rewards the evaders and punishes those employers that are compliant by making them uncompetitive in a system that is geared to acceptance of the lowest bid. Ontario government officials and general contractors both acknowledged that they do not have data on the incidence of 'independent operators'.

This problem is uniquely Canadian. As noted in Chapter Two, in the U.S., under the Davis-Bacon Act, 'independent operators' are covered by prevailing wage requirements. In the U.S., a contractor must pay a worker the scheduled hourly rate regardless of whether the worker is an employee, a sub-contractor, a wage worker or a piece-rate worker. And the employer must document wage payments on a WH347 form. The U.S. has been using this system for over 70 years. The extension of coverage to 'independent operators' is achieved by statutory language that explicitly directs coverage to be applied beyond the common law definition of an employee.

The solution to the 'Canadian problem' would appear to be self-evident: adopt the Davis-Bacon formulation of coverage (i.e., explicitly extend coverage beyond 'employees') and adopt the Davis-Bacon requirements for reporting remuneration payment. Beyond this, the Ontario government should revoke the 'independent operator' exemption from mandatory WSIB coverage, at least on work that is financed, in whole or in part, by the provincial government. As well, a Modern Fair Wage Policy should require statutorily mandated vacation and holiday pay to be added to remuneration if the

benefits are not otherwise provided. Taken together, these measures would go some considerable distance to creating a level playing field in public sector tendering.

4. Addressing Productivity and Competitiveness

Estimates of market share are difficult to formulate. However, there is a widely held perception that unionized contractors have lost ground in the public sector market place. The growth of underground practices – especially the use of 'independent operators' - has certainly contributed to this loss of market share. However, there are other factors that have also come into play. In the U.S. there is evidence that the union productivity advantage over non-union contractors has narrowed. We do not know if this holds true in Canada. We do know, however, that non-union contractors are doing work today – to the apparent satisfaction of public sector owners – that they did not do in the past. *There are productivity and competitiveness challenges in the union sector than cannot be avoided. It would be both unwise and unreasonable to expect Fair Wage Policy to substitute for dealing with productivity and competitiveness challenges*.

It is beyond the scope of this study to explore in any detail the nature of the union sector's productivity and competitiveness challenges. However, it is important that the union sector deal with these challenges. In light of the emphasis that both senior levels of government place on productivity and innovation, initiatives from the construction industry to identify and tackle productivity challenges would be welcome. As a major purchaser of construction, the public sector has a strong interest in working with the industry to improve productivity. *Proposals for a Modern Fair Wage Policy will receive a much more sympathetic hearing if they are accompanied by proposals to work with governments to identify and tackle productivity challenges in the industry*.

5. A Broad Scope

Ontario's *Government Contracts Hours and Wages Act* of 1936 mirrored its federal counterpart (*Fair Wages and Hours of Labour Act)* in applying the Fair Wage obligation not only to government work, but also to work that was supported by loans, grants and subsidies. As described in Chapter Two, current Fair Wage Policy in Ontario is based on order-in-council and applies only to direct government work and to work undertaken by certain listed provincial agencies. This is not the case with federal policy which still has a broad application, pursuant to the *Fair Wages and Hours of Labour Act*. Developments have overtaken Ontario's more narrow approach. The introduction of various types of public-private partnerships have moved some types of work outside of the ambit of existing Fair Wage Policy. *Ontario should follow federal practice in applying its Fair Wage Policy broadly. This would also be consistent with using provincial spending on construction to have the maximum impact on apprenticeship training and occupational health and safety*.

6. A Realistic Conception of Wages

Both current federal Fair Wage Policy and the now dated provincial policy tie their Fair Wage Schedules to straight wages only. By doing so, both levels of government adopt an interpretation of wages that is both unrealistic and at odds with the definitions in their respective Employment Standards statutes. There is no valid reason for distinguishing between a dollar paid out in wages and a dollar paid into a benefits fund or a pension fund. Benefits are simply indirect compensation. Pensions are deferred wages. To the employer who pays the money, wages and benefits affect labour costs in the same way. Comparing only straight wages implies that employers who provide benefits should be put at a competitive disadvantage for doing so. If the goal of public policy were to discourage benefit plans, this would make sense. But the goal of public policy has always been the opposite – to encourage workplace benefit plans so as to relieve the burden on publicly provided plans. Why then, should prevailing wage surveys take account only of straight wages? As was noted earlier, the 1995 Ontario Fair Wage Schedule was linked to union wages (i.e., straight wages) in urban areas. The result was a difference between the Fair Wage Schedule and the negotiated union rate equal to the non-statutory component of the benefit package. On average, this was about 18%. The union sector was being penalized by the comparison for directing a significant portion of its wage package to benefits and also to functions such as training. There is no justification in public policy goals for making this distinction between straight wages and the non-wage components of monetary compensation.

Ontario should follow the practice in the City Toronto and in Thunder Bay of linking the Fair Wage Schedule to the wage package, rather than to straight wages. (In Toronto, as noted, for most trades, the Fair Wage Schedule is 93-95% of the current wage package. In Thunder Bay, there is a straight tie-in.)

7. Implementing the Prevailing Wage Principle

The federal government's decision to mandate Statistics Canada to conduct the *National Construction Wage Survey* has introduced methodological rigour and objectivity into the process of determining prevailing wages. The eight economic regions[99] allow for regional differences in wages without the artifice of the urban/non-urban distinction that informed the 1995 provincial Fair Wage Schedule. (It should be noted that by tracking negotiated rates, the 1995 provincial schedule implicitly recognized regional differences.) There are, however, three drawbacks to the *National Construction Wage Survey*.

[99] The eight economic regions and principal population centres are:

- North (Timmins-Sudbury-North Bay-Sault Ste. Marie-Thunder Bay)
- Mid-East (Kingston-Muskoka)
- East (Ottawa)
- Toronto
- Central (Kitchener-Waterloo-Barrie)
- South Central (Hamilton-Niagara Peninsula)
- West (London-Stratford-Bruce Peninsula)
- South (Windsor-Sarnia)

The first drawback, as noted, is that pursuant to federal policy, the survey tracks only straight wages and not benefits (*i.e.*, the 'wage package'.) This is inconsistent with industry practice. It also gives a distorted picture of actual compensation levels which is especially detrimental to unionized contractors.

The second drawback of the *National Construction Wage Survey* is the five-year cycle. This cycle reflects funding constraints. The problems arising from the drawn-out cycle are compounded by the absence of any mechanism for adjusting the schedules between surveys.

The third drawback is the absence of any rule of thumb for deferring to the negotiated rate as the prevailing rate. As described earlier, under the Davis-Bacon Act, if the union rate represents 50% of the data observations, then the union rate is deemed the prevailing rate. (The 50% rule, which dates from the 1980s, replaced an earlier 30% rule.) In determining a prevailing wage, the frequency of a particular wage (*i.e.*, its 'mode', in statistical terminology) is as important as the average.

A natural first step for Ontario is to co-operate with the federal government in supporting Statistics Canada's National Construction Wage Survey. This would have significant advantages for the Ontario government. First, Statistics Canada has a well deserved and internationally recognized reputation for methodological rigour. Reliance on the *National Construction Wage Survey* would introduce an important objectivity into the process of determining the prevailing wage. And second, Ontario's co-operation would be cost effective. By combining their efforts, the two levels of government would avoid duplication. *Ontario's participation, however, should be conditional on compressing the survey cycle and tracking the total wage package in addition to straight wages*. It would be up to the province to establish a rule for determining when the negotiated wage package should be deemed the prevailing rate. *While conservative, the Davis-Bacon 50% rule may be appropriate, at least during the initial years of re-introducing Fair Wage Policy and extending it to all provincially funded construction.*

8. Enforcement

In Canada, enforcement of Fair Wage Policies is complaint based. Ontario investigates complaints through its Employment Standards Branch. In light of how dated Ontario's Fair Wage Schedule is, enforcement considerations are largely redundant. However, a more current schedule would raise the question of the adequacy of complaint-based enforcement. In the U.S., under the *Davis-Bacon Act*, enforcement is largely complaint-based. However, departments of the federal government, covered agencies and recipients of federal funds (typically state bodies) are subject to audit. We were told by a general contractor that enforcement in the U.S. is taken seriously and that this discourages non-compliance. Contractors that repeatedly violate *Davis-Bacon* requirements are disqualified from bidding on government work. The City of Toronto screens employers for compliance and also investigates complaints, which may be lodged by a worker, a union or another contractor. The City also promotes on-site awareness of Fair Wage entitlements.

An expanded Fair Wage Policy that covered all provincially funded work should be accompanied by policies that communicate to workers their entitlements under the policy and by occasional audits. These would be in addition to the current investigation of complaints. Audits could be undertaken in conjunction with WSIB enforcement.

Conclusion

Fair Wage Policies originated in the late 19th and early 20th century. Conditions have changed. The acute unfairness which Fair Wage Policies were intended to remedy are no longer as evident. While conditions have changed, the need for Fair Wage Policies has not gone away. The construction industry is different from most other industries. Without a sound policy framework, the industry easily tips over into cut-throat competition. The result is to undermine working conditions, erode occupational safety standards, weaken industry investment in apprenticeship and skills training, and foster a culture of evasion and non-compliance. *The challenges are different from those faced by policy makers in the late 19th and early 20th century, but the need for special policies for the construction industry has not changed. A Modern Fair Wage Policy has an important contribution to make to promoting innovation and productivity, supporting industry investment in training, strengthening occupational safety, and curtailing underground practices.*

■

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Appendix B - Opinion Letter

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Opinion re Applicability of Davis-Bacon Act to Independent Contactors

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March 23, 2006

TO: John O'Grady
Prism Economics and Analysis

FROM: Terry R. Yellig

RE: Request by Prism Economics and Analysis for a Legal Opinion Concerning Application of the Davis-Bacon Act to "Independent Operators."

This is in response to your request that I provide an opinion concerning several questions relating to application of the Davis-Bacon Act, 40 U.S.C. § 3141 *et seq.* (formerly 40 U.S.C. § 276a *et seq.*), to workers characterized as "independent operators." Your memorandum explained that many contractors in Canada characterize their workers as "independent operators" in order to avoid the obligations associated with being an employer such as payroll taxes, minimum employment standards, and application of the Canadian Fair Wage Policies. Your memorandum acknowledges, however, that there are also legitimate "independent operators." Specifically, you asked whether the Department of Labor applies the Davis-Bacon Act to "independent operators," which are most commonly referred to in the United States as "independent contractors."

As discussed in detail below, the U.S. Department of Labor has held on several occasions over the years that the Davis-Bacon Act applies to workers who perform labor on construction projects covered by the Act regardless of their contractual relationship with a contractor or subcontractor. The U.S. Congress enacted the Davis-Bacon Act in 1931, which requires that workers on government construction projects be paid wages in accordance with prevailing wage rates determined by the Secretary of Labor. Prevailing wage rates are the prevalent rates for similar work in the same locality. The Act requires that contracts covering government-funded work "shall contain a stipulation that the contractor or his subcontractor shall pay mechanics and laborers employed directly upon the site of the work [the prevailing wage]." *Building & Constr. Trades Dept., AFL-CIO v. U.S. Department of Labor*, 932 F.2d 985, 987 (D.C. Cir. 1991). The United States Supreme Court explained the purpose of the Davis-Bacon Act: "The language of the Act and its legislative history plainly show that it was not enacted to benefit contractors, but rather to protect their employees from substandard earnings by fixing a floor under wages on Government projects." *United States v. Binghamton Const. Co.*, 347 U.S. 171, 176-177, 98 L. Ed. 594, 74 S. Ct. 438 (1954).

I. U.S. Courts Typically Apply a Common-Law Test for the Relationship of Master and Servant to Determine Whether a Worker is an "Employee" Under Protective Federal Labor Standards Laws Unless the Statute Contains Language that Reflects Congressional Intention to Stretch the Meaning of "Employee" to Cover Workers Who Might Not Qualify as Such Under a Strict Application of Traditional Agency Law Principles.

You indicated in your February 27, 2006 memorandum that in Canada many contractors style their workers as "independent operators" to avoid the obligations associated with being an employer. The same phenomenon occurs in the United States with great regularity. As a result, U.S. courts have addressed on several occasions the meaning of the term "employee" in a federal statute that does not helpfully define it.

The U.S. Supreme Court held in *Community for Creative Non-Violence v. Reid*, 490 U.S. 730, 104 L. Ed. 2d 811, 109 S. Ct. 2166 (1989), that it will apply a common-law test for determining who qualifies as an "employee," which was summarized as follows:

> In determining whether a hired party is an employee under the general common law of agency, we consider the hiring party's right to control the manner and means by which the product is accomplished. Among the other factors relevant to this inquiry are the skill required; the source of the instrumentalities and tools; the location of the work; the duration of the relationship between the parties; whether the hiring party has the right to assign additional projects to the hired party; the extent of the hired party's discretion over when and how long to work; the method of payment; the hired party's role in hiring and paying assistants; whether the work is part of the regular business of the hiring party; whether the hiring party is in business; the provision of employee benefits; and the tax treatment of the hired party.

490 U.S. at 751-752 (footnotes omitted). *Cf. Restatement (Second) of Agency* § 220(2) (1958) (listing nonexhaustive criteria for identifying master-servant relationship); *Rev. Rul. 87-41*, 1987-1 Cum. Bull. 296, 298-299 (setting forth 20 factors as guides in determining whether an individual qualifies as a common-law "employee" in various tax law contexts).[1/]

[1/] *Community for Creative Non-Violence v. Reid* is a case in which a sculptor and a nonprofit group each claimed copyright ownership in a statue the group had commissioned from the artist. The dispute ultimately turned on whether, by the terms of § 101 of the Copyright Act of 1976, 17 U. S. C. § 101, the statue had been "prepared by an employee within the scope of his or her employment." Because the Copyright Act nowhere defined the term "employee," the Supreme Court unanimously applied the "well established" principle that:

More recently, in *Nationwide Mutual Insurance Co. v. Darden*, 503 U.S. 318, 112 s. Ct. 1344, 117 L. Ed. 2d 581 (1992), the Court reversed a decision by the U.S. Court of Appeals for the Fourth Circuit, *Nationwide Mutual Insurance Co. v. Darden,* 796 F.2d 701 (4th Cir. 1986), which vacated the district court's grant of summary judgment to petitioner insurance company on respondent insurance agent's claim for benefits under the Employee Retirement Income Security Act of 1974 ("ERISA"), because the appellate court failed to apply the common-law definition of an "employee." Instead, the appellate court held that the respondent insurance agent had a reasonable expectation of receiving retirement benefits from the petitioner insurance company, which rendered him an "employee" within the meaning of that term in ERISA.

On appeal, the Supreme Court reversed, holding that the proper test of employee status under ERISA is the master-servant relationship as defined by common-law agency doctrine. The Court said that, because Congress had not specified any other test, the appellate court should have presumed that Congress intended the traditional definition. Consequently, the Court remanded for a determination of whether the respondent agent was an "employee" under the common-law agency test.

The appellate court concluded in *Nationwide Mutual Insurance Co.* that the common-law test for the relationship of master and servant was not applicable because of the Supreme Court's earlier holdings in *NLRB v. Hearst Publications*, 322 U.S. 111, 120-29, 88 L. Ed. 1170, 64 S. Ct. 851 (1944) (defining "employee" for the purposes of the National Labor Relations Act) and *United States v. Silk*, 331 U.S. 704, 713, 91 L. Ed. 1757, 67 S. Ct. 1463 (1947) (defining "employee" for the purposes of the Social Security Act);. In both cases, the Court rejected the argument that it should interpret the term "employee" in the National Labor Relations Act and the Social Security Act, respectively, in accordance with the common-law standard. Instead, in each case, the Court read "employee," which neither statute helpfully defined, to imply something broader than the common-law definition. The Court pointed out that the common-law

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> "where Congress uses terms that have accumulated settled meaning under . . . the common law, a court must infer, unless the statute otherwise dictates, that Congress means to incorporate the established meaning of these terms." *NLRB v. Amax Coal Co.*, 453 U.S. 322, 329 (1981); see also *Perrin v. United States*, 444 U.S. 37, 42 (1979). In the past, when Congress has used the term 'employee' without defining it, we have concluded that Congress intended to describe the conventional master-servant relationship as understood by common-law agency doctrine. See, *e. g., Kelley v. Southern Pacific Co.*, 419 U.S. 318, 322-323, 42 L. Ed. 2d 498, 95 S. Ct. 472 (1974); *Baker v. Texas & Pacific R. Co.*, 359 U.S. 227, 228, 3 L. Ed. 2d 756, 79 S. Ct. 664 (1959) (*per curiam*); *Robinson v. Baltimore & Ohio R. Co.*, 237 U.S. 84, 94, 59 L. Ed. 849, 35 S. Ct. 491 (1915).

Community for Creative Non-Violence v. Reid, 490 U.S. at 739-740.

test, which emphasizes the elements of supervision and control, was developed for determining whether the extent of one person's control over the actions of another was sufficient to justify the imposition of vicarious liability on the controlling person for the wrongful acts of the person subject to control. *Silk*, 331 U.S. at 713; *Hearst*, 322 U.S. at 129.

Instead, the Court explained in *Hearst* and *Silk* that the content of the term "employee" in the context of a particular federal statute is "to be construed 'in the light of the mischief to be corrected and the end to be attained.'" *Silk*, 331 U.S. at 713 (quoting *Hearst*, 322 U.S. at 124). Thus, the Court held in interpreting statutory language so as to define the class of persons protected by the statute, a court must take as its "primary consideration" whether the inclusion of the disputed category of persons would effectuate the "declared policy and purposes" of the statute. *Silk*, 331 U.S. at 713; *Hearst*, 322 U.S. at 131-32.

However, in *Nationwide Mutual Insurance Co.* the Supreme Court characterized its earlier holdings in *Hearst* and *Silk* as "feeble precedents for unmooring the term from the common law." *Nationwide Mutual Insurance Co. v. Darden*, 503 U.S. at 325. The Court then noted:

> after each opinion [in *Hearst* and *Silk*], Congress amended the statute so construed to demonstrate that the usual common-law principles were the keys to meaning. *Id.* at 325-26 (citing *NLRB v. United Ins. Co. of America*, 390 U.S. 254, 256, 19 L. Ed. 2d 1083, 88 S. Ct. 988 (1968). ("Congressional reaction to [*Hearst*] was adverse and Congress passed an amendment . . . the obvious purpose of [which] was to have the . . . courts apply general agency principles in distinguishing between employees and independent contractors under the Act"); Social Security Act of 1948, ch. 468, § 1(a), 62 Stat. 438 (1948) (amending statute to provide that term "employee" "does not include . . . any individual who, under the *usual common-law rules* applicable in determining the employer-employee relationship, has the status of an independent contractor") (emphasis added); see also *United States v. W. M. Webb, Inc.*, 397 U.S. 179, 183-188, 25 L. Ed. 2d 207, 90 S. Ct. 850 (1970) (discussing congressional reaction to *Silk*).

Id. at 325-26.

The Court then said the presumption it adopted in *Community for Creative Non-Violence v. Reid* "that Congress means an agency law definition for 'employee' unless it clearly indicates otherwise signaled our abandonment of *Silk*'s emphasis on construing that term "'in the light of the mischief to be corrected and the end to be attained.'" *Nationwide Mutual Insurance Co. v.*

Darden, 503 U.S. at 326 (quoting *Silk*, 331 U.S. at 713, in turn quoting *Hearst*, 322 U.S. at 124).[2/]

Notwithstanding its abandonment of *Silk*'s emphasis on construing the term "employee" "in the light of the mischief to be corrected and the end to be attained" in *Nationwide Mutual Insurance Co. v. Darden*, the Court distinguished its earlier holding in *Rutherford Food Corp. v. McComb*, 331 U.S. 722, 91 L. Ed. 1772, 67 S. Ct. 1473 (1947), which adopted a broad reading of "employee" under the Fair Labor Standards Act ("FLSA"). 503 U.S. at 326. In *Rutherford Food Corp*, the Wage and Hour Administrator of the U.S. Department of Labor sought to enjoin a meat processing company from violating the FLSA by failing to keep proper records and pay certain of its employees overtime as required by Section 7 of the Act, 29 U.S.C. § 207.[3/] The meat processing company argued that the workers in question were "independent contractors," not "employees." The Supreme Court agreed with the Wage and Hour Administrator that the workers in question were "employees" covered by the FLSA.

At first blush, the Court's analysis in *Rutherford Food Corp.* appears to be the same as the analysis applied in *Silk* and *Hearst*. However, the Court was quick to distinguish the holding in *Rutherford Food Corp.* from its other two decisions. Specifically, the Court said in *Nationwide Mutual Insurance Co. v. Darden*:

> The definition of "employee" in the FLSA evidently derives from the child labor statutes, see *Rutherford Food, supra*, at 728, and, on its face, goes beyond its ERISA counterpart. While the FLSA, like ERISA, defines an "employee" to include "any individual employed by an employer," it defines the verb "employ" expansively to mean "suffer or permit to work." 52 Stat. 1060, § 3, codified at 29 U. S. C. §§ 203(e), (g). This latter definition, whose striking breadth we have previously noted, *Rutherford Food, supra*, at 728, stretches the meaning of "employee" to cover some parties who might not qualify as such under a strict

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2/ The Court rationalized its reversal of precedent as follows:

> To be sure, Congress did not, strictly speaking, "overrule" our interpretation of those statutes, since the Constitution invests the Judiciary, not the Legislature, with the final power to construe the law. But a principle of statutory construction can endure just so many legislative revisitations. . . .

Nationwide Mutual Insurance Co. v. Darden, 503 U.S. at 326.

3/ The minimum wage and overtime requirements in Section 7 of the FLSA apply to "employees" engaged in commerce or in the production of goods for commerce, or employed in an enterprise engaged in commerce or the production of goods fro commerce. 29 U.S.C. § 207.

> application of traditional agency law principles. ERISA lacks any such provision, however, and the textual asymmetry between the two statutes precludes reliance on FLSA cases when construing ERISA's concept of "employee."

503 U.S. at 326.

Thus, it appears the U.S. Supreme Court will apply the common-law agency test to determine whether a worker is an "employee" under protective federal labor standards laws unless the statute contains language that reflects Congressional intention to stretch the meaning of "employee" to cover workers who might not qualify as such under a strict application of traditional agency law principles. The language in the Davis-Bacon Act meets this standard, and the U.S. Department of Labor has interpreted it in that manner in recent years.

II. The Davis-Bacon Act Expressly Provides That It Applies Even to Workers Who Do Not Qualify as "Employees" Under the Traditional Agency Law Principles.

The Davis-Bacon Act states:

> (c) Stipulations Required in Contract. - Every contract based upon the specifications referred to in subsection (a) must contain stipulations that -
>
> > (1) the contractor or subcontractor shall pay all mechanics and laborers employed directly on the site of the work, unconditionally and at least once a week, and without subsequent deduction or rebate on any account, the full amounts accrued at time of payment, computed at wage rates not less than those stated in the advertised specifications, *regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and the laborers and mechanics*;

40 U.S.C. § 3142(c)(1) (formerly 40 U.S.C. § 276a) (emphasis added). Congress added the language relating to payment "regardless of any contractual relationship alleged" when it amended the Act in 1935 to ensure that all workers performing the duties of laborers and mechanics on covered projects receive the prevailing wages established for their classification of employment.

Evidence presented to the Senate Committee on Education and Labor in S. Report No. 332. pts 1,2 & 3 issued pursuant to Senate Resolution 223, 73d Cong., 2d Sess. (1935), resulting from the Committee's investigation of the relationship between employees and contractors on public works in 1934 prompted this amendment. Part 2 of S. Report No. 332 explained:

> It became increasingly evident as testimony was taken and facts were uncovered that employment conditions existing on Government construction work were in a deplorable state. It was disclosed that unscrupulous contractors took full advantage of the acute unemployment situation to exploit labor and to deprive workmen of the wages to which they were by law entitled. . . . Those departments of the Government which made a sincere effort to cope with the situation and compel compliance with the law were confronted with barriers which it appears can be lifted only by further legislation.

S. Report No. 332. pt. 2, 74th Cong., 1st Sess., 1-2 (1935). S. Report No. 332 further explained that a variety of alleged violations of the 1931 Davis-Bacon Act was uncovered during the Committee's hearings, including:

> Instances of the formulation of partnerships between individual workmen and the letting to such partnerships of certain portions of the work under contract, the net result of which was to pay the members of the partnerships less than the prevailing wage, and thus indirectly violate prevailing wage scales.

Id. at 2.

Thereafter, the Senate Committee issued a supplementary report that enumerated certain typical cases brought to its attention, and discussed the economic and social effects of those cases together with additional proposals, suggestions, and recommendations. S. Report No. 332, pt. 3, 74th Cong., 1st Sess., 1 (1935). Many of these cases involved underpayment of workers by classifying them as "subcontractors" even though they were invariably performing labor on the project. Accordingly, the Committee's supplementary report stated that it prepared S. 3308, a bill designed to improve enforcement of the Davis-Bacon Act known as the "Walsh amendment," which eventually became law in 1935. Aug. 30, 1935, ch. 823, § 49 Stat. 1011. A provision in section 1 of the Davis-Bacon, now codified as 40 U.S.C. § 3142(c)(1) quoted above, was among the changes set forth in the "Walsh amendment" that became law.

In short, Congress enacted the language that now appears at the end of Section 3142(c)(1) of the Davis-Bacon Act, 40 U.S.C. § 3142(c)(1), to insure "payment of the minimum rate to all persons employed as laborers and mechanics regardless of any contractual relationship alleged to exist between such persons and the contractor or subcontractor." S. Rep. No. 1155, 74th Cong., 1st Sess., 3 (1935); H. Rep. No. 1756, 74th Cong., 1st Sess., 3 (1935).

Moreover, the Department of Labor, in accordance with the authority granted to it by Congress through Reorganization Plan No. 14 of 1950, 5 U.S.C. App. at 134, has promulgated regulations designed to interpret and enforce the terms of the Davis-Bacon Act. 29 C.F.R. Part 5

(2005). Reorganization Plan No. 14 of 1950, while granting the Department of Labor the authority "to prescribe appropriate standards, regulations, and procedures," also charges the various federal agencies with overseeing compliance with the regulations when those agencies enter into contracts.

These regulations include a definition section, 29 C.F.R. § 5.2, which, *inter alia*, define an "employee" as follows:

> (o) Every person performing the duties of a laborer or mechanic in the construction, prosecution, completion, or repair of a public building or public work, or building or work financed in whole or in part by loans, grants, or guarantees from the United States is employed *regardless of any contractual relationship alleged to exist between the contractor and such person.*

29 C.F.R. § 5.2(o) (2005) (emphasis added). In addition, the Department of Labor's Davis-Bacon regulations require that certain clauses must be inserted in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work assisted in whole or in part with Federal funds. Specifically, § 5.5(a)(1) of the Secretary's Davis-Bacon regulations states, in relevant part:

> All mechanics and laborers employed or working upon the site of work will be paid unconditionally . . . the full amounts of wages and bona fide fringe benefits . . . due at time of payment. The payment shall be computed at wages not less than those in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, *regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics.*

29 C.F.R. § 5.5(a)(1) (2005) (emphasis added).

The definition of "employee" and the contract clause quoted above both implement the requirement in Section 3142(c)(1) of the Davis-Bacon Act that bars any alleged contractual relationship as a defense against the requirement of paying prevailing wages.

There is, however, one exception to the general rule that all laborers and mechanics employed on a job site covered by the Davis-Bacon Act are "employees." That exception applies to bona fide owner-operators of trucks who are "independent contractors." Section 15e16 of the DOL Wage and Hour Division's Field Operations Handbook states:

> As a matter of administrative policy, the provisions of DBRA/CWHSSA [Davis-Bacon and Related Acts/Construction Work Hours and Safety Standards Act] are not applied to bona fide owner-operators of trucks who are independent contractors. For purposed of these Acts, the certified payrolls including the names of such owner-operators need not show hours workers nor rates allegedly paid, but only the notation "Owner-operator." This position does not pertain to owner-operators of other equipment such as a (sic) bulldozers, scrapers, backhoes, cranes, drilling rigs, welding machines, and the like. Moreover, employees hired by owner-operators are subject to DBRA in the usual manner.

Presumably, whether an owner-operator of a truck is an "independent contractor" excepted from Davis-Bacon coverage would be determined by applying the common-law agency test in accordance with *Community for Creative Non-Violence v. Reid* and *Nationwide Mutual Insurance Co. v. Darden*. Other than this exception recognized by the US DOL, notwithstanding that the courts have not had occasion to consider this issue, it would seem that they would interpret the language in the Davis-Bacon Act and its implementing regulations as "stretch[ing] the meaning of 'employee' to cover some parties who might not qualify as such under a strict application of traditional agency law principles." *Nationwide Mutual Insurance Co. v. Darden*, 503 U.S. at 326. This leads to consideration of the specific questions posed in your February 27, 2006 memorandum.

III. Questions:

Assuming That an Individual is Legitimately Identified as an "Independent Operator:"

A. Under Davis-Bacon would a contractor be obliged to pay that "independent operator" the stipulated wage?

In *Edwards Furnace Co., Inc.*, WAB Case No. 77-28, 1978 DOL Wage App. Bd. LEXIS 12 (Sept. 18, 1978), a Department of Labor investigation revealed that four men working as carpenters on projects covered by a Davis-Bacon requirement did not receive the prevailing wage rate for the work they performed. The investigation showed that before starting work on these projects, each carpenter signed a contract with the contractor in which he agreed to perform certain work for a specified amount. Nevertheless, the Department of Labor investigator determined that the carpenters were the contractor's employees and that hourly wages received were far below the applicable prevailing wage rates for the work they performed. Based on the contractor's refusal to pay the remaining back wages and agree to future compliance, the Wage and Hour Administrator recommended that the Comptroller General of the United States debar the contractor from receiving federal contracts for three years.

On appeal to DOL's Wage Appeals Board, the contractor insisted that the carpenters were "independent contractors" and as such were not subject to the prevailing wage requirements of the Davis-Bacon Act and the regulations thereunder. The WAB dismissed the contractor's contention because it found that the four carpenters were not bona fide subcontractors. It appears that the Board based it holding in *Edwards Furnace Co.* on a finding that the putative independent contractors did not satisfy any of the criteria set forth in the common-law agency test rather than on the language in the Davis-Bacon Act and its implementing regulations discussed hereinabove. Specifically, the WAB commented:

> To the Board it seems clear that the contracts in question are merely a subterfuge to enable Petitioner to avoid the consequences of the prevailing wage statutes, therefore the carpenters cannot be considered bona fide subcontractors. From this it follows that the carpenters were actually employees of Petitioner and should have been paid the appropriate prevailing wage rate for carpenters.
>
> Following this view of this case *the Board does not reach the question concerning the status of bona fide subcontractors* which is the subject of the amicus curiae briefs filed with the Board by the Associated General Contractors of America, Inc., and the Associated Builders and Contractors, Inc.

Edwards Furnace Co., Inc., WAB Case No. 77-28, slip op. at 5, 1978 DOL Wage App. Bd. LEXIS 12 *6 (emphasis added).

The Board continued to flirt with the idea that laborers and mechanics who qualify as "bona fide independent contractors" might not be covered by the Davis-Bacon Act. In *Joseph Morton Co, Inc.*, WAB Case No. 80-15, 1984 DOL Wage App. Bd. LEXIS 18 (July 23, 1984), the Board rejected the contractor's contention that individuals, who a DOL Administrative Law Judge earlier found to be the contractor's employees, were not subject to the Davis-Bacon Act because they were bona fide independent contractors. However, the Board did not rely on the language in the Davis-Bacon Act discussed hereinabove.[4/] Instead, the Board found that Davis-Bacon coverage "is not

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[4/] Interestingly, the Wage and Hour Administrator not only relied on the WAB's earlier decision in *Edwards Furnace Co., Inc.*, but also an opinion issued by the Comptroller General of the United States entitled *TWP Co.*, 59 Comp. Gen. 422 (1980), which chastised the policy of the U.S. Department of the Air Force that the Davis-Bacon Act does not apply to contract work performed by coequal partners of a bona fide partnership. The Comptroller General held that members of a partnership who perform the work of a laborer or mechanic on a project covered by the Davis-Bacon Act must be paid not less than the prevailing wage rate applicable to the work performed. The Comptroller General relied on the last clause in Section 3142(c)(1) of the Davis-Bacon Act set forth on page 6 *supra*, which he said "cannot be defeated by a claim that,

defeated by calling an employee an independent contractor if in fact he is a laborer or mechanic on the job." Slip op. at 3, 1984 DOL Wage App. Bd. LEXIS 18 *3. The Board subsequently explained that the individuals in question were not "independent contractors" because:

> There has been no significant showing that any of these five laborers possessed the time accepted criteria of being independent contractors. A conventional construction project is not built with two regular employees. The employees on this project were non-English speaking persons who did not press their employer for the predetermined wages. The fact that they were unfamiliar with the prevailing wage statutes or their rights thereunder does not make them independent contractors in the eyes of the petitioner. The Board concludes that the petitioner exhibited a callous unfairness and a disregard of his obligations to his employees by not keeping proper records or in not paying the prevailing wage rates as the contract requires. Fairness to unsuccessful bidders on this project requires compliance with the predetermined wages rates at the enforcement stage.

Id. at 5-6, 1984 DOL Wage App. Bd. LEXIS 18 *6.

Ironically, six months after it issued *Joseph Morton Co, Inc.*, the WAB adopted without comment the findings and conclusions of law and the Order set forth in a Decision and Order issued by a DOL Administrative Law Judge in *Thomas J. Clements, Inc.*, WAB Case No. 84-12, slip op. at 2, 1985 DOL Wage App. Bd. LEXIS 6 *1 (Jan. 25, 1985). This opinion rejected a contractor's contention that the Wage and Hour Administrator was estopped from denying that certain laborers and mechanics were entitled to be paid in accordance with otherwise applicable Davis-Bacon prevailing wage rates, because the contracting agency, the U.S. Department of Housing and Urban Development, allegedly approved the use of independent contractors. *Thomas J. Clements, Inc.*, Case No. 82-DBA-27, 1984 DOL Wage App. Bd. LEXIS 2 (June 14, 1984). The ALJ stated in her opinion:

> The indicia which would determine whether or not a person employed was an independent contractor need not be reviewed since employment of any workman on the projects at lower than the wage rates required by law, would be contrary to

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due to some contractual relationship, an individual is an independent contractor although he is in fact performing the work of a laborer or mechanic." Thus, he concluded in *TWP Co.* that "[t]he controlling element, therefore, is the type of work performed, not the contractual relationship between the parties." Unfortunately, the Wage Appeals Board failed to heed the Comptroller General's simple and straightforward reliance on the plain language of the Davis-Bacon Act, and instead applied what it called "the time accepted criteria of being independent contractors."

> the law whether or not they were independent contractors, within the legal meaning of that term. The language of the Act as amended in 1935, (49 Stat. 1012), is clear and unambiguous. It manifests the intent of Congress to prevent circumvention of the law by creation of a contractual arrangement which would rebound to the detriment of the employee.

Slip op. at 7, 1984 DOL Wage App. Bd. LEXIS 2 *14 (citations omitted).

It was not until 1991 that the WAB overcame its infatuation with applying the common-law agency test or the "economic reality" test and fully embraced the plain language of the Davis-Bacon Act and its implementing regulations in *N.B.A. Enterprises, Ltd.*, WAB No. 88-16, 1991 DOL Wage App. Bd. LEXIS 61 (Feb. 22, 1991). In that case, the Board said:

> If a person works on a job site covered by the Davis-Bacon Act, that person is an "employee" within the meaning of the Act regardless of the common law relationship between the worker and the contractor. Congress clearly intended covering such workers regardless of the attempts of the contractor to distance itself from Davis-Bacon obligations.

Id., slip op. at 2, 1991 DOL Wage App. Bd. LEXIS 61*3.

One month later, the Board explained in *Lance Love, Inc.*, WAB No. 88-32, 1991 DOL Wage App. Bd. LEXIS 27 (Mar. 28, 1991):

> Section 1(a) of the Act [40 U.S.C. § 3142(c)(1) (formerly 40 U.S.C. § 276a(a)] applies a functional rather than a formalistic test to determine coverage: if someone works on a project covered by the Act and performs tasks contemplated by the Act, that person is covered by the Act, regardless of any label or lack thereof.

Id., slip op. at 2, 1991 DOL Wage App. Bd. LEXIS 27 *3. DOL's Administrative Review Board[5/] recently applied this analytical framework in *Superior Paving and Materials,*

[5/] In April 1996, the Secretary of Labor established the Administrative Review Board to succeed the former Board of Service Contract Appeals, Wage Appeals Board, and Office of Administrative Appeals. The Board consists of a maximum of five Members, one of who is designated the Chair. The Secretary of Labor appoints the Members based upon their qualifications and competence in matters within the Board's authority.

The Board's cases arise upon appeal from decisions of Department of Labor Administrative Law Judges or the Administrator of the Department's Wage and Hour Division.

Inc., ARB Case No. 99-065, 2002 DOL Ad. Rev. Bd. LEXIS 24 (June 11, 2002). In that case, the ARB rejected a contractor's argument that it was not required to pay off-duty police officers working as "flaggers" on a federally assisted highway construction project in accordance with the Davis-Bacon Act and other federal labor standards requirements because they were independent contractors. Citing the contract clause set forth in section 5.5(a)(1) of DOL's regulations implementing the Davis-Bacon Act, 29 C.F.R. § 5.5(a)(1), the Board said:

> This language is a stipulation required by 29 C.F.R. § 5.5, which in turn implements that portion of the Act which bars any alleged contractual relationship as a defense against the requirement of paying prevailing wages. 40 U.S.C.A. § 276a(a) (West 1994) [recodified as 40 U.S.C. § 3142(c)(1)]. The language relating to payment "regardless of any contractual relationship alleged" was not a part of the original 1931 version of the Act, but was added by amendment in 1935 to ensure that all workers performing the duties of laborers and mechanics on covered projects received the prevailing wages established for their classification of employment. In short, this language was enacted to prevent contractors from circumventing the DBA's requirements by resort to legal technicalities or traditional notions of employer/employee relationships.

Id., slip op. at 12, 2002 DOL Ad. Rev. Bd. LEXIS 24 *29-30 ((citations omitted). After discussing the Wage Appeals Board's prior decisions in *N.B.A. Enterprises, Ltd.* and *Lance Love, Inc.*, the ARB disregarded the contractor's argument that it should not be held liable for payment of prevailing wage rate to the "flaggers," which relied on state court decisions, tax court memoranda, and a revenue ruling (all of which applied the common-law agency test). The Board said these cases and opinions were not pertinent "[b]ecause of the specific language in the [government] contract, which covers laborers 'employed or working upon' the site. . . ." *Id.*, slip op. at 13, 2002 DOL Ad. Rev. Bd. LEXIS 24 *31.

Based on this precedent, it is reasonable to say that the U.S. Department of Labor requires contractors to pay even "legitimate independent operators," other than owner-operator truck drivers who qualify as bona fide independent contractors, not less than the prevailing wage

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The Board issues final agency decisions for the Secretary of Labor in cases arising under a wide range of labor laws, primarily involving environmental, transportation and securities whistleblower protection; immigration; child labor; employment discrimination; job training; seasonal and migrant workers and federal construction and service contracts. Depending upon the statute at issue, the Board's decisions are may be appealed to federal district or appellate courts.

rate required under the Davis-Bacon Act when they perform the work of a laborer or mechanic on a project covered by the Act.

B. Would this obligation still apply if the "independent operator" had negotiated a lump sum payment?

The form of payment negotiated by the contractor with laborers and mechanics to perform work on a project covered by the Davis-Bacon Act should have no effect on the entitlement of such laborers and mechanics to compensation in accordance with the prevailing wage rates set forth in the contractor's contract with the Government. As discussed hereinabove, the language of the Davis-Bacon Act and its implementing regulations unequivocally requires contractors to pay laborers and mechanics who work on their projects the prevailing wage rate "regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and the laborers and mechanics." This language does not permit circumvention because of the method of payment chosen by the contractor and the laborers and mechanics that may enter into a contractual agreement that provides compensation in the form of a lump sum payment.

C. Would this obligation still apply if the "independent operator" had negotiated a piece rate payment?

An agreement pursuant to which one or more laborers and mechanics agree to accept a piece rate payment for work performed on a project covered by the Davis-Bacon Act does not affect a contractor's obligation to pay such laborers and mechanics not less than the prevailing wage rate in the government contract for the same reason that payment of a lump sum pursuant to a contractual agreement between a contractor and one or more laborers and mechanics to perform work on a project covered by the Davis-Bacon Act does not affect the contractor's obligation under the Act to pay the laborers and mechanics not less than the prevailing wage rate specified in the government contract.

D. Would these requirements typically apply under the state-level Prevailing Wage Laws (the mini-Davis-Bacons)?

Thirty-one states have adopted their own prevailing wage laws. Many of the states modeled their so-called "little Davis-Bacon Acts" after the federal Davis-Bacon Act. When a state adopts a statute modeled after a federal law, a presumption arises that the state legislature knew and intended to adopt the construction placed on the federal statute by federal courts. This rule of statutory construction is applicable, however, only if the state and federal acts are substantially similar and the state statute does not reflect a contrary legislative intent. *The State of Nevada, Department of Business and Industry, Office of the Labor Commissioner v. Granite*

Construction Co., 40 P.3d 423, 426 (Nev. 2002) (quoting *Sharifi v. Young Bros., Inc.*, 835 S.W.2d 221, 223 (Tex. App. 1992) (citation omitted).

Application of the respective state prevailing wage statutes to workers treated by the contractor as independent contractors depends not only on the specific language of the statute, but also on whether the state courts will apply a common-law agency test, the "economic reality" test, or some other test of which I am not even aware.

For example, Section 3142(c)(1) of the Davis-Bacon Act, 40 U.S.C. § 3142(c)(1), provides in pertinent part that contractors and subcontractors must pay all laborers and mechanics "employed directly on the site of the work." Federal circuit courts interpreting the Davis-Bacon Act have concluded that the statutory phrase "directly upon the site of the work" limits coverage under the Act to employees working directly on, or virtually adjacent to, the physical site of the public work under construction. *L.P. Cavett Co. v. U.S. Dept. of Labor*, 101 F.3d 1111, 1115 (6th Cir. 1996) (holding that truck drivers hauling asphalt from a batch plant to a highway site were not employed "directly upon the site of the work" pursuant to Davis-Bacon Act); *Ball, Ball & Brosamer, Inc. v. Reich*, 24 F.3d 1447, 1453 (D.C. Cir. 1994) (holding that workers in borrow pits and batch plants two miles from the construction site were not employed "directly upon the site of the work" pursuant to Davis-Bacon Act); *Building Const. Trades Dept. v. Dept. of Labor*, 932 F.2d 985, 986 (D.C. Cir. 1991) (holding that the statutory language "directly upon the site of the work" restricts coverage of the Davis-Bacon Act to the geographical confines of the actual project site).

However, several states have broadly interpreted their prevailing wage laws to encompass activities performed at ancillary locations based on the failure of their state statutes to use the federal "directly upon" language. *The State of Nevada, Department of Business and Industry, Office of the Labor Commissioner v. Granite Construction Co.*, 40 P.3d at 427-28 (the phrase "at the site of the work" in the Nevada prevailing wage statute could include the transportation of materials from a remote location where they were assembled to the main public project construction site.); *Sharifi v. Young Bros., Inc.*, 835 S.W.2d at 223 (holding that truck driver delivering materials to a public works construction site was entitled to the prevailing wage); *Superior Asphalt v. Department of Labor*, 929 P.2d 1120, 1123 (Wash. Ct. App. 1997) (holding that truck drivers delivering material and incorporating the materials into the project are entitled to prevailing wages); *Green v. Jones*, 128 N.W.2d 1, 7 (Wis. 1964) (holding that truck drivers whose materials were distributed over the surface of the roadway immediately after their arrival at construction site were entitled to prevailing wages); *cf. Long v. Interstate Ready-Mix, L.L.C.*, 83 S.W.3d 571, 577-578 (Mo. Ct. App. 2002); *Board of Trade, Inc. v. Department of Labor, Wage & Hour Administration*, 968 P.2d 86 (Alaska 1998), *appeal after remand at, sub nomine, Board of Trade, Inc. v. State*, 2004 Alas. LEXIS 10 (Alaska, Jan. 23, 2004).

The same kind of analysis was applied in *State of Missouri ex rel., Laszewski v. R.L. Persons Constr. Co.*, 136 S.W.3d 863(Mo. Ct. App. 2004), a case in which a laborer sued the general contractor for unpaid wages for work performed on two public works projects covered by the Missouri Prevailing Wage Act. The contractor argued that the Prevailing Wage Act does not apply to independent contractors such as the plaintiff. *Id.* at 867. The plaintiff worker was paid by the hour by a subcontractor on both projects, which provided supplies and tools to him, and generally instructed him on what tasks to perform on the construction sites. The plaintiff worker did not receive pay stubs or W-2 forms from the subcontractor, nor did the subcontractor withhold any taxes from the plaintiff's check. The memo line on the paychecks issued to the plaintiff worker indicated that he was being paid for "contract work." The plaintiff worker kept track of his own hours, though he had general requirements as to the hours he was expected to work, and he requested time off as needed. The plaintiff worker filed his tax returns for the year when the wage underpayments allegedly occurred as a "self-employed individual" or a sole proprietor. He was able to claim a mileage deduction from traveling to the job site in on one of the public works projects and was able to deduct expenses for some tools he had purchased. The plaintiff worker further testified that the subcontractor had never informed him about the Prevailing Wage Act, did not see the posted notices on the public works projects sites, and until he received a letter from the State Division of Labor Standards, he was unaware that he had been underpaid. *Id.* at 868-69.

Nevertheless, the trial court below held that it was "unnecessary to determine the exact employment status of the plaintiff on his claim" and that "regardless of employment status, the obligation imposed by the Prevailing Wage Act is to ensure that all 'workmen' who perform work on a public works project are paid at least the prevailing wage." *Id.* at 869. The state appellate court acknowledged that the Missouri Prevailing Wage Act is based on and has a similar purpose to the federal Davis-Bacon Act. *Id.* at 870-71. However, the court noted that the Davis-Bacon Act is different from the Missouri statute inasmuch as the federal statute protects "employees" and individuals classified as "independent contractors "are specifically excluded from coverage." *Id.* at 871 (citing *National Labor Relations Board v. United Insurance Co. of America*, 390 U.S. 254, 255, 19 L. Ed. 2d 1083, 88 S. Ct. 988 (1968).[6/] Moreover, the court

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6/ While the Missouri appellate court accurately described the practical effect of the language in the Davis-Bacon Acton payment of prevailing wages to *all* laborers and mechanics who work on covered projects, the court mistakenly relied on *NLRB v. United Insurance Co.*, which did not concern the Davis-Bacon Act in any way. In *United Insurance*, a union won a certification election conducted by the National Labor Relations Board ("NLRB") pursuant to the National Labor Relations Act ("NLRA"), 29 U.S.C. § 151 *et seq.*, and sought to represent the insurance company's debit agents. The companies refused to bargain with the union because it claimed the agents were "independent contractors" who are expressly exempted from the NLRA. In the ensuing unfair labor practice proceeding the NLRB held that the debit agents were employees and ordered the company to bargain collectively with the Union. On appeal, the Court

observed that the Missouri statute "does not define 'employee' not does it specifically exclude 'independent contractors'" *Ibid.*

Consequently, the Missouri appellate court, applying a sort of "economic reality" test, held:

> The controlling element in the case was not that [the plaintiff worker] may have been an independent contractor but the fact that he performed the work of a laborer or mechanic. We find the language in *Friends of the Zoo*, 38 S.W.3d at 423 particularly instructive: "[a] public body constructing public works may not circumvent the prevailing wage law by a 'carefully constructed legal facade.'" We find that a contractor or subcontractor, which bids on and receives the benefits of a public works job, cannot circumvent the payment to the workmen who perform the actual labor by the use of the term "independent contractor" for all its laborers. The trial court did not broaden the language of the Prevailing Wage law in finding it unnecessary to determine whether [the plaintiff worker] was an employee or independent contractor. The trial court correctly found that he was a workman employed on a public works project.

Ibid. Hence, the court interpreted the Missouri Prevailing Wage Act as applicable to all workers who perform labor on a state public works project, just as the Davis-Bacon Act applies to such workers, even though the state statute lacks any express language to that effect.

State of Missouri ex rel., Laszewski v. R.L. Persons Constr. Co. is the only reported case of which I am aware that addresses application of a state prevailing wage statute to a worker classified as an independent contractor. However, it demonstrates the variety of issues that a court must consider whenever a question such as this arises under a state prevailing wage statute, and that resolution of such issues is completely unpredictable.

E. If "independent operators" are not covered by Davis-Bacon, what is the procedure for determining whether a worker is an employee or an "independent operator?"

Pursuant to Reorganization Plan No. 14 of 1950, 5 U. S. C. App., p. 746, the Secretary of Labor has issued regulations designed to "assure coordination of administration and consistency of enforcement" of the Davis-Bacon Act and some 60 related statutes. See 29 C.F.R. Parts 1, 3, 5, 7 (2005). In their turn, various federal contracting agencies have issued detailed regulations

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of Appeals found that the debit agents were independent contractors and refused to enforce the Board's order. The Supreme Court reversed, reinstating the NLRB's findings that the debit agents were employees, and ordered the insurance company to bargain collectively with union.

concerning the applicability of the Act to the contracts they award. The contracting agency has the initial responsibility for determining whether a particular contract is subject to the Davis-Bacon Act. If the agency determines that the contract is subject to the Act, it must include the contract clauses set forth in the Department of Labor's Davis-Bacon regulations, 29 C.F.R. § 5.5 (2005).

Section 5.13 of the Department of Labor's Davis-Bacon regulations, 29 C.F.R. § 5.13 (2005), provides:

> All questions relating to the application and interpretation of wage determinations (including the classifications therein) issued pursuant to part 1 of this subtitle, of the rules contained in this part and in parts 1 and 3, and of the labor standards provisions of any of the statutes listed in Sec. 5.1 shall be referred to the Administrator for appropriate ruling or interpretation. The rulings and interpretations shall be authoritative and those under the Davis-Bacon Act may be relied upon as provided for in section 10 of the Portal-to-Portal Act of 1947 (29 U.S.C. 259). Requests for such rulings and interpretations should be addressed to the Administrator, Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210.

In turn, any "interested person" may appeal the Administrator's determination to the Department's Administrative Review Board. 29 C.F.R. Part 7 (2005). Decisions issued by the ARB are judicially reviewable under the standards of the Administrative Procedure Act, 5 U. S. C. § 701 *et seq*. *See Virginia ex rel. Commissioner, Dept. of Transp. v. Marshall*, 599 F.2d 588, 592 (4th Cir. 1979); *North Georgia Bldg. & Constr. Trades Council v. Goldschmidt*, 621 F.2d 697, 707-708 (5th Cir. 1980); *George Campbell Painting Corp. v. Chao*, 2006 U.S. Dist. LEXIS 3318 (D. Conn. 2006); *Miree Constr. Corp. v. Dole*, 730 F. Supp. 385, 389 (D. Ala. 1990). *Cf. Fry Bros. Corp. v. U.S. Dep't of Housing and Urban Development*, 614 F.2d 732, 733 (10th 1980).

Thus, a contractor or subcontractor or a contracting agency might ask the Administrator, pursuant to 29 C.F.R. § 5.13, to determine whether laborers and mechanics working on a construction project covered by the Davis-Bacon Act are "employees" or "independent contractors." However, it is more likely that this issue would arise in the context of an enforcement proceeding.

Section 3142(c)(3) of the Davis-Bacon Act, 40 U.S.C. § 3142(c)(3), states that every contract to which the Act applies must also provide that if the contractor fails to pay the minimum wages specified in the contract, the government contracting officer may withhold so much of the accrued payments as may be considered necessary to pay the laborers and mechanics the difference between the contract wages and those actually paid. Section 5.11 of the

Department of Labor Davis-Bacon regulations, 29 C.F.R. § 5.11 (2005), sets forth the procedure for resolving disputes of fact or law concerning payment of prevailing wage rates, overtime pay, or proper classification. This procedure may be initiated upon the Administrator's own motion, upon referral of the dispute by a federal contracting agency pursuant to 29 C.F.R. § 5.5(a)(9), or upon request of the contractor or subcontractor(s).

Pursuant to this procedure, the Administrator makes an initial determination concerning the status of one or more laborers and mechanics found working as "independent contractors" on a covered project. The Administrator would then notify the affected contractor and subcontractors (if any) by registered or certified mail of a determination that the workers in question are not properly classified as "independent contractors." 29 C.F.R. § 5.11(b)(1) (2005). If the Administrator determines that there is reasonable cause to believe that the contractor and/or subcontractor(s) should also be subject to debarment under the Davis-Bacon Act or 29 C.F.R. § 5.12(a)(1), the letter would so indicate. *Id.* A contractor and/or subcontractor that wants a hearing concerning the Administrator's investigative findings is required to request such a hearing by letter postmarked within 30 days of the date of the Administrator's letter. 29 C.F.R. § 5.11(b)(2) (2005).

Upon receipt of a timely request for a hearing, the Administrator then refers the case to the Department of Labor's Chief Administrative Law Judge by Order of Reference for designation of an Administrative Law Judge to conduct a hearing. 29 C.F.R. § 5.11(b)(3) (2005). The hearing is conducted in accordance with the procedures set forth in 29 C.F.R. Part 6 (2005). The ALJ issues a decision at the conclusion of the hearing, which must include findings of fact and conclusions of law, with reasons and bases therefor, upon each material issue of fact, law, or discretion presented on the record. 29 C.F.R. § 6.33(b) (2005). Any aggrieved party can file a petition for review of the ALJ's decision with the Administrative Review Board pursuant to 29 C.F.R. § 6.34 (2005), and the ALJ's decision and order is inoperative unless and until the Board either declines to review the decision or issues an order affirming the decision. 29 C.F.R. § 6.33(b)(1) (2005). As already mentioned, the ARB's decisions are judicially reviewable under the standards of the Administrative Procedure Act, 5 U. S. C. § 701 *et seq*. As I already mentioned, there has never been judicial review of the Department of Labor's interpretation of the Davis-Bacon Act that all laborers and mechanics working on projects covered by the Act entitled to payment of the prevailing wage rates prescribed in the government contract.

Please contact me if you require any additional information concerning this matter, or you have any questions about this opinion.

cc: Edward C. Sullivan, BCTD President
Sean McGarvey, BCTD Secretary-Treasurer

Appendix C - Literature Review

Research Review
Relating To Fair Wage Policies:

Canadian and American Evidence and Current Policies

Dr. Richard P. Chaykowski

1. Executive Summary

This review of Fair Wage policies focuses on the characteristics of current Fair Wage laws in Canada and on the available research evidence regarding the impacts of the policies on productivity and costs. The main focus is on studies of fair wage policies and their impacts in Canada but the review also draws upon the evidence available for the United States. The United States has had longstanding Fair Wage policies (e.g., Davis-Bacon at the federal level) and the body of research on their impacts is more extensive than what is available in Canada.

The review begins with an overview of the origins of fair wage policies. The development of fair wage policies in Canada appears to have followed that of Britain in terms of the policies being established at the city level and then also at the broader federal level. Fair wage policies currently exist, or have recently existed, at all three levels (municipal, provincial and federal) of government.

The review then considers the variety of policy rationales for seeking what may be generally described as "fair wages" in the labour market, including the presence of discrimination, market imperfections, and various institutional factors. The rationale for a Fair Wage policy rests on the extent to which the construction labour market is not generating the desired outcomes. Fair Wage policies are particularly well matched to the characteristics of the construction labour market.

In fact, several factors operating in the construction industry create terms and conditions of employment that suggest utilizing fair wages as a policy response. These factors include the continued prevalence of underground construction activity, the heavy reliance on subcontracting, and limited bargaining power of individual nonunion workers. These factors can create conditions in which labour standards are at risk, low wages become prevalent among some workers, and maintaining health and safety standards becomes problematic in the nonunion segment of the workforce.

The review proceeds with a comparative analysis of contemporary fair wage policies from across jurisdictions, including the existing federal, provincial and municipal policies as well as major legislation in British Columbia that was recently repealed. The main aspects of fair wage policies that are considered include: their stated purpose or rationale; the definition of "fair wage," the scope of coverage of the law (e.g., value and segment of the industry covered); the coverage of employment conditions (including wages, benefits, and health and safety standards, etc.); the wage schedules; and enforcement of the laws.

A model is developed that provides a conceptual context for considering the relationships between fair wage policies and different labour market and other economic outcomes in the construction industry. The model also provides a framework for understanding the diverse research literature that examines the impacts of Fair Wage policies on various workplace and labor market outcomes.

Within the model, the primary (short term) potential labour market impacts of Fair Wage policies are characterized as being on compensation and workplace outcomes such as training, and health and safety. Other effects, such as those on construction costs and productivity, are expected to be longer term.

The review of the main findings from the published literature, as well as the comparative analysis of the main features of extant Canadian fair wage policies, suggests that fair wage laws have a direct positive effect on wage levels and health and safety outcomes. While the impact on wages may operate to increase construction costs, at least in the short run, higher compensation in the form of higher wages and benefits may also induce greater worker effort and hence productivity. Improved accident outcomes may also have a direct positive impact on productivity – as well as achieving lower costs.

By supporting unions, Fair Wage laws are seen as having an indirect impact on training and, therefore, on productivity. This line of causality is identified in the research on the impact of fair wage laws on training outcomes. Thus there also appear to be strong linkages between fair wage policies, training and apprenticeship programs, and productivity.

2. Origins of, and Historical Rationale for, Fair Wage Policies

Fair wage laws are an important example of one of the longest standing types of labour legislation in Canada, Britain and the United States. Their origins date back to the late 1800s where they had their beginnings in local areas or towns; and by the turn of the next century national legislatures had begun to bring forward broader fair wage legislation. While there appears to be a dearth of research on the exact lineage of the Canadian (or American) forms of fair wage policies, it is likely that, at least in the case of Canada, the policies were closely modeled after the British laws in terms of both their motivations as well as form.[1]

The development of fair wage policies in Canada appears to have followed that of Britain in terms of the policies being established at the city level and then also at the broader federal level. Fair wage policies currently exist, or have recently existed at the three levels of municipal, provincial and federal governments – although there are currently only a few cities and provinces that actively support fair wage policies.

This section includes a brief overview of the origins of fair wage policies. It begins with the origins of fair wage policies in Britain, as well as their rationale. This section then identifies some of the salient characteristics of the development and structure of fair wage policies in the United States and Canada.

Early Developments in Britain

The main concerns that motivated the earliest British fair wage laws were the prevalence of subcontracting and sub-letting of work. These practices, together with sweatshop labour, resulted in: [2] very low wages, to the point that some wage levels did not provide subsistence; the avoidance by employers of providing even basic labour standards; and general downward pressure on wages. These conditions created concern within the public at large but also among trade unions, who recognized that these practices posed a threat to their viability. Consequently, unions advocated strongly for fair wage policies.[3]

While fair wage policies had been adopted locally in several regions, some federal government departments also agreed to enforce fair wage principles in their employment of contractors.[4] Finally, in 1891 the House of Commons passed the first Fair Wages resolution stating:

[1] The influence of British labour legislation on Canadian policy was not uncommon through the period up to World War II.
[2] Source: Kahn-Freund 1948a: 275. Also see Azari-Rad, Philips and Prus (2005:10).
[3] See Kahn-Freund (1948a: 273).
[4] For example, this was the case for His Majesty's Stationary Office in 1884 (Kahn-Freund (1948a: 273).

> "That in the opinion of this House, it is the duty of the Government in all Government contracts to make provisions against the evils recently disclosed before the Sweating Committee, to insert such conditions as may prevent the abuse arising from sub-letting, and to make every effort to secure the payment of such wages as are generally accepted as current in each trade for competent workmen." (Osborne 1896:153)

In 1909, the House of Commons passed a Fair Wage resolution that directly linked the fair wage and hours standard for workers to union wages and hours prevailing in the industry.[5] While this would clearly benefit nonunion workers, unions also recognized that it would serve to prevent the undercutting of higher paid union jobs by low-wage nonunion contractors. Consequently, unions were strong supporters of fair wage policies for government contracts. This strengthening of the linkage between the "fair wage" and the "union wage" was an important development because it, at least implicitly, acknowledged the prevailing union wage as the appropriate comparator.

The fair wage policy therefore supported fairness in the labour market by ensuring wages did not fall below subsistence levels, it prevented increased competition on the basis of lower labour costs (i.e., wages), and it allowed governments to lead the private sector as "model employers."[6] In practice, the policies were put into practice by having the fair wage standards (i.e., wages and working conditions) made binding on contractors and their subcontractors by specifying the required conditions in the construction contracts, and the policies were enforced, much as they are today, with financial penalties for violations.[7]

Main Legislative Developments in the United States

Prevailing wage laws evolved in the United States at both the federal and state levels. As was the case in Britain, fair wage policies in the United States (referred to as "prevailing wage laws") also dated back to the late 1800s. They essentially evolved out of legislation aimed at improving basic labour standards.

At the federal level, the *National Eight Hour Day Act* of 1868 regulated hours of work and pay on federal government contracts, limiting daily hours to eight, but mandating as well that wages not be decreased – thereby, in effect, legislating a higher wage.[8] A major advancement in prevailing wage policy came with the enactment of the federal *Davis-Bacon Act* in 1931.[9] A main feature of the *Davis-Bacon Act* has been its reliance upon regional wage surveys to determine the fair wage that was to be applied in government

[5] Source: Kahn-Freund (1948a: 276).
[6] See Kahn-Freund (1948a: 273).
[7] See Osborne (1896:153) on government enforcement and Kahn-Freund (1948a: 278) on enforcement on sub-contractors and penalties.
[8] See Azari-Rad, Philips and Prus (2005: 5-7).
[9] See discussion by Azari-Rad, Philips and Prus (2005: 13-14); and Philips (1999: 14-15); and Goldfarb and Morrall (1981).

construction contracts. The original system for determining the prevailing wage was established in 1935 by an amendment to the original legislation.[10]

Several state prevailing wage laws were also enacted in the late 1800s:[11] the first prevailing wage policy at the state level was enacted in 1891 in Kansas; this was quickly followed by New York in 1894; other states soon enacted their own prevailing wage laws, so that by the 1920s roughly eight states had such policies for government projects. Currently, just over thirty states have prevailing wage laws, and nine states have repealed their prevailing wage laws since they first enacted them.[12] The outright repeal of state prevailing wage laws first occurred in 1979 through the 1980s; from 1982-1996 Kentucky exempted school construction from its state prevailing wage law; and recently, some consideration of repealing the prevailing wage law has occurred in Wisconsin, for example.[13] While a majority of states continue to have fair wage laws, there reach has been weakened over the past several decades.

The Evolution of Fair Wages in Canada

Although Fair Wage Policies essentially originated in Britain, they have long been established in Canada, where they have tended to follow the rationale and content of the British policies. These policies were based on the objectives of achieving fairness across employers bidding for government work. They were intended to prevent the worst employer practices and ensure that labour received a fair return on their work.

Although trade unions have been the main supporter of fair wage policies in Canada, governments recognized early on that there are sound policy reasons for enacting fair wage policies. In addition to the importance of operating as a model employer, governments tended to realize the broader benefits of these policies in reducing the employment of (sub)contract workers at very low wages and without benefits, improving health and safety practices and outcomes and, by helping to sustain unions, supporting training.

As was the case in Britain, some of the earliest formal fair wages policies in Canada were established at the local, city, level of government, with national policies following soon after. For example, the city of Toronto fair wage law was first established in 1893, thus

[10] The original rule was that the prevailing wage was that wage for which "… 30 percent of the workers in a specific construction occupation (such as carpenters) in an area are paid the same rate…" (Azari-Rad, Philips and Prus (2005: 14); also see Goldfarb and Morrall (1981: 193). In practice, in the early years, the prevailing wage was determined to be the union wage (because of relatively high union density) (Azari-Rad, Philips and Prus 2005: 14). However, Reagan changed the 30% cutoff to 50% in 1985 (Azari-Rad, Philips and Prus (2005: 15); this would have the effect of reducing the correspondence of prevailing wages to union wages in an occupation. This effect would be accentuated by a decline in construction union density.

[11] See Azari-Rad, Philips and Prus (2005:13) and Philips (1999:23, Table 2).

[12] See Azari-Rad, Philips and Prus (2005:14) and Philips (1999:23, Table 2).

[13] See Philips (1999) and Belman and Voos (1995).

predating the federal initiatives.[14] By 1900, motivated by desire to take a leadership role as a "model employer" in the terms and conditions of work as well as by a "fairness" objective, the federal government established a policy of paying fair wages in its contracting activities.[15]

The earliest significant federal legislation was the *Fair Wages and Hours of Labour Act* of 1935. This legislation covered wages and hours of work. This legislation has, subsequently, been amended, but has two important features: first, the definition of fair wages continues to include only wages and not benefits;[16] second, while the earlier approach to establishing fair wages linked fair wages to the prevailing union wages, more recently the fair wage has essentially been defined according to wage schedules developed on the basis of regional construction industry wage surveys which are conducted periodically.[17]

While the process of establishing fair wage schedules has lapsed during some periods, (e.g., the policy was effectively suspended under the "six and five" wage control program of 1982), the establishment of wage schedules was re-established by the end of the 1990s and wage surveys are currently carried out by Statistics Canada.[18]

Most provinces have not formally developed a fair wage policy, and even fewer have promulgated distinct fair wage legislation. Instead, most provinces have tended to support fair wages, to the extent that they do, through some form of broader labour standards legislation. A notable exception is British Columbia, which established *Bill 37, Skills Development and Fair Wage Act* in 1994. This legislation is unique by virtue of its emphasis on skills and training and in emphasizing the linkages between fair wages, unions and training and, ultimately, productivity. Another government subsequently repealed this legislation.

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[14] Source: Toronto. Fair Wage Policy. (extract from Schedule A of the City of Toronto Municipal Code, Chapter 67) (07/03). Section A2.

[15] Source: Stanley (1998:5).

[16] See HRSDC. "Briefing Note on Fair Wages" (2003) (mimeo).

[17] These surveys would include both union and non-union employers.
See Stewart (1941:434) on the early approach to determining the "fair wage" in which union wages were a factor. On the more recent approaches to determining fair wages, refer to Stanley (1998:12) who notes:

> "At the time the Department* ceased issuing fair wage schedules in 1983, they were pursuing an "objective figure", a figure which attempted to match what was actually paid to workmen in certain classifications in certain districts. They sought to identify that figure through wage surveys of employers." [*Department of Labour]

[18] Refer to Swimmer (1995), Stanley (1998), and Rose (1992) on wage controls as well as fair wages; and see HRSDC ["Briefing Note on Fair Wages" (2003) (mimeo) (provided by the Labour Program, HRSDC (March 2005) upon request)] on the re-establishment of surveys and their conduct by Statistics Canada.
In practice, the federal jurisdiction also relies upon wage schedules established in provincial jurisdictions, but currently these schedules are either nonexistent or typically out of date, rendering them, for all intents and purposes, unusable (as is the case in Ontario, for example).

Ontario also stepped back from fair wages by not updating its wage schedules – to the point in time where they have become unworkable.[19] Ontario has never actually had a formal Fair Wage policy enacted through legislation.[20] Instead, the government promulgated Fair Wage schedules for construction, which covered both urban as well as rural areas.[21] Wage surveys were conducted to determine the wage schedules applicable in rural areas while, in urban areas, fair wages were linked to the wage schedules determined in the unionized segment of the industry; in neither case were benefits ever included.

This policy effectively ended in 1995 when the government of the day suspended the process of updating the wage schedules. Consequently, the most recent schedule made available by the Ontario government was 1995, which has resulted in the erosion of the real value of the wage schedule over time (due to both inflation and the fact that wages have continued to advance in the unionized segment of the industry).

On the other hand, as ineffective as the provincial fair wage policy may be judged to have become, cities such as Toronto, Hamilton and London, among others, continue to take a leadership role in establishing strong fair wage policies. Consequently, the most formal and comprehensive Fair Wage policies in Ontario exist at the municipal/city level of government. Thus, in Ontario, whereas the provincial government role in fair wage policy has receded in the past two decades, the role of several key cities in maintaining the relevance of the policy has remained significant.

The Quebec situation is unique within Canada and is a function of its unique approach to industrial relations and labour policy. As early as 1934, wages in most industries in Quebec were determined through a combination of collective bargaining and the decree system (established under the *Act respecting Collective Agreement Decrees*).[22] Under the decree system, the government (responsible minister) had:

> "… the power to take the results of collective negotiations between a group of employers and a union or a group of unions and apply certain provisions of this agreement to all employers and all employees in a given industry and in a given region … it was aimed at eliminating competition over wages and working conditions among firms operating in the same industry." Boivin and Déom (1995: 476)

The legislation that gave rise to the decree system was subsequently replaced, in 1969, by new labour relations legislation (the *Act Respecting Labour Relations in the Construction Industry*). Under this legislation, collective bargaining in construction became centralized

[19] Also see the discussion by Stanley (1998:3).
[20] In Ontario, the basis upon which fair wage schedules were established have always followed from an Order-in-Council (see Armstrong and O'Grady (2004:109).
[21] This description of fair wage policy in Ontario is based on Armstrong and O'Grady (2004:109-110).
[22] See Charest (2003:101) and Boivin and Déom (1995: 476).

and industry-wide (for many, but not all, terms and conditions of employment), with joint union-management structures being developed over time to ensure that key employment conditions are consistent throughout the unionized segment of the industry.[23] Thus the tradition in Quebec is to effectively extend and regularize many of the key terms and conditions of employment across the industry. This policy approach essentially had a similar, if not stronger, effect than a fair Wage policy would have had.

The State of fair Wage Policies in Canada

Where formal fair wage policies exist in Canada, they typically cover wages, benefits and hours (including overtime rates). They also emphasize health and safety outcomes. This is typically accomplished by requiring that contractors abide by provincial occupational health and safety legislation. The BC legislation was unusual in its explicit emphasis on training.

Therefore, with the exceptions of the recent BC legislative experience, and the continuing strong Toronto fair wage policy, perhaps the leading jurisdiction on fair wages in the federal jurisdiction. Most provinces have essentially retired from active policy making on fair wages. Jurisdiction over labour policy in Canada is essentially divided horizontally across the various provincial and federal jurisdictions. In addition, since World War II, the provinces have, increasingly, asserted their jurisdiction over labour policy matters. These two factors have resulted in the federal government being relegated to a leadership role outside of the areas for which they have explicit authority in labour matters.

[23] See Charest (2003:102). Also see Boivin and Déom (1995). Employment conditions would, for example, vary across trades but, for a given trade, would be consistent across the province.

3. Fair Wage Policies and Fairness Objectives in Labour Policy

Fairness in Wages and Competitive Markets

In competitive labour markets, a sufficiently large number of firms would be observed to operate such that, in hiring workers, any one firm would not have to alter the wage rate they would need to offer in order to attract all the workers it requires. In other words, a single firm could never hire so many workers such that it could affect the wage rate.[24] Firms that attempted to offer less than the market wage would attract no workers. In this context, workers' wages are linked to their marginal productivity.

"Fairness" in the context of wages can be defined with some elasticity. In general, though, one can define fairness in the sense of workers receiving a wage that one would expect to be generated by competitive markets. But wages may, in practice, be observed to deviate from the levels that one expects to be generated under competitive market conditions. In a market economy, the public policy goal is, typically, to encourage the operation of the labour market to determine workers' wages.

Such observed wage differences could arise for a variety of reasons, including the presence of discrimination, the effect of market imperfections or failures, or the influence of institutional factors. Each of these types of circumstances is often observed in our labour markets. From a policy viewpoint, these sources of deviation from market-determined wages are of concern because they can give rise to economic inefficiencies and economic and social inequities.

The policy rationale for ensuring "fairness" in compensation is, therefore, often rooted in *both* efficiency and equity concerns (that arise in the presence of some type of market failure, discrimination, and so forth).[25] That is, consistent with legitimate policy concerns over economic efficiency are policy objectives of wanting to achieve "fairness" because of the underlying (normative) argument that pay differences across work that is, in itself, equivalent are not "equitable".

The objective of ensuring "fairness" in wage determination (and outcomes) in the labour market is currently reflected in a range of Canadian public policies. In what follows, fairness in wage outcomes is considered in the context of each of discrimination, market imperfections, and institutional arrangements, in turn.

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[24] Such conditions do, however, exist. For example, a large firm in a local labour market may demand so many workers (e.g., certain types of skilled trades) that the wage is "bid up" over time in order to attract the workers the firm requires. This situation, in which the firm affects the wage level through its hiring, is referred to as *monopsony* in the labour market; by definition such a labour market is not *competitive*. See Ehrenberg, Smith and Chaykowski (2004).

[25] One argument is simply that we do not always (often) observe markets to operate fully competitively in practice.

Discrimination

The first context in which public policy has attempted to address fairness relates to discrimination in the labour market. Discrimination is generally directed at groups defined by certain demographic characteristics and is associated with lesser economic opportunities in the labour market for the targeted group, including lower wages, and inferior employment prospects (e.g., occupational segregation).[26] These are observable outcomes, and it is generally accepted that discrimination is a persistent and ongoing problem that has not been "self-correcting" over time.

Labour market policies, such as pay equity legislation and employment equity legislation, are aimed at ameliorating the economic consequences of discrimination in the labour market. The underlying objective of these labour market policies (e.g., pay equity) is to achieve "fairness" in pay across workers in the labour market. The principle is that people with similar productive characteristics, and working in similar employment contexts, should receive similar pay, regardless of any differences in personal characteristics (notably sex, race and age) that are unrelated to productivity.[27]

That is, if the value of what workers produce is similar, we would expect the market to generate equal returns across people regardless of differences in personal characteristics unrelated to productivity (i.e., economic fairness). In the presence of discrimination, however, we do observe such arbitrary differences in pay and other economic opportunities. Consequently, policies are required to correct this outcome.

Other policies aimed at countering discrimination, such as education programs, are longer run in nature. They are important because it is also recognized that discrimination has a systemic dimension. Improving the long run economic opportunities of the group suffering discrimination therefore requires addressing more than just labour market issues.

Market Imperfections

Seemingly arbitrary (nonrandom) differences in pay across workers in a given industry, and performing similar work, may be observed in circumstances in which the differences in pay do not arise from either discrimination or differences in the productive characteristics of the workers. These differences may arise from market imperfections.

These market imperfections may create wage differentials but also economic inefficiencies (e.g., in the allocation of labour across regions; or worker mobility across

[26] For a definition of discrimination in the context of labour markets, see Ehrenberg, Smith and Chaykowski (2004: 372).

[27] Here a similar employment setting refers to the industry, business, and workplace context (e.g., including technology of production).

firms; or by affecting the supply of workers to certain occupations). There are a variety of circumstances under which such pay differences may arise.

A common reason is that there may be some types of market rigidities. For example, rural-urban differences in pay, or persistently high regional unemployment rates, may reflect the (high) costs of mobility to workers. In the absence of a way to reduce the mobility costs, workers may be confined to their local labour market and unable to move. This would have the effect of preventing normal adjustments in labour supply from occurring in a way that tends to equalize wages (or unemployment) across regions within an occupation and sector.[28] In this case, a typical policy response would be to intervene in order to reduce those mobility costs.

Alternatively, a lack of information about job prospects may dissuade workers from incurring the costs associated with "moving first" and then searching for employment later. Policies aimed at improving information about labour market opportunities (e.g., electronic job banks) can assist in improving information flows.

The *prima facie* policy rationale for addressing wage differences arising from these types of issues is, therefore, one of efficiency. But it is equally consistent with the objective of achieving equity in pay.

Institutional Arrangements: The Case of Unions and Wages

Institutional structures and arrangements in the labour market can give rise to pay differences across workers. Unions are typically cited as the most common example. Unions essentially act as institutional intermediaries in the employment relationship.

Unions are also among the most important of institutional factors in Canadian labour markets that may give rise to differences in pay across workers. Unionized workers may, for example, receive higher pay than comparable nonunion workers as a result of their superior bargaining power with employers.

Studies that account for the various factors that can give rise to pay differences tend to find, on average, a union wage premium in the order of at least 10-15 percent in Canada – although, the magnitude of the earnings differences varies across industries and occupations and over time.[29] In construction, the union-nonunion wage differential tends

[28] Of course, this would apply to an occupation "in some reasonable geographic proximity"; compensating wag differentials could also be accounted for.
[29] Reviews of estimates of the union relative wage effects for Canada are found in Chaykowski and Slotsve (1996) and Renaud (19)

to be at the higher end of this range, at roughly 15-20%.[30] In addition, unions also raise benefits levels.[31]

It is generally acknowledged in contemporary labour (relations) policy that there exists a basic power (as)symmetry in the employment relationship; that is, there is a fundamental power imbalance between individual workers and employers that favours employers (although the power asymmetry would be expected to vary across workers of different skill levels).[32] Unions typically serve, by providing a means for collective action, to provide workers with greater bargaining power in the employment relationship. This logic underpins the normative argument that unions can "secure a fairer wage deal" for labour and provide "industrial justice" – both of which have strong equity rationales.[33]

The issue of the appropriateness of the wages of unionized workers being (substantially) higher than the wages of nonunionized workers is typically not addressed by labour policy, except in the case of Quebec.[34] In Quebec, historically, there has been a decree system, by which wage settlements obtained in the unionized segment of an industry would be extended to the nonunionized workers.[35]

The rationale for this policy appears to be both on equity and efficiency grounds. On the one hand, it may be viewed as fair to extend the negotiated wage to all workers in an industry or occupation who perform similar work. It may also serve the purpose of preventing competition primarily on the basis of low (labour) costs, thereby also protecting the standards of living of workers.

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[30] Source: Verma and Fang (2002:17, Chart B and Chart C).
[31] Union are found to have a positive effect on benefits levels as well; and they increase benefits as a proportion of total compensation. See Kornfeld (1993) and Freeman (1981).
[32] See Smith (1776) on the basic disadvantage of workers in labour markets; and see Reder (1994) on expected differences in the imbalance of power across skill levels.
[33] Labour relations policy has never been particularly concerned with the issue of unions and economic efficiency, per se. Rather, the focus has, in the first instance, been on the rights of workers to form an association in order to collectively represent their employment interests to employers. Efficiency arguments tend to arise in the context of ensuring that employers' economic efficiency/ viability is not hindered.
[34] A point in time exception to this was the "Wage and Price Control" policy of the federal government in which union wage gains were essentially viewed as creating "cost-push" inflation and therefore ought to be controlled.
[35] See Boivin and Déom (1995).

Fairness and Efficiency Objectives and Fair Wage Policies in the Labour Market

The extent to which the labour market is generating the desired (i.e., efficient and equitable) outcomes is essentially an empirical matter. Whether or not efficient outcomes occur depends upon the extent to which the labour market is operating competitively. Alternatively, there may be a variety of constraints or imperfections in how markets function that generate inefficiencies or inequities.

Historically, the concern in the construction industry was that the market was generating workplace and labour market outcomes that were deemed undesirable from either an efficiency or equity viewpoint. Several important characteristics of the construction labour market, notably short worker-employer attachments that are based on specific projects and the competitive process of project contracting, result in intense pressure on employers to be competitive on the basis of low labour costs as well as in a considerable overall power imbalance between workers and employers.[36]

In the absence of unions that adjust the balance of power between labour and management, pressure on employers to reduce labour costs leads to an "unvirtuous circle" of employment outcomes including: low wages and benefits; a reliance on nonstandard employment relationships (especially subcontracting); little incentive to invest in training; and decreased incentives to invest in workplace measures that improve health and safety outcomes.

Low levels of investment in training are also a function of the high turnover of workers from project-to-project and, consequently, from employer-to-employer, which reduces the period of time that firms have in which to recoup any training investment in the worker. The result, from the viewpoint of the industry as a whole, is insufficient investment in training; this may, in turn, negatively impact productivity.

These same factors (e.g., pressure on employers to reduce labour costs) may be expected to lead to incentives to engage in noncompliance with payroll tax requirements (i.e., avoidance of payroll costs). Employers may achieve this by relying upon contractors who they can deal with as "independent operators" even when they meet the test as being dependent contractors.[37] Further, a reliance on "independent operators" facilitates noncompliance with health and safety standards, which is consistent with the goal of minimizing employment-related costs.

Contemporary Fair Wage policies typically target inadequate wages and benefits, poor health and safety outcomes, and insufficient training activity in the construction industry. Fair Wage policies have the effect of raising the wages of nonunion workers closer to the level of union wages. Fair Wage policies also mandate that certain benefits be provided; and since many benefits are tied to wages, benefits are expected to be higher in the presence of Fair Wage laws. Fair Wage laws also typically mandate that contractors must

[36] For example, see Armstrong and O'Grady (2004) and Belman and Voos (1995). These characteristics of the construction industry, and others, are outlined in Section 4 that follows.
[37] See Armstrong and O'Grady (2004).

abide by provincial health and safety legislation, and provide mechanisms to ensure compliance. Finally, as described in detail below in Section 5, Fair Wage laws support training indirectly through their positive effect on unionization.

Fair Wage Policy as a Complement to Other Labour Market Policies

There are a variety of policy rationales for seeking what may be generally described as "fair wages" in the labour market, including the presence of discrimination, market imperfections, and various institutional factors. In general, there is both an efficiency as well as an equity rationale for pursuing fair wages.

Once it has been determined that policy action is required to achieve fairer wages, there are a variety of levers available to give effect to this policy objective. The specific policy chosen may vary according to the intended labour market outcome that is the target, and the anticipated degree of intervention that is required.

The argument for a Fair Wage policy rests on the extent to which the construction labour market is (not) generating the desired outcomes. While Fair Wage policies represent but one among many potential policy alternatives for achieving fair pay and working conditions, and superior health and safety and training outcomes, the policy is particularly well-matched to the characteristics of the construction labour market. In the following section, I turn to the issue of "fairness" in pay in the construction industry.

4. The Construction Labour Market and "Fairness" in Wages

The Nature of the Construction Labour Market

As discussed above, in most labour markets, industry-level wages would be determined by aggregate forces of supply and demand for labour; while each individual firm would take the prevailing wage in the industry and hire the number of workers it required. While most industries have some employment practices that are unique to them, most also have some common features that lend themselves to the establishment of competitive markets. These features include medium to long-term employment contracts for regular full-time employees, employees tend to be spatially anchored to a particular work location, employment is subject to economic cycles, and competition is based on a combination of costs (both labour and capital) as well as the nature of the product or service (e.g., quality).

There are a number of dimensions along which the characteristics of construction are different from most other industries such that, taken together, these characteristics make employment and wage determination in the industry somewhat unique.[38] Some of the main characteristics include:[39] a high degree of worker mobility across employers, not only in the long run but often in the immediate employment context; a lower degree of spatial attachment to physical job sites, as workers may move from site to site; a very high reliance on both contracting and subcontracting arrangements, which make employment relationships both nonstandard as well as indirect; wage structures that tend to be regional in scope and collective agreements that span multiple employers; a heavy dependence on apprenticeship programs to meet industry training requirements, including a strong reliance on joint-union-employer programs to deliver apprenticeship training programs; and competition among contractors based, to a very large extent, on labour costs.

In addition, there is a significant and apparently growing underground segment of the industry, notably in the ICI sector.[40] Employment relationships in the underground economy are negotiated outside of accepted legal frameworks. This situation serves to drive a wedge between the terms and conditions of employment and various labour laws (e.g., labour standards; health and safety).

Fair Wages and Unions In Construction

Under most employment circumstances, there is presumed to be an inherent power imbalance between employers and employees.[41] Consequently, there is concern that

[38] As examples, see the discussion by Armstrong and O'Grady (2004) for Canada and Belman and Voos (1995) for the United States.
[39] See Armstrong and O'Grady (2004:6-9).
[40] See Armstrong and O'Grady (2004) and O'Grady and Minsky (Part III, Section B).
[41] See Smith (1776).

labour may be "exploited" (in the sense of having to work for "below-market" wages). This is especially so in the presence of market imperfections, such as prohibitive costs to inter-regional labour mobility combined, for example, short-term employment relationships, and persistent periods of excess labour supply (high unemployment).[42] This disadvantage is compounded for workers who are sub-contractors or who are part of the underground economy. This overall worker disadvantage is thought to be the case in construction:

> The construction industry differs from most industries in the brevity of most projects, the short-lived attachment between employers and employees, and the methods used by government to contract for work. These factors combine to create fierce downward pressures on wages and benefits in public construction projects which go to the lowest bidder. As materials' costs are fairly standard for all contractors, wages are one of the few areas in which contractors can gain a competitive advantage. Unlike employees in most industries, employees in construction are seldom employed for long by a single firm. Instead they work for one firm on one project and when that is completed, seek work on another project, often with another firm. Weather and industry cycles may cause long delays between jobs. Except in periods when construction is booming, employees are not in a position to refuse a job because pay and benefits are substandard. (Belman and Voos 1995:1)

One way of redressing the power imbalance between employers and workers in the construction industry is through unionization. Where union contracts are able to regularize employment practices and norms, improve wages and benefits, and provide training, the various characteristics of the construction industry that tend to place individual workers at a bargaining disadvantage and depress wages are mitigated.

In fact, historically, construction unions in Canada have been especially successful at raising the compensation of their members.[43] Arguably, this ability to raise wages has been the result of rapid growth in the industry combined with a high level of unionization (i.e., a small degree of competition from the nonunion segment of the industry).

A turning point in construction union power – indeed, a period of that seems to have coincided with a more general ebb in union power in Canada and the United States – was experienced during the period of the 1980s. [44] This was a period during which concession bargaining was prevalent across many industries and during which construction unions in Canada, in particular, experienced a loss of power:

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[42] This assumes that the employers (firm) can compete in the product market on an equal basis with other producers. If product price is at the competitive level, technology is similar across firms, but labour costs are lower for some firms, then those firms would receive a "rent" and may be seen as "exploiting" labour.

[43] See Rose (1992) on historic trends in wages in construction and Verma and Fang (2002) for more recent estimates of the construction union wage advantage.

[44] See Rose (1992).

> … the mid-1980s were characterized by concession bargaining. The most significant bargaining outcomes included wage freezes and rollbacks, discontinuation of historical wage relationships (notably the creation of separate wage structures for industrial and commercial construction), standardization of work schedules … and reductions in or the elimination of pay provisions for time not worked… Although there was evidence of some concessionary bargaining in all of the provinces, it was most pronounced where nonunion penetration was greatest…"
> (Rose 1992: 205-206)

The ability of construction unions to raise wages has therefore been eroded in recent decades by increased competition in the sector and, more specifically, by the increasing magnitude of the nonunion segment of the industry.[45] The growing nonunion segment of the industry is increasingly characterized by nonstandard forms of employment, notably independent operators, which creates an even greater disadvantage in the employment relationship.

The policy problem is to redress the power imbalance, or the effects of the power imbalance, among *nonunionized* workers. As noted by Belman and Voos (1995:1):

> "Prevailing wage laws were developed to protect wage levels under this competitive bid system."

In general, most fair wage policies attempt to determine the fair wage by using a survey of wages (and benefits) of the jurisdiction or region, and calculating the "prevailing" wage according to some predetermined principles. For example, under the US *Davis-Bacon Act*, the prevailing wage is determined on the basis of information gathered about at least 30 percent of workers in the designated "locality."[46]

In the context of Canada, reducing pay differentials among comparable workers is addressed through the use of surveys to establish wage schedules. The construction industry has, historically, had a high level of union density.[47] This serves to weight wage surveys in favour of union wage levels. Fair wage policies in Canada therefore tend to *implicitly* address the issue of reducing pay differentials among comparable workers in construction by increasing the pay levels of nonunionized workers to more closely

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[45] See Rose (1992).

[46] Goldfarb and Morrall (1981:193) explain:

> "The word "prevailing" in the statute has been interpreted by DOL to mean the rate paid to, or work practice engaged in by, 1. the *majority* of employed workers in the given locality; or 2. in the event that there is no majority, then the greatest number, provided such greatest number constitutes 30 *percent* of those employed; or 3. in the event that the number is less than 30 percent, then the average wage rates or work practice of those employed."

[47] Source: Akyeampong (2001).

approximate that of unionized pay levels. Alternatively, one may view fair wage policies as having the effect of narrowing the pay differential across workers that is attributable to unionization *per se*.

Policy Rationale for Fair Wages in Construction

The policy rationale for fair wages in construction tends to rest on arguments that relate to both equity and efficiency. With regard to the equity rationale, on the worker side, Fair Wage policies tend to stress that wages should be "reasonable" and that employment contracts should represent "fairness." The also tend, often implicitly, to place weight on achieving some equity between the pay of union and nonunion workers. These considerations suggest the objective of preventing exploitation and, more positively, of having a role for government in acting as a "model employer." These considerations flow from some of the unique characteristics of the construction industry that may create a particularly unequal power relationship between nonunionized workers and employers.

On the efficiency side, Fair Wage policies are seen as preventing a more balanced basis for competition (by preventing competition solely on the basis of low labour costs). Consistent with this, there is concern over the quality of work supplied to public projects, which suggests that there is an underlying concern (assumption) that unfettered competition on the basis of low-cost labor will be associated with hiring lesser skilled or qualified workers, which will impact the quality of public works.

Fair Wage policies are also seen to support and encourage worker training, through apprenticeship programs. This effect arises because of the effect of Fair Wage policies in assisting in taking wages out of competition, thereby supporting unionism in the industry, and the strong apprenticeship training programs they promote. A highly trained construction workforce, in adequate supply, is seen as supporting productivity in the industry.[48]

[48] For example, see Construction Sector Council (nd:55).

In contrast to the positive connection between unions and training in construction, declining unionization is construction is seen as having a deleterious effect on training activity and productivity. The importance of training to productivity and the difficulty in providing training in construction through nonunionized employers has been highlighted by the US Business Roundtable (1982; reprinted 1990: 19):

> "Less than 10 percent of those individuals completing construction craft training programs are being trained in open shop programs, in spite of the estimate that open shop contractors now perform 60 percent of all construction work…
> If the open shop sector of construction remains at the present level without a significant increase in open shop training, there could be a long-term deterioration in the quality and productivity of the construction work force."

5. Unionization and the Impacts of Fair Wage Policies in Construction

Fair wage policies are currently in place in Canada at several jurisdictional levels, including federal, provincial, and several Canadian municipalities (e.g., Toronto). In this section, I present a model of the linkages between fair wage policies and various labour market outcomes at the level of the worker, firm or sector, respectively.

Much of the original concern over Fair Wage laws related to their potential impact on construction costs – since fair wages were expected to increase workers' wages and because labour costs usually represent a significant proportion of total production costs on construction projects.[49] In addition, there was some concern over potential effects of these laws on productivity.

But both costs and productivity are final outcomes and many factors can affect them over time. In addition, Fair Wage laws may be thought of as affecting costs and productivity indirectly – for the most part through their impact on other labour market and workplace outcomes that are, themselves, factors that affect costs or productivity. For example, Fair Wage laws may be expected to affect costs, but the effect arises because of the impacts of the laws on wages. But Fair Wage Laws can also impact health and safety outcomes, or training activity, which, in turn, can affect costs and productivity. Therefore, identifying the separate causal effect of Fair Wage laws on changes in these outcomes is expected to be empirically difficult.

The model presented in this section provides a conceptual context for considering the relationships between fair wage policies and different labour market and other economic outcomes in the construction industry. The model also provides a framework for understanding the diverse research literature that examines the impacts of Fair Wage policies on various workplace and labor market outcomes.

[49] For early studies on costs, see Fraundorf et al (1984) and O'Connell (1986), and see O'Connell (1986) and Hirsch and Rufolo (1983) on the impacts on wages.

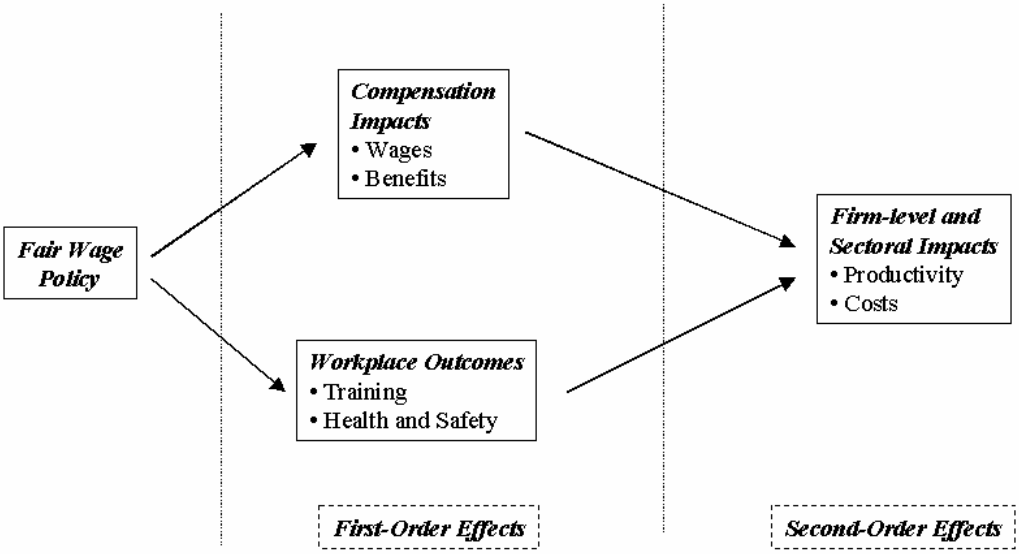
A Model of the Effects of Fair Wage Policies on Individual, Firm and Industry Outcomes

I characterize the primary potential labour market impacts of Fair Wage policies as being on compensation and workplace outcomes such as training, and health and safety. Other effects, such as those on construction costs and productivity, are expected to be longer term. The model differentiates between the expected first-order and second-order effects of Fair Wage laws (refer to Diagram 1).

The expected *first-order effects* of Fair Wage policies may be distinguished according to their pecuniary and nonpecuniary impacts. Pecuniary impacts include any effects on wages and benefits. These effects are expected to be quite direct, since law prescribes the change in wages and benefits. The workplace or nonpecuniary impacts include effects on outcomes such as training activity and health and safety. The impacts on health and safety outcomes are expected to be direct, since safety standards, too, are prescribed by law. The impact on training, as I discuss below, is expected to be much more indirect. The impact on training occurs because the laws affect the viability of unions, which are a primary institution in the construction labour market that supports training.

Changes in compensation (wages and benefits), or in training, or health and safety, are expected to potentially impact construction costs and productivity. Therefore, any effects that Fair Wage policies may have on compensation or workplace outcomes are expected to follow through to impact firm level and, therefore, industry level outcomes. The impacts on productivity and costs would be *second-order effects* of the Fair Wage policies. Since many factors can affect costs and productivity, and because the ultimate effect of Fair Wage policies on either costs or productivity occurs via the effect on intermediate outcomes such as wages, training, or safety, the independent effect of Fair Wage laws on costs and productivity are expected to be difficult to empirically identify.

Figure 1: Relationship Between Fair Wage Policies and Worker, Workplace and Sectoral Outcomes



Compensation Impacts and the Implications for Union Membership Levels

Wages

Most Fair Wage policies determine wage levels, in practice, in either of two ways. First, they may rely on wage surveys of the industry in order to set the fair wage at a level that is some percentage of the average, for example. Another approach is to set the fair wage in relation to union pay scales. Regardless of the methodology, the result is that nonunion workers wages are increased (in relation to union scales), which has the effect of increasing average wages in the industry.

Benefits

Fair Wage policies also mandate increases in benefits paid to nonunion workers, so that benefit levels of the nonunion segment of the workforce are expected to increase. As in the case of wage increases, this would tend to bring nonunion workers' benefits up closer to the level of unionized workers. To the extent that the increases in benefits are explicitly tied to union benefit levels, Fair Wage policies would be expected to increase the benefit-wage ratio in total compensation. [50] If the increase in benefits is linked to a general surveys, then it would not necessarily change the wage-benefit mix; but whether this occurs is not clearly predicted by theory and becomes an empirical matter.

Implications of Fair Wage Impacts on Compensation for Unions

In practice, average union-nonunion wage differentials in construction have been quite sizeable – in the range of 19% in the construction industry and 15% in construction occupations.[51] Fair Wage policies have the effect of mandating that the wages of nonunion workers on construction projects be raised to a level that is a higher proportion of the average union scale than the level at which they are paid in the absence of the policy. A Fair Wage policy could have the effect of setting nonunion wages at a level that is, for example, 75-80 percent of the union level; this would result in a significant increase in nonunion wages and narrowing of the union-nonunion pay differential.

A *relative* increase in nonunion wages has the effect of limiting the attractiveness of substituting nonunion labour for union workers in construction projects. This would benefit unions in two general and related ways.

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[50] In addition to increasing wages above the levels that would prevail in the absence of unionization, unions also increase benefits. Further, there is evidence that they increase the benefits-wage ratio in total compensation.

For evidence of the effect of unions on the wage-benefit mix in compensation, see Kornfeld (1993) and Freeman (1981).

[51] Source: Verma and Fang (2002:17, Chart B and Chart C).

First, raising the wages of nonunion workers (through Fair Wage laws) is consistent with unions' classic objective of reducing labour (wage)-cost based competition from nonunion employers by "taking wages out of competition."[52] From the viewpoint of wage impacts, the expected effect of this is to actually increase the bargaining power of unions by limiting substitution possibilities – as nonunion wages converge on union wage levels under the fair wage policy. One would therefore expect a positive effect on both wages and benefits over time.

A second, and related, benefit of Fair Wage policies to unions may occur in relation to union membership. Overall union density rates in Canada remain high (at over 30%), but this is seen largely as a result of the strength of unions in the broader public sector. In contrast, there has been a general decline in private sector union density rates over the past decade; for the private sector as a whole in Canada, union density was roughly only 18.7% in 2000.[53] Among private sector industries and occupations, union density is among the highest in construction, at about 32.3% overall. In the construction trades, for example, union density was 42.5%;[54] in Ontario, union density was roughly 41.6% in the construction trades.[55]

Union density has, however, generally declined in construction. In the 1970s it was approximately 60-70% but it declined thereafter to roughly 50% in the 1980s. In Ontario, union membership at first declined in the 1980s but subsequently recovered.[56] Some of the factors cited as having contributed to the decline in construction unionization include increased nonunion competition (including open/merit shop contractors), weak union organizing and, in some jurisdictions, changes in legislation changes that supported the expansion of nonunion contractors.[57]

Union wage settlements may be expected to become smaller as the proportion organized in the industry declines.[58] On the other hand, if Fair Wage policies are effective in reducing competition from low-wage construction contractors and reinforce the union objective of "taking wages out of competition," then they are likely to protect union membership levels.

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[52] "Taking wages out of competition" refers to union strategies of organizing as many workers in an industry as possible in order to limit the competition from lower-cost nonunion workers.
[53] Source: Akyeampong (2001).
[54] Here union density is defined as the proportion of workers covered by collective agreements.
[55] Source: Akyeampong (2001).
[56] Source: Rose (1992: 198).
[57] Source: Rose (1992:193-196).
[58] The threat of substitution, especially if credible, is expected to reduce union wage demands in collective bargaining. This would occur because in construction labour costs are a large proportion of total costs of production; therefore, the larger the union-nonunion wage differential, and the larger the nonunion segment of the industry and the greater the ease of substitution to nonunion production, the greater the constraint on union wage demands.

Finally, another means by which Fair Wage policies could have a positive impact on unionization levels is indirectly through their effect on the labour costs incurred by nonunion contractors. A Fair Wage policy would be expected to have two separate, but mutually reinforcing effects on labour costs.

First, a Fair Wage policy would increase the labour costs of nonunion contractors directly by requiring that the wage that construction workers be higher than it would be in the absence of the policy. In the short run, it is unlikely that an employer would find ways of reducing the wage bill (e.g., through substitution).

Second, Fair Wage policies would they have an indirect affect on labour costs, that worked through the expected effect of the policies on the representation of dependent workers (i.e., employees) as "independent operators." Discouraging or reducing the ability of nonunion employers to engage in these practices would also serve to increase the wage bill.

Taken together, these two effects would both be expected to increase the labour costs of nonunion employers. This could serve to discourage, at least on the margin, such nonunion employers from bidding on public sector projects. This would have an indirect but positive effect on unionization by reducing the degree of labour (wage)-cost based competition from nonunion employers in public sector construction work.

In summary, Fair Wage policies mandate increases in the wages of nonunion workers (employed through contractors and subcontractors), and one may expect wage levels of that segment of the workforce to increase, at least in the short term. In practice, fair wage policies tend also to bring nonunion workers' wages up to some percentage of the level of union wages, thus narrowing the union-nonunion wage differential. For unions, the expected effect of this is to provide them with greater ability to raise wages and/or protect membership levels.

Workplace Outcomes: Training and Health and Safety

Health and Safety

Fair wage policies are also expected to have an impact on workplace-related outcomes including health safety. The effect on health and safety outcomes is expected to be a direct one, insofar as Fair Wage policies require that contractors adhere to provincial (federal) occupational health and safety legislation regulations. If there were a consistent union-nonunion health and safety differential, then the policy would operate to narrow the gap.

Empirical evidence on the impact of unions on health and safety outcomes is quite limited. It is not evident, however, whether or not unionization is necessarily associated with lower accident rates (or better health outcomes). On the one hand, high accident rates (poor safety) may be a motivation for unionizing, so that unions would be associated with higher accident rates; on the other hand, unions may successfully negotiate better health and safety outcomes.[59] Therefore, while unions may attempt to improve health and safety, they appear to do so in the context of workplaces that have higher accident rates.

There is some descriptive evidence for Canada, however, that accident rates are lower in some construction trades.[60] This result is consistent with union emphasis on safety as a bargaining objective, the union's role in monitoring workplaces for compliance with safety standards and regulations, and the union emphasis on training, including training related to health and safety.

Training Effects

Unions are expected to affect training activity at each of the levels of the individual worker, the firm, and the industry. With regard to workers, evidence of the impact of unions on training outcomes is somewhat mixed, with some early evidence finding no effect, whereas several more recent studies suggest a positive effect.[61] Recent Canadian evidence based on the *Adult Education and Training Survey* suggests that unionization has no effect on training;[62] a study based on the *Workplace and Employee Survey* finds a positive effect on training, although the probability of a worker being trained varies across types of workplace training.[63]

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[59] If unionized work settings tend to be associated with higher accident rates, then higher wages in unionized settings may be a compensating differential for the higher likelihood of experiencing an injury. See Duncan and Stafford (1980).
[60] See O'Grady and Minsky (1999: Part Three, Section A, Graphs 3-5).
[61] For earlier studies see Brown (1990) and Simpson (1984). Green at al (1999) and Tan et al (1999) provide more recent international evidence.
[62] See Green and Lemieux (2001).
[63] See Chaykowski and Slotsve (2003).

At the establishment level, unions typically negotiate contract clauses related to training, including access to training and the types of training required in certain jobs (e.g., safety training).[64] These clauses may have an effect on who receives training, training duration, and the aggregate level of training activity at the workplace. Other recent Canadian evidence suggests that unions can have an effect on the proportion of workers trained in an establishment.[65]

Aside from a potentially direct effect on training through the workplace, unions can also have an impact in the broader industry by supporting training programs (e.g., apprenticeship). In Canada, unions also influence training activity through their strategic partnerships with management in sector councils. The industry-wide effects would be expected to have the effect of increasing overall training activity at the establishment or work site level.

In construction, unions have traditionally played a central role in providing training.[66] One of the main vehicles by which they directly contribute to training is through joint union-management Training Trust Funds that own and operate training centres.[67] These trusts, which are set up to support occupational training activities, are typically funded through employer contributions that are negotiated with the unions. These trusts provide a substantial proportion of total training activity in the unionized segment of the construction labour force.[68]

Construction unions typically negotiate training funds into their contracts, and training programs are usually operated jointly with management.[69] This approach has the benefits of providing a sizeable pool of training investment funds, of lowering the costs spreading the costs of training across participants and of reducing the risk associated with training investments (particularly the classic problems associated with employers "poaching" workers trained by other firms).[70]

Fair Wage policies are expected to have an indirect effect on training outcomes through their effect on unions. As noted above, Fair Wage policies can function to support unions in the construction industry, both by, in effect, assisting unions in reducing the low-wage, low-cost, threat posed by nonunion employers (i.e., by "taking wages out of competition"), as well as by supporting membership levels. To the extent that unions in

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[64] See Chaykowski and Lewis (1994) and Gervais (2002).
[65] See Chaykowski and Slotsve (2003).
[66] Other major providers and/or sources of financial support for training include workers' compensation boards and safety associations, community colleges, and governments; training is also provided by private trainers and suppliers; see Construction Sector Counsel (nd: 9-22).
[67] See O'Grady (2005).
[68] O'Grady (2005:26) reports that, in 2001-02:

> "Somewhat over 25% of unionized construction workers received training in 2001-02 trough union training centres."

[69] See Construction Sector Counsel (nd:17) and The Business Roundtable (1982; reprinted 1990).
[70] See, for example the discussion in The Business Roundtable (1982; reprinted 1990).

construction have a positive effect on worker training, through apprenticeship programs, the result is expected to be a positive effect of Fair Wage policies on training. However, this effect is one that is expected to occur over the medium to longer term.

Firm-level and Industry Impacts

Any effects of Fair Wage policies on firm outcomes, or on industry outcomes, are second-order effects in the sense that they arise as a consequence of the direct effects of Fair Wage policies on compensation or workplace outcomes. The impacts on wages, benefits, health and safety and training results, in turn, in impacts on broader outcomes. The two broad outcomes of interest are costs and productivity. These lines of causality are presented in Figure 1.

Costs

As described above, Fair Wage policies are expected to have a direct impact on wages in the industry. Since construction is labour intensive, labour costs comprise a large proportion of total costs of production.[71] Therefore the increase in wage costs is expected to increase the total costs of production. This result would have the effect of placing firms subject to the Fair Wage laws at a competitive disadvantage.

In the long term, however, several types of employer adjustments could occur that would mitigate the impact of the (mandated) wage increases. These adjustments could occur through either labour relations or through production systems.

From an industrial relations viewpoint, further adjustments may occur through collective bargaining. Employers could, for example, react by seeking to modify work rules in order to increase productivity. However, since construction is highly competitive, it is likely that there are ongoing pressures to obtain such efficiencies, regardless of the presence or absence of Fair Wage policies.

Alternatively, employers could "negotiate harder" with unions to keep union wage increases (hence nonunion contractors' employees' wages) lower than otherwise. The ability of employers to moderate wage increases depends upon the bargaining power of unions. While unions have been in decline, union density remains relatively high in construction. Additionally, Fair Wage policies are expected to strengthen unions by, in effect, reducing nonunion competition on the basis of wages. At a minimum, unless unions in construction experience serious declines in membership, average wage increases (across unionized and nonunionized workers) would be expected to remain significant.

If wages do increase, then we expect employers to react to the higher cost of labour. We generally consider two broad classes of inputs into a production process (labour and capital). If the price of labour services (i.e., the wage rate) increases, then from theory we expect a scale and substitution effect to occur.[72] The scale effect suggests that increases

[71] Other major costs include materials and capital (equipment).

[72] Refer to Ehrenberg, Smith and Chaykowski (2004: 44) for a basic exposition of the effects of wage changes. This discussion assumes no changes in the technology of production, constant capital prices, and no change in the association between the price of the product and its demand.

in the cost of the labour input will lead to higher product prices, hence lower demand for the product and, eventually, lower demand for labour. One would expect a strong scale effect in the case of construction.

The increase in wages, other prices held constant, means that the price of labour services has increased relative to capital. The substitution effect refers to the incentive for employers to shift away from the now relatively more expensive labour input towards the use of capital – again suggesting a decline in labour usage.

The combined result is that we would expect the increase in wages to result in increased costs in the short term and that, over the longer term, the employment of labour would decline. In the long run, the total cost of production may increase or remain roughly the same as before the wage increase; the extent to which total costs actually increase as a result of wage increases may depend largely on the degree of input factor substitution that occurs. There are, however, other potential direct impacts of fair Wage policies on costs. A decrease in accident rates would be expected to decrease a variety of costs over both the short term (e.g., cost of replacement workers) and long term (workers' compensation). The magnitude of the net effect of Fair Wage Laws on construction costs is an empirical issue.

Finally, there may be other sources of *indirect* costs that need to be considered. One source of increase in costs, in the *absence* of a Fair Wage policy, may be related to losses to government arising from the avoidance of payroll costs.[73] In the construction industry, the practice of sub-contracting means that the contractor does not have to pay payroll taxes because the workers performing the work are not "employees" in the formal sense.[74] Avoidance of payroll taxes can take the form of utilizing dependent contractors but representing them to the government as "independent operators."[75] When this occurs, the employer illegally avoids paying various payroll taxes, which would result in losses to the government of payroll tax revenue.

The effect of a Fair Wage policy is to enforce the payment of prevailing wages and benefits, enforcing health and safety standards, as well as compliance with other employment standards. In effect, a Fair Wage policy would be expected to have the effect of exerting pressure on contractors to treat sub-contractors who are dependent as dependent contractors. This would also be expected to decrease the extent of avoidance (i.e., the extent of "underground" employment in construction), thereby increasing government payroll tax revenue.

[73] See Armstrong and O'Grady (2004).
[74] A key "test" is whether or not the person performing the work is "independent" of the contractor.
[75] See Armstrong and O'Grady (2004:42).

Productivity

According to the model of the impact of Fair Wage policies on outcomes, productivity is affected by means of its impacts on compensation and workplace outcomes. The main effects include:

- The expected impact of Fair Wage policies on health and safety outcomes is positive. Lower accident rates are expected to result in higher productivity.

- The expected effect on training levels is positive. A highly skilled construction workforce is seen as supporting productivity in the industry.

- Higher wages may be associated with greater work effort, lower absenteeism and lower unwanted turnover; each of these effects would positively impact productivity.

- Any reduction in labour usage resulting from increased wages, and any shift toward increased capital utilization may be expected to increase productivity.

In addition to potential productivity increases arising from the substitution of capital for labour, there are other potential types of substitution effects that could have a positive impact on productivity. One type relates to substitution across skill categories of labour; and another relates to the use of pre-fabricated materials.[76]

All else being equal, wage increases (arising, for example, from a Fair Wage policy) among one category of worker (defined by skill level, for example), would create an incentive for management to substitute towards other factors of production, that are now relatively less expensive, all else being equal.[77] There are two substitution possibilities, including substitution towards capital (considered above) as well as substitution towards other types of labour inputs.

In the context of construction, work organization among unionized contractors is typically characterized by the use of more highly skilled workers (e.g., high proportion of skilled trades, including journeymen), whereas among nonunion contractors, work organization is typified by the use of a relatively higher proportion of semi-skilled

[76] There is also a third source of potential productivity increase. This relates to incentives to improve managerial/supervisory efficiency. It is possible, for example, that increased labour costs and increased requirements on employers (e.g., to enforce health and safety regulations), which arise from Fair Wage policies, would serve to induce employers to achieve greater management efficiencies.

[77] In general, when the price of one factor increases, we expect two effects: a scale effect and a substitution effect. I focus here on the substitution effect. Note, however, that the *net* effect of a change in the price of labour services (i.e., the wage rate) is determined as a result of both of these effects. In general, the scale effect leads to higher labour costs, all else being equal.

workers and helpers.[78] All else being equal, we would expect a (mandated) increase in the wages paid to (less skilled) construction workers employed by open shop contractors to create incentives for the open shop contractors to substitute away from this now relatively more expensive factor input.

One possibility is that, since skilled construction workers are substitutes for the less skilled, contractors who face paying higher wages for unskilled labor will choose to substitute towards skilled workers. If the substitution effect is broad-based within the sector, because of a Fair Wage policy, it could yield an increased reliance on more highly skilled construction workers throughout the sector.

One improvement in construction methods is the use of prefabricated materials, which is generally expected to in crease construction efficiency and reduces costs. Prefabrication, by definition, is potentially labour saving because it can take advantage of economies of scale in production because the output is either more standardized or it can be produced using dedicated equipment (e.g., trusses).[79]

As noted above, all else being equal, we would expect a (mandated) increase in the wages paid to (less skilled) construction workers employed by open shop contractors to create incentives for the open shop contractors to substitute away from this now relatively more expensive factor input. Contractors who face paying higher wages may choose to substitute towards the use of prefabricated components that require fewer labour inputs to produce and that yields productivity gains.

In sum, I therefore expect that the effects of Fair Wage policies on training, health and safety outcomes, wages and capital utilization, taken together, on productivity to be unambiguously positive. As with the case of costs, the magnitude of any net effects on productivity is a question that is only informed by empirical analysis of these effects. I also expect that the effects on productivity would most likely be long run. This would be the case because the impacts in each area would be expected to occur over the medium to long term.

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[78] See Bourdon and Levitt (1980:48-49); nonunion contractors tend to employ more supervisors since the less skilled are less independent workers – hence there is a difference in work organization between union and open shop contractors.

[79] One key issue is whether or not unionization is associated with restrictions on union contractors' use of prefabricated materials (motivated for example, by unions' desire to protect employment levels); evidence on this issue suggests that unions do not restrict their use. In a comprehensive analysis of union work rules, Allen (1986: 239) concludes:

> "… the direct evidence on prefabrication is fully consistent with the indirect evidence on elasticities of substitution between labour and materials. Both sets of evidence indicate no restrictive effect of union work rules on the choice of materials or the usage of prefabricated materials."

Net Impacts of Fair Wage Laws

The cost and productivity outcomes arising from fair wage policies are not unrelated. Any positive effects of Fair Wage laws on costs could be mitigated by positive impacts on productivity. Part of the concern arises, however, because cost impacts are expected to be short run, immediate impacts, whereas productivity effects are expected to be longer run outcomes. In a highly competitive industry, some firms may not survive to benefit from the increased productivity.

6. Comparative Review of Contemporary Canadian Fair Wage Polices In Construction

Fair wage policies currently exist across Canada at all levels of government. This section examines, from a comparative perspective, the existing federal, provincial and municipal policies as well as major legislation in British Columbia that was recently repealed.

The main aspects of fair wage policies that are considered include: their stated purpose or rationale; the definition of "fair wage," the scope of coverage of the law (e.g., value and segment of the industry covered); the coverage of employment conditions (including wages, benefits, and health and safety standards, etc.); the wage schedules; and enforcement of the laws. In what follows, each of these dimensions is considered in turn. A complete summary of the structure of fair wage policies at the federal and provincial levels is presented in Table 1, Panel A; a summary of the characteristics of the city or municipal fair wage policies is presented in Table 1, Panel B.

Federal and Provincial Laws

The most comprehensive Fair Wage law is in effect in the federal jurisdiction. The federal *Fair Wages and Hours of Labour Act* is specifically dedicated to fair wages (and hours). The Province of BC had enacted a comprehensive fair wage law in 1992 (*Skills Development and Fair Wage Act*, Bill 37), but the legislation was repealed in 1992. Other provinces that address fair wages are Manitoba and New Brunswick. Both of these provinces promote fair wages through other general wage and employment legislation. Ontario's Fair Wage policy consisted of the promulgation of fair wage regulations, and wage schedules that covered both urban as well as rural areas.[80] Instead of being enacted through legislation, the Fair Wage regulations and wage schedules are given effect through an Order-in-Council.

The laws typically present a stated purpose, which suggest an underlying policy objective or motivation. The purposes of the policies tend to be the achievement of fair wages and the advancement of training in the construction workforce. Only the federal legislation provides a formal definition of "fair wages"; this definition is essentially reflective of the definition used in the US Davis-Bacon legislation.[81]

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[80] See Armstrong and O'Grady (2004:109-110).

[81] The Canadian federal definition is: "…such wages as are generally accepted as current for competent workmen in the district in which the work is being performed for the character or class of work in which those workmen are respectively engaged…"
The US Davis-Bacon legislation requires that the wages paid be (Goldfarb and Morrall (1981:192, 193, fn 5)):

> "Specifically, the act requires that the specifications for "even contract in excess of 52,000 to which the United States . . . is a party for construction, alteration and/or repair" shall state that the minimum wages and, since 1964, fringe benefits to be paid shall be those "determined by the Secretary of Labor

The industrial scope or coverage of the federal and BC legislation was complete, covering the entire construction sector. The coverage of the New Brunswick legislation is also quite complete, as it includes buildings, roads and bridges. The Ontario regulations also include includes buildings, roads and bridges. The Manitoba legislation is more limited in that it is focused on ICI (buildings) construction.

The content of the legislation is also most comprehensive in the cases of the federal and BC legislation. In these two jurisdictions, the laws cover all contractors and subcontractors. The New Brunswick law covers contract employees. The coverage of employment conditions is most comprehensive in the federal legislation, including wages, hours, and overtime and providing for nondiscrimination. Wages, hours and overtime are essentially covered in the other jurisdictions. But the BC legislation was unique in that it explicitly included a provision specifying that apprenticeship was required under the law. Most of the laws rely on some form of a wage schedule to determine the wages; and obtaining current schedules (through current surveys of wages) is generally recognized as an ongoing issue.

Finally, most of the legislation provides for enforcement. Enforcement in the more comprehensive federal and BC legislation takes the form of requiring bookkeeping of employees, posting of employees rights to fair wages, benefits etc. in order to ensure that employees are aware of their rights and recourse, and punitive enforcement in the case of a violation of the law. Violators are subject to fines and/or the withholding of monies payable under a contract until the violation has been rectified (e.g., the payment of owed wages to workers).

BCs Bill 37 was unique because of its strong emphasis on the development of apprenticeship training; the Act was therefore as much about ensuring fair wages as it was about skills development in the construction industry. In Ontario, the Fair Wage policy has been significantly weakened because the wage schedules are no longer updated; the most recent available schedule dates backs decade.[82] With the repeal of the BC Bill 37 and the erosion of the Ontario policy, the most comprehensive and targeted fair wage law remaining is the federal *Fair Wages and Hours of Labour Act*.

City and Municipal Fair Wage Laws

Most cities or municipalities across Canada do not have a formal Fair Wage policy. There appears to be fewer than ten major cities with a formal Fair Wage policy; of these, most of the cities are in Ontario. The most comprehensive policy exists for Toronto, although the policies for Hamilton, London, Oshawa and Thunder Bay are also comprehensive.

> to be prevailing for the corresponding classes of laborers and mechanics employed on projects of a character similar to the contract work in the city, town, village or other civil subdivision of the State wherein the work is to be performed. . . ." 40 USC 276(a), as amended."

[82] The last update of wage schedules was in 1995.

These cities all have a formal Fair Wage Policy that exists, for example under the Municipal Code (e.g., Toronto); other cities have by-laws that provide that fair wages be paid on contracts (e.g., Kitchener; Kawartha Lakes; New Westminster).

Among these cities, only Toronto has a formal statement of purpose that motivates and describes the intent of the Fair Wage policy. Toronto's policy explicitly indicates that the purposes of the Policy are to establish wages that are fair, to ensure that Toronto acts a model employer, to ensure quality outputs, and to promote harmonious labour-management relations, including compromising between the wage scales of unionized and nonunionized workers. The remaining cities are formally silent on the intent of their Fair Wage policies.

The various cities do define the determination of fair wages, usually in relation to a Fair Wage Schedule. Fair Wage Schedules tend to be determined on the basis of wage surveys. But several major cities, including Toronto and Oshawa, reference union wage scales in the industry; and Hamilton appears to informally benchmark against union rates. Therefore fair wages are determined in relation to union pay levels either somewhat directly or indirectly through wag surveys that include union rates of pay.

The Fair Wage policies in major cities all have a broad scope, typically including all contracts in the industry. In several cases (e.g., Hamilton, Kitchener, and Thunder Bay) a minimum contract value is stipulated. There is some variance across cities in the types of employment conditions covered by the policies, although most of the cities cover wages, benefits, and hours and, in some cases, overtime. Toronto explicitly covers health and safety and nondiscrimination; London and Kitchener include "working conditions"; whereas Oshawa and Kawartha Lakes only specify wages, and wages and hours, respectively. Toronto has the most comprehensive set of employment conditions (explicitly) covered by its Fair Wage law.

One of the key elements of Fair Wage policies is enforcement. Most, but not all, of the cities explicitly provide for enforcement. As in the cases of the federal and provincial policies, the cities that tend to explicitly provide for enforcement include withholding of funds (on a contract) or levying fees to cover any non-compliance differential with the fair wage. Other enforcement penalties include charging inspection fees and, in the case of repeat violations, suspension of the right to bid for up to two years. Other mechanisms for enforcement include requirements to maintain records, provision for complaints to be investigated, and a requirement that the requirements of the Fair Wage laws be posted in the work setting.

Table 1: The Structure of Fair Wage Policies in Canada
Panel A: Federal and Provincial Jurisdictions

	Law	Purpose	Fair Wage Definition	Industrial Scope	Contracting Scope	Employment Conditions Coverage	Wage Schedules	Enforcement
Federal								
Federal Government	Fair Wages and Hours of Labour Act	Ensure payment of "Wages that are fair and reasonable."	"…such wages as are generally accepted as current for competent workmen in the district in which the work is being performed for the character or class of work in which those workmen are respectively engaged…"	All construction contracts	Contractors Subcontractors	Wages; Minimum is min. wage Hours (day & week); Overtime (1.5); Nondiscrimination;	Follow provincial rate; Follow schedules based on Stat Can;	Posting Bookkeeping Withholding of monies under the contract
Provincial								
British Col.	Bill 37 (1994) (repealed)	To ensure: Skill development/training; High quality standards; Fair wages	Wages and benefits defined by the regulations	All construction contracts	Contractors Subcontractors	Wages Benefits Apprenticeship required	Fair Wage Schedule	Posting Bookkeeping Fine of $10,000
Manitoba	Construction Industry Wages Act	Advancement of skills and supply of skilled workers; Fair wages		ICI construction and major projects		Wages Hours Overtime	Wage Schedule	Claims are paid from monies withheld under the contract; Fines plus costs;
New Brunswick	Employment Standards Act Regulation 90-149			Building, road and bridge construction	Contract employees	Wages Hours Overtime		
Ontario	Order-in-Council			Building, road and bridge construction (> $100,000)			Wage Schedule [Rural based on survey; urban based on union wage scales]	

Table 1: The Structure of Fair Wage Policies in Canada
Panel B: City/Municipal Jurisdictions

	Law	Purpose	Fair Wage Definition	Industrial Scope	Contracting Scope	Employment Conditions Coverage	Wage Schedules	Enforcement
Toronto	Fair Wage Policy (under Municipal Code)	" To produce stable labour relations with minimal disruption. (2) To compromise between the wage differentials of organized and unorganized labour. (3) To create a level playing field in competitions for City work. (4) To protect the public; and (5) To enhance the reputation of the City for ethical and fair business dealings."	"… hourly rate, vacation and holiday pay and any applicable amount for fringe benefits shown in the current Fair Wage Schedule…" Includes relevant union rate or, where none, then the district prevailing wage;	All contracts	Contractor Subcontractor Owner-operators exempt	Wages Benefits Hours Health and Safety Non-discrimination	Fair Wage Schedule	Failure to pay workers then City "…may charge an administrative fee not in excess of fifteen percent of the balance necessary to make up the amount that should have been paid … and may pay the worker(s) directly for any back-wages owing …" Repeat noncompliance is subject to up to 2 years bid suspension
Hamilton	Fair Wage Policy		"…wages, benefits and hours of work … in accordance with the Fair Wage Policy and the Fair Wage Schedule…"	All construction contracts of > $100,000	Contractor Subcontractor	Wages Benefits Hours Overtime	Fair Wage Schedule	Posting Records Complaints Levee of inspection/audit costs "…withhold the amount of funds by which the contractor or sub-contractor has been determined to be in non-compliance from any payment owed by the City to the Contractor …" Repeat noncompliance is subject to up to 2 years bid suspension

London	Fair Wage Policy		"each worker shall be paid at a rate which equals or exceeds the prevailing rate applicable… under the provincial "Fair Wage Policy", detailed in the Fair Wage Schedules…"	All construction contracts	Contractor Subcontractor	Wages Benefits Working conditions	Fair Wage Schedule	Records Complaints City may pay employees wages deemed owed but not paid and recover compensation payments plus costs (e.g., adjudication) as a debt owed by the contractor
Oshawa	Fair Wage Policy		"…minimum union rate of wages for employees of such class prevailing in Oshawa…"	All construction contracts		Wages	"…if there is no applicable union rate, the prevailing rate of wages in Oshawa for employees of such class…"	"…withhold adequate funds from the amounts owing to the General Contractor under the Contract to cover the deficiencies and may pay same directly to the affected workers or subcontractors …"
Kitchener	Bylaw		"…pay wages and provide hours and working conditions not less favourable to the workers employed on the contract than the then current fair wages schedule of the Ontario Ministry of Labour as modified or approved by the Ontario Ministry of Transportation. "	Roads Contracts > $115,000		Wages Hours Working Conditions		
Kawartha Lakes	Tender Terms and Conditions				Contractors Subcontractors	Wages Hours	Fair Wage Schedule of Province of Ontario	

Thunder Bay	Fair Wage Policy			ICI (Industrial Commercial Institutional) construction' Contracts > $100,000	Contractors Subcontractors Owner-operators exempt	Wages Benefits Hours	Fair Wage Schedule	Posting Bookkeeping Complaint Based (with fee of $1687.50; refunded if complaint is upheld); Levee of inspection/audit fee of $1687.50 "…withhold an amount of funds equal to the amount by which the Contractor or Sub-contractor has been benefited from its non-compliance, from any payment owed by the City to the Contractor …" Repeat noncompliance is subject to up to 2 years bid suspension
New Westmin.	Purchasing and Tendering Bylaw		"…paid the wages and remuneration that are generally current in each trade for comparable, qualified workers in the City …"	All major construction contracts	Contractors Subcontractors	Wages		Disputeds over current wages adjudicated by Minister of labour

7. Assay of the Main Results and Conclusions of the Empirical Research Literature on the Impacts of Fair Wage Policies

Based upon secondary research sources, this section critically examines the available extant evidence on the impact of fair wage policies on labour market outcomes. The review of the research evidence is organized according to the outcomes identified in the model of the effects of fair wage policies on individual, firm and industry outcomes (refer to section 5 above).

Fair Wage Laws and Wage and Benefit Outcomes

The research studies on the impact of Fair Wage policies (referred to as prevailing wage laws in the United States) on wage and benefits are from the United States. A summary of the main characteristics and results of the studies that examine the impact of Fair Wage policies on wages and benefits is presented in Table2 and in Table 3, respectively.

Each of the three studies (Kessler and Katz 2001; Philips 1998; and Philips et al 1995) that examine the impacts of prevailing wage laws on wages do so by considering the impact of a repeal of several state laws on wages in the construction industry in those states. They consider changes wages over time, particularly whether or not wages in the period after repeal are similar or different than during the period prior to the repeal. Although utilizing somewhat different methodologies, the studies all find that repeal of prevailing wage laws is associated with lower wages in the post-repeal period.

Two of the studies (Peterson and Gotland (2005; Peterson 2000) that examine the impact of prevailing wages on benefit levels focus on the construction industry across states with and without the laws and consider impacts on wages, benefits and total compensation. They tend to find that prevailing wage laws are associated with higher wages and benefits, but that the effect of benefits is much greater than on wages. The result is that prevailing wage laws are found to be associated with a tilting of the compensation package in favour of benefits. A third study (Philips 1998) that examines trends in employer contributions to major benefits, including pensions and health insurance, in Kansas prior to and following the repeal of the state's prevailing wage law. They find that the repeal is associated with lower employer contributions.

Taken together, the evidence on the impacts of prevailing wage laws on wages and benefits of construction workers indicates that prevailing wage laws are associated with higher employee wages and benefits. The results are consistent across studies using different data sources and methodologies.

Fair Wage Laws and Training Activity

While several of the studies that consider the relationship between fair wage policies and training activity focus on the construction industry across states with and without the policies, most focus on a single jurisdiction. (Refer to Table 4.) The two major studies that examine this relationship across US jurisdictions, using statistical analysis, yield consistent results: one the one hand, Bilginsoy (2005) finds that prevailing wage laws are associated with higher apprenticeship activity (in terms of registrations and completions; Philips et al (1995), in examining the effect of the repeal of state prevailing wage laws, finds that state repeal of these laws is associated with lower training rates.

The studies of individual jurisdictions focus on the impact of the repeal of fair wage laws on training outcomes. The American studies, which focus on the repeals that occurred in Utah and Kansas, tend to rely on descriptive analyses of training outcomes before and after the repeals; they tend to find that repeal is associated with decreased apprenticeship training. This result is largely a consequence of the apparent negative impact of repeal on unions, which are associated with the majority of apprenticeship training activity. Holmes (1997) provides a statistical analysis of the impact of the repeal of British Columbia's fair wage law on the probability of completing training, and finds essentially no effect.

The evidence on the potential effects of fair wage laws on training outcomes is derived from a combination of descriptive and statistical analyses. The descriptive analyses are more suggestive of a positive relationship between prevailing wage laws and apprenticeship training. The strongest empirical evidence is produced by the statistical analyses, for which the evidence is mixed. The evidence for British Columbia suggests no significant impact on training; in contrast the evidence for the United States suggests prevailing wage laws are associated with more training.

The weight of the evidence, taken together, suggests that fair wage laws are likely positively associated with training. The impact, if any, of fair wage laws on training activity is expected to occur because fair wage laws are expected to support unions and union membership – and unions are, in turn, associated with a high level of apprenticeship training activity. But the impact of fair wage laws on unions is difficult to isolate empirically, and unions may have a variety of impacts on training activity – although the impact of *construction* unions on training is expected to be strongly positive.[83] Since the line of causality between fair wage laws and training operates through their effect on unions, it is not surprising that the empirical results are somewhat ambiguous.

[83] An institutional consideration that supports this observation is that construction unions directly impact training outcomes because they tend to formally negotiate employer contributions to training activity (Construction Sector Council nd). In addition, construction unions support training through extensive training trust funds (see O'Grady 2005).

Fair Wage Laws and Health and Safety Outcomes

Studies of the effects of fair wage laws on health and safety outcomes focus on the impacts on injury rates. (Refer to Table 5) The available evidence pertains to the United States and, as with studies of the various other impacts of prevailing wage laws, tend to consider analyze either the effect of the presence or absence of the law or the effect of the repeal of the law. Two studies consider the effects across states and over time. Azari-Rad (2005) examines the effects of prevailing wage laws on injury rates and lost time due to injuries among states with and without prevailing wage laws. He finds that prevailing wage laws are associated with lower injury rates. Consistent with this result are the findings of Philips et al (1995) who analyze the effect of repeals of prevailing wage laws on injury rates across states and over time. They find that the repeal of the laws is associated with an increase in both accident rates and lost time due to injuries.

Two other studies examine prevailing wage laws in particular states. Philips (1999) examines the effects of Kentucky's exemption of school construction from its prevailing wage law in 1982 and finds that injury rates are higher in the post-exemption period. Philips (1998), who considers the effect of the repeal of the prevailing wage law in Kansas in 1987 on injury rates, finds similar results. In the post repeal period, the injury rate and the lost-day injuries were both higher.

The results from these American studies consistently point to a positive association between prevailing wage laws and lower accident rates. However, the magnitude of any impact is difficult to determine empirically.

Fair Wage Laws and Construction Costs

One of the earliest criticisms of fair (prevailing) wage laws was that they were expected to lead to higher construction costs. In the United States, for example, the federal prevailing wage law (Davis-Bacon) and numerous state laws have been in effect for over half a century. Some critics of these laws have suggested that repealing the prevailing wage laws would result in considerable cost savings for governments. This policy debate was one motivation for the line of research that has examined the relationship between fair wage laws and construction costs.

The US studies have tended to use a variety of descriptive and analytical methodologies and data sets. [84] (Refer to Table 6.) Several of the major studies have concentrated on nonresidential, residential, and highway or building construction. Among these are some of the key earlier studies that found quite significantly higher construction costs associated with prevailing wage laws (Fraundorf, Farrell and Mason 1983; Allen 1983). A number of the recent US studies on the impacts of prevailing wage laws on costs have focused on school construction (see Azari-Rad 2003; Philips 1999; Philips 1998). These studies have tended to find evidence of much less difference in costs arising from prevailing wages. In addition, a recent study on federal construction costs finds relatively modest differences.

There are few Canadian studies of the effects of fair wage laws on costs. The available studies all focus on British Columbia; one focuses on the private-public cost differential and the impact of the BC Fair Wage law on this differential; the two other studies examine construction costs in the school sector. (Refer to Table 7.) All of the studies consider the impact of the Fair Wage law by examining costs prior to the introduction of the law as well as after it was repealed. The evidence is mixed, but suggests that, on balance, the BC Fair Wage law was associated with either no or a modest impact on costs.

Despite the wide variation in cost estimates across studies, ranging from around zero to roughly 25%, the recent evidence for the US suggests that costs are higher under prevailing wage laws, but the estimates suggest that the levels are much smaller than suggested by the results of the earlier generation of studies. The evidence for Canada suggests either no impact on costs or that the impact, if positive, is small. That costs are higher is not a surprising result, given that the impact on wages was estimated to be positive.

In construction, another potentially significant cost to government and, hence, to society, was expected to arise when employers utilize dependent contractors but only disclose them as "independent operators" in order to evade payroll and other taxes. [85] Independent operators would be classified as the self-employed, so that if the extent of this problem has

[84] Of course, one of the difficulties in comparing the costs of construction projects is that the cost of each project can be impacted by the presence of unique construction conditions (e.g., weather, or ground conditions) and inputs (e.g., alternative materials), as well as by differences in outputs that are difficult to measure or that are unobservable, *ex post* (e.g., no two roads are exactly alike). These considerations make cost comparisons, or analyses of cost differences, difficult. An important empirical issue, then, is whether or not these differences are random.

[85] See Armstrong and O'Grady (2004:42).

been growing in construction, it would manifest itself as a growth in "own-account" self-employment in the industry.

In Ontario, for example, there has been a significant increase over the past two decades in self-employed workers as a proportion of all construction workers. The increase in self-employment, though, has largely occurred among own-account self-employed (i.e., self-employed workers who have no employees), most of who are also unincorporated.[86] In the late 1980s, the own-account self-employed constituted only about 10-12% of all (employed) workers in construction, whereas by the 2000-2004 period, the proportion had almost doubled to just over 20%.[87] One set of estimates places the labour cost avoidance in the range of 20-34% of payroll, depending on the trade.[88]

Of course, the magnitude of the payroll tax revenue that is lost to government depends upon the numbers of own-account self-employed workers who are, in actuality, dependent contractors. While measurement of this number is (understandably) not available, one recent analysis of this issue in Ontario suggests that it is likely that most of this increase is attributable to the growth in the underground economy.[89]

[86] Source: Armstrong and O'Grady (2004:44).
[87] Source: Armstrong and O'Grady (2004:44, Figure No. 3-3).
[88] Source: Armstrong and O'Grady (2004: 43, Figure No. 3-2). Estimates were calculated using 2004 tax rates.
[89] See Armstrong and O'Grady (2004:45).

Fair Wage Laws and Productivity

While there has been considerable research focus on the potential cost impacts of these laws, there has been less research directly on the productivity dimension. This lack of research on the productivity dimension is likely because it is very difficult to test *directly* for the effect of fair wage laws on productivity.

In order to consider the potential impact of fair wage laws on productivity, we must impute the effect on the basis of the effect of these laws on other outcomes and institutions that, in turn, have an effect on productivity. These intermediate outcomes and factors include compensation (i.e., wages; benefits), training, and health and safety outcomes. The empirical evidence on the impacts of fair (prevailing) wage laws suggest a positive impact on safety (i.e., lower injury rates), and likely a positive impact on training outcomes; both of these effects are expected to have a positive effect on productivity, even if only in the long run. Positive effects on compensation may also have positive effects on productivity.[90]

A second route by which fair wage laws can affect unions is through their impact on the strength and viability of unions. Several American studies have emphasized the point that the repeal of prevailing wage laws served to weaken unions in those states. To the extent that unions are associated with higher productivity, and that prevailing wage laws support unionism, then prevailing wage laws operate to support productivity.[91] Here, too, the expected effects would be over the longer term.

The effects of fair wage laws on workplace outcomes that positively affect productivity, and the effects on productivity operating through unions, are therefore mutually reinforcing, so that one would expect a positive net effect. There is, however, no direct evidence of any effect of fair wage laws on productivity or on what the magnitude of any such effects might be.

[90] This argument relies on "equity theory." Essentially, higher compensation may induce greater employee commitment, higher satisfaction arising from the perception that greater effort is fairly rewarded through higher pay, and higher pay may attract more productive workers. See the discussion by Ehrenberg, Smith and Chaykowski (2004:347) and the references therein.

[91] Several studies on the impact of unions on productivity in construction provide evidence of a sizeable positive effect. For example, Allen (1984) finds a union impact of roughly 17-22% for 1972; Allen (1986) finds a union effect of roughly 30% in office building construction in 1773-74; and Allen (1988) obtains the high estimate of a 50% effect for retail construction in 1976-78.

Table 2: The Impact of Fair Wage Policies on Wage Outcomes in Canada and the United States

Author (Year)	Country	Sector	Data	Purpose and Method	Findings
Kessler and Katz (2001)	United States	Blue-collar construction and non-construction	Current Population Survey Census Sample includes individual data; CPS 1979-93 Census 1969, 1979, 1989	Examine the effect of the repeal of state prevailing wage laws Analyses changes in relative wages over time between states with prevailing wage laws and states that repealed them; Regression Analysis	Repeal has a small negative (statistically significant) effect on wages;
Philips (1998)*	United States (Kansas)	Construction	US Bureau of Labor Statistics Average wages for years 1986-1991	Examines effect of repeal of Kansas' prevailing wage law in 1987 Descriptive comparison of wages across four neighboring states and over time	Decline in average wages after repeal of Kansas' prevailing wage law in 1987
Philips et al (1995)*	United States		U.S. Department of Labor Employment and Earnings Average annual construction earnings by year, state, contractor type; 1975-1991	Examines effect of repeals of prevailing wage law in various states Regression Analysis (n=27,778)	Repeal of prevailing wage law is associated with a 5% decrease in earnings (average in construction in nine appeal states).

Table 3: The Impact of Fair Wage Policies on Benefits Outcomes in Canada and the United States

Author (Year)	Country	Sector	Data	Purpose and Method	Findings
Peterson and Godtland (2005)	United States	Construction	Form 5500 (IRS) Census of Construction Industries Current Employment Statistics Current Population Survey	Analysis of the effect of prevailing wage laws on compensation, wages, benefits and the wage-benefit mix; Regression analysis	Prevailing wage laws are associated with higher wages (11%); higher benefits (61%) and tilting of compensation package in favour of benefits;
Peterson (2000)	United States	Construction	Form 5500 [IRS annual reports] Current Employment Statistics Current Population Survey 1982-1992	Examines impact of state repeals of prevailing wage laws on wages, benefits, and the wage-benefit mix in compensation Regression analysis (OLS)	Prevailing Wage Laws are associated with higher levels of compensation but by different amounts for different components [total (12%); wages (11%); benefits (61%); pension (105%)]) (repeal relative to no-repeal states) Prevailing Wage Laws are associated with a larger proportion of nonwage compensation in the total compensation
Philips (1998)*	United States (Kansas)	Construction	US Labor Department Form 5500 1982-1992	Examines trends in employer contributions per worker to pensions and health insurance in Kansas before and after repeal of prevailing wage law (1987)	Repeal of the Kansas prevailing wage law resulted in a decline in employer contributions to pensions and health insurance

Table 4: The Impact of Fair Wage Policies on Training Outcomes in Canada and the United States

Author (Year)	Country	Sector	Data	Purpose and Method	Findings
Bilginsoy (2005)	United States	Construction	US Bureau of Apprenticeship and Training (Apprenticeship Information Management System) Completions and terminations in trade apprenticeships (including carpenters; electricians; plumbers; pipefitter; painting; structural); ~35 states 1989-1995	Analysis of prevailing wage laws on: (i) apprenticeship registration (ii) probability of completion (cancellation) Regression analysis (OLS)	Prevailing wage law is associated with: (i) higher registrations; (ii) higher completion rates; (iii) greater cancellation rate;
Holmes (1997)	Canada (BC)	Construction	Apprenticeship Information Management System Completions and terminations in trade apprenticeships (including carpenters; electricians; plumbers; mechanical; finishing); 1984-1996	Analysis of training outcomes before and following introduction of Fair Wage law in 1992; Regression analysis (logit) (n=24,025)	Introduction of Fair Wage Law in 1992 had no effect on completion probabilities;
Philips (1999)*	United States	Construction	US Department of Labor, Bureau of Apprenticeship Training 1989-1995	Trend and Cross -section descriptive data	To the extent that prevailing wage laws support unions and collective bargaining, and unionization is associated with higher apprenticeship enrollments and completion rates, then repeal of prevailing wage laws is expected to decrease apprenticeship training
Philips (1998)*	United States (Kansas)	Construction	US Bureau of Apprenticeship and Training 1973-1990 15 states; focus on Kansas	Examines trends in apprentices in Kansas before and after repeal of prevailing wage law (1987) and in relation to 14 other states	Repeal of the Kansas prevailing wage law contributed to/ accelerated the ongoing decline in apprentices

Philips et al (1995)*	United States (Utah)	Construction		Case study of effect of repeal of Utah's prevailing wage law (1982)	To the extent that repeal of prevailing wage laws caused declines in unions and collective bargaining, and unionization is associated with apprenticeship training, then the repeals decreased apprenticeship training
	United States (all states)	Construction	US Department of Labor, Bureau of Apprenticeship Training 1975-78; and1987-90	Analysis of apprenticeship training rates across states and over time Analysis of effect of state repeal of prevailing wage laws Regression analysis (n=297)	Prevailing wage law repeal is associated with a lower training rate (decline of about 1.5%)
Azari-Rad, Yeagle and Philips (1994)	United States (Utah)	Construction	Case study; Descriptive trend data analysis; Plumber apprentices;	Effect of Utah's 1981 repeal of prevailing wage law on training	As far as repeal of theprevailing wage law caused declines in unionization, whch is associated with apprenticeship training, then the repeal is associated with lesser (apprenticeship) training

Table 5: The Impact of Fair Wage Policies on Health and Safety Outcomes in Canada and the United States

Author (Year)	Country	Sector	Data	Purpose and Method	Findings
Azari-Rad (2005)	United States (all states)	Construction	U.S. Bureau of Labor Statistics Survey of Occupational Injuries and Illness 1976-1999	Examines effects of prevailing wage laws on injury rates and time lost; Regression analysis (fixed effects)	Presence of a prevailing wage law is associated with (statistically significant) lower injury rates in the order of 7-10% (depending upon injury severity)
Philips (1999)*	United States (Kentucky)	Construction	US Bureau of Labor Statistics 1976-1991	Examines effect of exempting schools from prevailing wage laws in 1982 on injuries (rates) and lost time	Injury rates are higher in the period after the exemption (difference is significant)
Philips (1998)*	United States (Kansas)	Construction	US Bureau of Labor Statistics Injury cases, 1976-1991	Examines trends in injuries in Kansas before and after repeal of prevailing wage law (1987)	Injury cases/construction worker, and Injuries resulting in lost days, both increased after the repeal of the prevailing wage law.
Philips et al (1995)*	United States (all states)	Construction	U.S. Bureau of Labor Statistics Survey of Occupational Injuries and Illness Plumbers and Pipe Fitters 1978-1991	Analysis of effect of repeal of prevailing wage laws on injury rates across states; Injury rates; Lost time;	Repeal of prevailing wage laws is associated with an increase in accident rates and in injury lost time.

Table 6: The Impact of Fair Wage Policies on Construction Costs in the United States

Author (Year)	Sector	Data	Purpose and Method	Findings
Azari-Rad, Philips and Prus (2003)	Public school construction	Dodge Data Bid prices 50 states school construction >$750,000 1991-1999	Analysis of effects of presence or absence of Fair Wage laws across states on accepted construction bids Regression analysis (fixed effects)	Overall range of .8 to 2.5% higher under PWL Range of -1.2 to -0.1% lower under PWL in weak PWL states Range of 2.5-3.1% higher under PWL in strong PWL states Results never statistically significant
Lyons (1998)	Federal construction contracts	Bureau of Labor Statistics	Analysis of effect of Project Labor Agreements (PLAs) (that require payment of union compensation levels) on construction costs; Calculation of differences in wages under PLAs versus Davis-Bacon used to calculate marginal cost of PLAs Descriptive and summary Statistics	Annual costs increase of 1.7-7% under PLAs over Davis-Bacon
Philips (1999)*	Public school construction	FW Dodge New public school construction in all states Projects valued >$750,000 1991-1999	Examines effect of prevailing wage laws on new school construction costs Regression analysis (OLS) (n-6568)	Prevailing wage laws are associated with higher (2.4%) construction costs; result not statistically significant
Philips (1998)*	Elementary, middle and high school construction	FW Dodge New school construction Cross-state (15 states) 1991-1997	Testing for difference in average square foot costs of construction across states with and without prevailing wage laws	No difference in costs between prevailing wage and non-prevailing wage states for elementary, middle or high school construction
Prus (1996)	Nonresidential	FW Dodge	Estimates effect of state prevailing wage laws	No effect of prevailing wage laws on construction

	construction	Includes public & private; Cross-state; 1990	on total costs Regression analysis (OLS)	costs.
Allen (1983)	Residential, heavy, highway and building construction	Current Population Survey 1973-1978 Covers 77 SMSAs	Examine effect of Davis-Bacon on construction costs Accounts for possible bias in determination of the "prevailing wage" under Davis-Bacon	Determines cost impact of Davis-Bacon in the range of $41-224 million; Estimated cost range is lower than the estimates obtained in other studies;
Fraundorf, Farrell, and Mason (1983)	Non-residential rural construction	Interview Data 215 construction projects; Rural counties; Roughly ½ private projects; ½ public;	Analysis of Davis-Bacon on construction costs Regression analysis (OLS)	Impact of Davis-Bacon on construction costs in the order of 26.1% No evidence of factor substitution;
Gujarati (1967)	Nine construction crafts	300 counties from 50 states & territories 1960-1961	Examines cost implications of biases in determination of "prevailing wages" in the application of Davis-Bacon Examines potential bias towards prevailing union wages Descriptive analytical and case study techniques	Cost of bias in determination of prevailing wages is positive (e.g., roughly $1 million in one case study)

Table 7: The Impact of Fair Wage Policies on Construction Costs in Canada

Author (Year)	Sector	Data	Purpose and Method	Findings
Duncan and Prus (2005)	Private and public construction BC	Candata Cost measured as Bid price of private and public projects Projects valued > $1.5 mil. 1989-1995	Analysis of impact of introduction of Fair Wage law in 1992 on the differential in construction costs between public (covered byFair Wage) and private projects; Regression analysis (OLS); (n=723)	Establishment of the Fair Wage policy in 1992 has no (statistically significant) impact on the private-public cost differential;
Bilginsoy and Philips (2000)	Elementary and secondary public school construction in BC	Construction Labour relations Association of BC Final construction cost data; 6 school districts & 54 construction projects; > $250,000 1989-1995	Analysis of costs before and following introduction of Fair Wage law in 1992; Regression analysis (OLS);	The two time periods (before and after enactment of Fair Wage law) are structurally different; Increase in price after introduction of Fair Wage Law of between 6.1 and 9.4 %; and price appears to decline over time.
Prus (1997)	Construction of: Elementary and secondary public schools; office buildings; college and university buildings; medical facilities in BC	Candata Cost measured as Bid price of private and public projects 1989-1995 13,100 projects	Analysis of costs before and following introduction of Fair Wage law in 1992; Regression analysis (n=556)	Introduction of Fair Wage Law in 1992 had no (statistically significant) effect on project costs; Result holds for all types of structures;

8. Summary Remarks

Fair wage policies are currently utilized in Canada at the federal level, at the provincial level, and in a number of Canadian municipalities (e.g., notably in Toronto, but also in other major Canadian cities, such as Hamilton). As described above, these policies have long historical roots; yet, they have not undergone significant changes in their design.

Currently, Fair Wage Laws are set against a new context of lower levels of unionization in construction, emerging concerns over the capacity of the apprenticeship system to meet emerging skill requirements, and increased pressures on governments to contract out services and work to the nonunion sector. It is appropriate, therefore to consider whether or not the coverage, effect and relevance of fair wage laws has changed as the structure of the Canadian economy and labour market has significantly shifted over the past several decades.

Originally, the main policy concern leading to fair wage laws centered on wages, primarily from an equity viewpoint. While equity considerations remain important, efficiency rationales are also relevant in today's construction labour market. Several factors operating in the construction industry create terms and conditions of employment that suggest utilizing fair wages as a policy response. These factors include the continued prevalence of underground construction activity, the heavy reliance on subcontracting, and limited bargaining power of individual nonunion workers. These factors can create conditions in which labour standards are at risk, low wages become prevalent among some workers, and maintaining health and safety standards becomes problematic in the nonunionized segment of the workforce.

Taken together, these characteristics serve to differentiate the construction labour market from that of other industries. They also result in labour market conditions that are not consistent with competitive outcomes. Fair Wage policies are one longstanding policy response to these factors. While fair wage policies were originally framed primarily in terms of equity, they are increasingly relevant as a means of supporting greater efficiency as well.

The research evidence suggests that fair wage laws have a direct positive effect on wage levels and health and safety outcomes. While the impact on wages may operate to increase construction costs, at least in the short run, higher compensation in the form of higher wages and benefits may also induce greater worker effort and hence productivity. Improved accident outcomes may also have a direct positive impact on productivity – as well as achieving lower costs.

An ongoing, and still evolving, policy issue relates to whether training capacity in the construction industry is sufficient to meet current and future demand for skilled labour. Adequate training capacity is seen as necessary in order to support higher productivity in the industry. Since unions have a significant role in apprenticeship training programs in construction, their decline in recent years has been linked with lower training capacity in

the industry. By supporting unions, Fair Wage laws are seen as having an indirect impact on training and, therefore, on productivity. This line of causality is identified in the research on the impact of fair wage laws on training outcomes. Thus there appear to be strong linkages between fair wage policies, training and apprenticeship programs, and productivity.

The recent broader economic policy focus on productivity points to the need to more closely examine the linkages between fair wage policies and productivity in construction. One key question is how fair wage policies may be better designed and targeted in order to enhance training that supports the further development of a high skill, high wage construction labour force, to improve safety performance, and therefore to increase productivity.

Figure 2: Effects of Fair Wage Policies and Worker, Workplace and Outcomes in the Construction Sector

	Fair Wage Effects	Remarks
Compensation Impacts		
Wages	+	Large efffects
Benefits	+	Very large effects
Workplace Outcomes		
Training	+	Small effects; may be larger over the longer term;
Health and Safety	+	Large effects, especially ove rthe longer term
Firm-Level and Sectoral Impacts		
Productivity	?	Expect some positive effects over the long run
Costs	+	Cost impacts may dissipate over time as firms compensate for higher labour costs (e.g., capital substitution)

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