

**WHEN WAGES ARE NOT ENOUGH: POLICY OPTIONS
TO HELP B.C. WORKERS MAKE ENDS MEET**

by

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Abstract

Some full-time workers in British Columbia do not earn enough to afford basic necessities such as shelter, food and clothing. This study proposes and assesses policy alternatives available to the provincial government to assist these workers in achieving an acceptable standard of living. An overview of relevant economic theory and current government benefit programs is provided and a simple model is constructed to estimate the net income of a household after benefits and deductions. The calculation is done for four hypothetical households and the outcomes for each household are compared for four proposed policy alternatives. The alternatives are then evaluated against a multi-criteria framework. The study recommends that the provincial minimum wage be raised to \$10 per hour and that the increase be accompanied by an adjustment to the Rental Assistance Program to allow beneficiaries to keep a greater portion of their housing subsidy.

Keywords: minimum wage; rental assistance program; low income; working poor

Subject Terms: Minimum Wage; Housing Subsidies; Working Poor – British Columbia

Executive Summary

The rising cost of living in British Columbia has put increased pressure on the ability of low-income households to afford their basic needs. Even some full-time workers find that their wages are insufficient to afford adequate food, housing and clothing. This is a concern for public policy for two reasons. First, there is a cost to society as adults and children in low-income families experience reduced opportunities to succeed in life due to poorer health and education outcomes. Society bears the cost in the form of increased demand for health care and social programs and reduced productivity. Second, British Columbians are committed to a basic notion of equality and believe that all children should have an equal opportunity to succeed regardless of family income. When families are unable to provide children with the basic necessities, the province fails to live up to this ideal.

This study examines the policy tools available to the province of British Columbia to reduce the gap between wages earned and the cost of a basic standard of living. I begin my analysis by providing an overview of relevant economic evidence. I then outline the major federal and provincial benefit programs and tax systems and construct a simple model that uses wages, government benefits and deductions as variables to compute the differential between net income and basic expenses. I then introduce four hypothetical households representing working families at risk of being in low income: an unattached individual, a single parent with two children, a married couple without children and a married couple with two children.

Four policy alternatives are developed that embody a range of options available to the provincial government. The alternatives are:

- Status Quo
- Increase the Minimum Wage to \$10 per Hour
- Expand the Rental Assistance Program (RAP) to Include Households Without Children
- Increase the Minimum Wage to \$10 per Hour and Raise RAP Income Limits by \$10,000

The model of net household income is used to analyze the impact of the four alternatives on each household. I find that the alternatives impact each hypothetical household differently and with varying degrees of success in reducing the differential between net household income and basic expenses. I also find that the effectiveness of income-enhancing policies is compromised by the phasing-out of government benefits as income increases.

The alternatives are further assessed by a set of criteria and measures designed to enable comparison and highlight trade-offs among the various options. The criteria include effectiveness, cost to government and to business, equity impacts on business and on individuals, acceptability to a variety of stakeholders and administrative feasibility. The analysis reveals important trade-offs, notably between the effectiveness and equity criteria. Policies that target benefits to groups of people in the greatest need tend to be the most effective, but they rank poorly on equity because they discriminate against those who are excluded.

I find that the proposal to combine a minimum wage increase with an increase to the eligible income levels of the RAP housing subsidy is most effective in achieving the policy goal and is likely to be supported by stakeholders. The change to the RAP reduces the overall marginal effective tax rate and allows low-income workers to retain a larger portion of their increased earnings. The policy would further benefit from similar adjustments to the phase-out rates and thresholds of other federal and provincial benefit programs. Therefore, I recommend that British Columbia initiate discussions with the federal government aimed at establishing a cooperative framework to support the minimum wage increase and ultimately improve the situation for B.C.'s low-income working families.

Dedication

To my Grannie, Hazel Balcom, who believed that I could do anything.

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Glossary

CCTB	Canada Child Tax Benefit
CMHC	Canada Mortgage and Housing Corporation
CNIT	Core Need Income Threshold
CPP	Canada Pension Plan
CRA	Canada Revenue Agency
EI	Employment Insurance
GST	Goods and Services Tax
LICO	Low Income Cut-Off
LIM	Low Income Measure
METR	Marginal Effective Tax Rate
Metro Vancouver	The regional authority of the metropolitan Vancouver area. Alphabetical list of member municipalities: Anmore, Belcarra, Bowen Island, Burnaby, Coquitlam, Delta, Langley, Lions Bay, Maple Ridge, New Westminister, North Vancouver, Pitt Meadows, Port Coquitlam, Port Moody, Richmond, Surrey, Vancouver, West Vancouver and White Rock
MSP	Medical Services Plan
NCB supplement	National Child Benefit supplement
NCBS	National Child Benefit System
RAP	Rental Assistance Program
Stats Can	Statistics Canada
WITB	Working Income Tax Benefit

1: Introduction

It is an unfortunate reality that some full-time workers in British Columbia do not earn enough to meet the basic needs of their families. Their wages fall short of covering their expenses for necessities such as shelter, food and clothing. This situation is at odds with what most British Columbian policy-makers and citizens would agree “ought to be a fundamental objective of social and economic policy: if you work full-time, you should not be poor” (Saunders 2005, p. i). The province has experienced several years of prosperity with low unemployment levels and strong job creation in high-wage sectors. While no policy can ensure that everyone willing to work full-time can afford the basic necessities, British Columbia’s recent economic success makes it appropriate to investigate policies that reduce the gap between wages earned and the cost of living to a basic acceptable level.

The proportion of British Columbians living in low income is substantial. The most recent figures show that in 2006, 13.0 per cent of all persons in British Columbia (B.C.) were living on incomes below Statistics Canada’s Low Income Cut-Off (LICO), a higher rate than the Canadian average of 10.5 per cent (Statistics Canada 2008e, pp. 87 and 107). B.C. has ranked ninth or tenth out of ten provinces on this indicator every year since 1997 (B.C. Progress Board 2008, p65, Banting 2006). Data from the 2006 Census show that 15.1 per cent of full-year, full-time workers in B.C. (over 168,000 people) earned less than \$20,000 per year while the Canadian average for full-year, full-time workers earning less than \$20,000 per year was 15.4 per cent (Statistics Canada 2008d). These people are likely to be living in low income and are at risk of experiencing problems in securing their basic needs.

Researchers have long understood that low income has a wide range of impacts on individuals, families and society as a whole (Moore and Skaburskis 2004, Klein, et al. 2008, Banting 2006), but the consequences for children growing up in low-income families are particularly troubling. Inadequate housing and nutrition affect health and cognitive development, lead to poorer education outcomes, and ultimately result in a higher risk of dropping out of school or becoming involved in crime (Klein, et al. 2008). Society must bear the increased cost of income supports and social services when these children become adults with fewer employment opportunities (Klein, et al. 2008, Banting 2006). However, cost is not the only reason that society has an interest in addressing problems of low income. Banting (2006) argues that British Columbians are committed to a basic notion of equality and believe that all children should have an equal opportunity to succeed regardless of family income.

While most citizens and policy-makers agree that ensuring that full-time workers in B.C. can meet their own and their families' basic needs is an appropriate goal, considerable debate arises about how this goal can best be achieved. Both the federal and provincial levels of government have jurisdiction over potential policy tools, but the regional nature of provincial strategies means that they can be more easily tailored to the needs of British Columbians. For this reason, my study examines policy options available to the province of British Columbia to reduce the gap between income and basic expenses. I do not assess the merits of various strategies at the federal level or longer-term solutions such as education. Rather, my focus is on shorter-term reforms to existing programs in British Columbia, which are amenable to speedy implementation and fast results. By focusing on policies at a single level of government, my analysis is better able to assess policy tradeoffs.

In the next section I provide background information including a survey of various measures of low income and a discussion of the economic theory and evidence on minimum wage policies and housing subsidies. Section 3 outlines the policy context in terms of

government jurisdictions and programs and benefits currently available to low-income workers. In Section 4, I describe four hypothetical households living in low income and construct a model by which the outcome for each household can be assessed under various policy alternatives. I then describe four policy alternatives designed to improve the circumstances of each household by raising their income or reducing their expenses. I develop the framework for evaluating these alternatives in Section 6 and conduct a policy analysis of each option in Section 7. After assessing tradeoffs between various criteria and discussing the limitations of my study in Section 8, I conclude in Section 9 with a recommendation for the province of British Columbia.

2: Background

2.1 Basic Needs

The concept of ‘basic needs’ arises often in social science literature, but there is no single definition of the term. Some researchers interpret ‘basic necessities’ broadly and include expenses for food, shelter and clothing, as well as items such as transportation, education, health, child care and a contingency fund (Klein, et al. 2008). Statistics Canada (2008a) confine their definition to food, shelter and clothing, with shelter costs including expenses for rent and utilities, but excluding optional ‘extras’ such as parking (Curran and Wake 2008). I adopt the latter concept for use in my study. In British Columbia, essential health care and children’s education are provided free of charge (notwithstanding the Medical Services Plan premium discussed later). Transportation and saving for contingencies are arguably optional expenses.

A stronger case can be made for including child care as a basic need, as these expenses take up a large portion of the household budget. The purpose of my study, however, is to investigate options to assist low-income workers, and not all of these households have children. Those with children face child care expenses that vary widely, from several hundred dollars per month for an infant to zero dollars for older school-age children. In order to focus my analysis on policy alternatives that can benefit all low-income households, I confine my definition of ‘basic needs’ to the expenses that are common to all. In the scenarios modelled later in this study, I exclude child care expenses by assuming that any children are school-age and require no care.

2.2 Measures of Low Income

2.2.1 Low Income Cut-Off (LICO)

The most commonly used measure of low income in Canada is the Low Income Cut-Off (LICO). The LICO is an income threshold below which the proportion of family income spent on the necessities of food, shelter and clothing is likely to be 20 percentage points higher than for the average family (Statistics Canada 2008a). The calculation is based on information from the 1992 Family Expenditures Survey and is adjusted annually according to the Consumer Price Index. Because household expenses vary by household size and by the cost of living in urban or rural areas, Statistics Canada computes LICOs for combinations of seven family sizes and five community sizes. LICO values are also calculated before-tax (but after government transfers) and after-tax. It should be noted that the LICO is based on economic family income rather than household income. Both concepts refer to a group of people living together, but the economic family is a slightly narrower concept because members must be related by blood, marriage or adoption (Statistics Canada 2003a).

2.2.2 Low Income Measure (LIM)

A measure of low income that is more widely used internationally than in Canada is the Low Income Measure (LIM). The LIM is equivalent to 50 per cent of average economic family income adjusted (by various methods) for family size. Statistics Canada calculates the LIM annually using information from the Survey of Labour and Income Dynamics (SLID). LIMs are reported for three types of income: market income (employment, investment and private retirement income), before-tax income (including government transfers) and after-tax income.

2.2.3 Core Need Income Threshold (CNIT)

It has become generally accepted by academics and policy makers in western countries that shelter costs should not exceed 30 per cent of total family income (Niedt, et al. 1999,

Hulchanski 2005, Klein 2008). Following this premise, the Metro Vancouver Housing Corporation derives another measure of low income. The Core Need Income Threshold (CNIT) for a particular community is the household income at which 30 per cent will cover the average market rent for an appropriately-sized unit in the private market. The average market rent is taken from Canada Mortgage and Housing Corporation (CMHC) Rental Market Surveys and the size of the unit required by a household is defined by the occupancy standards of federal and provincial housing agencies (Metro Vancouver, nd).

2.2.4 Living Wage

The Canadian Centre for Policy Alternatives (CCPA) has calculated the ‘living wage’ that families of full-time workers require to afford to live in cities in British Columbia (Klein, et al. 2008). Their study estimates the expenses for a family of two adults and two children and works backwards to derive the hourly wage that provides the necessary income. Expenses considered include food, clothing and shelter, as well as child care, transportation, additional health care, parental education, entertainment and a contingency fund.

2.2.5 Comparing Measures of Low Income

The values of the measures of low income discussed above are reported for Vancouver in Table 2.1. It is evident that the values vary considerably. For example, a single parent with two children is considered to be in low income if she earns less than \$38,500 per year by the CNIT measure, but the same individual must earn less than \$25,339 per year to be in low income according to the LIM based on market income.

Table 2.1 *Most Current Measures of Low Income for Vancouver*

	2007 after-tax LICO*	2007 before- tax LICO*	2006 after-tax LIM*	2006 before- tax LIM*	2006 market income LIM*	2006 Core Need Income Threshold **	2008 living wage***
1 adult	17,954	21,666	15,179	17,437	14,905	29,000	
1 adult, 1 child	21,851	26,972	21,251	24,412	20,867	32,500	30,467
1 adult, 2 children	27,210	33,159	25,804	29,643	25,339	38,500	
2 adults	21,851	26,972	21,251	24,412	20,867	32,500	
2 adults, 1 child	27,210	33,159	25,804	29,643	25,339	32,500	
2 adults, 2 children	33,946	40,259	30,358	34,874	29,810	38,500	60,934
2 adults, 3 children	38,655	45,662	34,912	40,105	34,282	46,500	

* Statistics Canada (2008), ** Metro Vancouver (nd), *** Klein, et al. (2008)

Rather than attempt to estimate household expenditures on basic needs, I will use the after-tax LICO as a proxy measure of the income required to meet the basic needs of a family. I have chosen this measure over the alternatives for three reasons. First, it is the measure most commonly used in government statistics and academic literature. Second, it makes sense to use an after-tax value rather than a before-tax value since households make purchasing decisions based on after-tax dollars. Finally, there is evidence that the after-tax LICO is a fairly realistic estimate of expenses. Klein, et al. (2008, p. 27) estimate that a hypothetical family of four living in Vancouver would spend \$34,395 on food, shelter, clothing, transportation and health expenses in 2007¹. The 2007 after-tax LICO for such a family is \$33,946 (Statistics Canada 2008a).

2.3 Economic Theory and Evidence

Two general approaches can be used to reduce the gap between income earned and the cost of meeting basic needs: enhance income or reduce expenses. Variations of these solutions

¹ The “living wage” for a family of four reported in Table 2.1 is a much higher figure since it also includes amounts for child care, parent education, contingency and ‘other.’ (Klein, et al. 2008, p. 27).

have been implemented and studied all over the world, and a large body of research exists on the relative effectiveness of different strategies. I now examine the economic theory and evidence on some of the policy instruments that are within the jurisdiction of the province of British Columbia. First, income can be enhanced for the lowest earners by raising the minimum wage. Alternatively, the province can reduce the costs of basic needs such as food, shelter and clothing for low-income families. The cost of shelter is usually the largest expense for low-income families (Niedt, et al. 1999), and devoting a greater proportion of income to housing puts stress on a family's ability to afford other necessities such as food and clothing (Moore and Skaburskis 2004). For this reason, provinces typically focus on programs relating to affordable housing, and I will concentrate on the theory behind these programs in this section.

2.3.1 Minimum Wages

Most developed nations have legislated a minimum wage, or a wage floor below which it is illegal to employ a person. The most common rationale for instituting a minimum wage is the alleviation of poverty (Gunderson 2005). Policy makers hope that by setting a minimum wage, the income of society's lowest-paid workers will be raised and thereby their living standards improved. Economists, however, understand that minimum wage policies have the potential for perverse effects, particularly through disemployment arising when employers facing higher labour costs choose to employ fewer workers or reduce their workers' hours. Whether disemployment actually occurs when a minimum wage is introduced or increased depends on the elasticity of demand for labour. This elasticity, in turn, hinges on the ease with which employers can substitute other inputs (such as greater mechanization or outsourcing of services) for their current workers' services; it also depends on the responsiveness of consumers to an increase in the price of the goods and services that the firms produce.

Disemployment effects can be empirically observed, and researchers have conducted numerous econometric studies in Canada, the United Kingdom and the United States to determine

whether the benefits of minimum wage increases outweigh the costs. The results to date have been mixed. Reviews of minimum wage studies in the United States reveal that, while there is no firm consensus, minimum wage increases may have a slight disemployment effect on teens, a smaller effect on the employment of young adults aged 20-24 and inconclusive results for the effect on adult employment (Gunderson 2005, Neumark and Wascher 2006, Saunders 2005, Kraut, et al. 2000). The elasticity of teenage employment is likely to be -0.1 to -0.3, meaning that a 10 per cent increase in the minimum wage is likely to result in a 1 to 3 per cent reduction in teenage employment (Gunderson 2005, p. 25). The results of early Canadian studies seemed to confirm this result, but more recent studies suggest that the elasticity of teenage employment may be as high as -0.3 to -0.6 (Gunderson 2005, p. 44). As in the United States, observed disemployment effects decrease with the age of the worker. Saunders concludes that in Canada, “the evidence suggests that sizeable increases in the minimum wage are possible without adversely affecting the employment of adults over the age of 24” (2005, p. iii).

While no conclusive evidence of disemployment among adults exists, Gunderson (2005) cautions that some of the impact of minimum wage increases on employment might be masked by a ‘churning’ effect. The negligible disemployment effect observed “could be the net result of a large decline in the employment of persons affected directly by the minimum wage being partially offset by an expansion in the employment of persons just above the minimum wage,” as employers substitute away from minimum wage workers (Gunderson 2005, p. 28). These uneven distributional impacts lead many researchers to refer to minimum wage increases as a ‘blunt instrument’ for dealing with poverty (Saunders 2005, Gunderson 2005). Furthermore, Burkhauser and Sabia (2007) note that “the benefits of minimum wage increases tend to primarily accrue to non-poor households. Most workers living in poor households earn wage rates that are higher than proposed federal minimums and hence do not gain from them, and most minimum wage workers who do gain from them live in non-poor households” (p. 277). Gunderson (2005)

agrees that minimum wage increases are not well targeted because poverty is a situation of the family while wages are paid to an individual.

The difficulties with the minimum wage as a policy instrument for the reduction of poverty cannot be ignored. Economists often point out that the policy interferes with the market's ability to price and allocate labour most efficiently. It is likely, however, that minimum wage increases will remain an important tool for policy makers. Particularly at the provincial level, the minimum wage is one of the few tools policy makers have available to alleviate poverty, and political considerations are likely to continue to force incremental increases.

2.3.2 Rental Housing Subsidies

Generally speaking, welfare economics holds that government intervention in the market is justified if it improves economic efficiency by addressing market failure, imperfect competition, imperfect information or incomplete markets. In the case of affordable housing, intervention is often also justified on social grounds, to address inequalities arising from differences in income (Haffner and Boelhouwer 2006, Hulchanski 2005). Governments can influence housing affordability in several ways. They can legislate price controls (commonly called rent controls), reduce prices by incentivizing the construction of affordable units or provide social housing directly or through third parties. They can also directly subsidize low-income households. Some of these measures address supply (efforts to increase the stock of affordable housing), while others address demand (efforts to increase the ability to pay for adequate housing).

Supply-side strategies were common in Western countries in the period following the Second World War, but “a shift occurred from production-oriented object-based subsidies to person-based and income-dependent or means-tested subsidies in the 1970s and 1980s” (Haffner and Boelhouwer 2006, p. 944). Rather than encouraging construction of new affordable units,

governments opted to pay low-income households a portion of the difference between their actual rent and what they could afford to pay for adequate housing. Inclusion of the subjective concepts ‘affordable’ and ‘adequate’ indicates that while multiple policy goals were addressed, the underlying rationale for the policies had more to do with social goals than economic efficiency. In designing subsidy programs, policy makers have to define each term in order to target the benefits appropriately. While most researchers and policy makers would admit that the figure is essentially arbitrary, 30 per cent of household income has become a widely accepted benchmark for ‘affordable’ shelter expenditure (Niedt, et al. 1999, B.C. Housing 2006, Haffner and Boelhouwer 2006). In Canada, households spending more than 30 per cent of their income on shelter are referred to as being in ‘core housing need’ (B.C. Housing 2006). ‘Adequate’ housing is more difficult to define. The Canada Mortgage and Housing Corporation (CMHC) description changes from time to time but is always based on a combination of the condition of the dwelling and the suitability of its size for the family in question (B.C. Housing 2006).

As with minimum wages (or any intervention in private markets), rental subsidies have the potential for adverse impacts. First, income-based subsidies can be a disincentive for recipients to work or to increase their hours. These benefits are typically phased out, or clawed back, as income increases, meaning that a household retains less than 100 per cent of any additional earnings. The sum of benefits lost and income-based taxes paid on the additional income is referred to as the marginal effective tax rate (METR). The higher the METR, the greater the disincentive to work, similar to an increase in a conventional tax rate on earnings (Haffner and Boelhouwer 2006, Olsen, et al. 2004). Second, programs that allow recipients a high degree of choice in housing risk subsidizing ‘over-consumption’ of housing, where a tenant does not economize on rent because he or she does not bear all the additional cost (Haffner and Boelhouwer 2006). Third, the more targeted the subsidy program, the more likely it is to create horizontal inequities where not all households needing assistance are able to get it. Many policies

have eligibility rules that are intended to help the most vulnerable, for example, seniors, single parents and the disabled. These rules exclude others who have equal difficulty affording adequate housing from receiving benefits (Haffner and Boelhouwer 2006).

These potential adverse effects are significant but can be minimized by careful policy design. Some disincentive to work is always present in a housing subsidy program, but it makes a difference “whether the subsidy is attached to the dwelling unit or the assisted household” (Olsen, et al. 2004, p. 9). Payments made directly to households (portable housing allowances) allow more choice in housing and more flexibility to move to pursue employment if needed. Benefit portability encourages income mixing (as subsidized tenants are not restricted to social housing units) and uses existing affordable housing stock rather than requiring that new units be built (CFAA 2008). The phase-out rate of the benefit can also be reduced to minimize the benefits lost due to increases in income. Over-consumption of housing can be discouraged by stipulating maximum rent and benefit levels (Haffner and Boelhouwer 2006). Horizontal inequities can be reduced by paying tenants rather than landlords. This allows government to reach people in the private rental market who would not normally qualify for social housing (B.C. Housing 2006).

Another commonly raised concern with housing subsidy programs is that they put upward pressure on monthly rents on affordable units. This shifts part of the benefit of the subsidy from the tenant to the landlord and may result in affordability problems for non-subsidized low-income households. However, “numerous studies have shown there is no evidence that properly designed housing allowances cause [rent] inflation” (CFAA 2008, p. 3). The criticism is more appropriately levelled at the U.S. Section 8 system of housing vouchers in which the subsidy is paid to landlords, tenants must find a landlord willing to accept the voucher and submit to inspections, and there is a long waiting list for households to receive benefits. All of these characteristics can produce rent inflation. Canadian housing subsidy programs, including

the B.C. Rental Assistance Program (discussed in detail in Section 3.2.5), use portable subsidies paid to tenants. By making subsidy recipients anonymous to landlords and allowing tenants choice of where to live, rent inflation is minimized (CFAA 2008).

Pursuing a demand-side strategy such as rental subsidies does not preclude policies aimed at increasing the affordable housing supply. Many governments pursue both policies at the same time in order to ensure adequate stock of affordable housing for subsidized households to rent. However, building new housing units takes years. Rental subsidies are flexible and can be quickly adapted to renters' changing needs, and they can be administered at a very low cost (CFAA 2008). And because portable subsidies are not dependent on the availability of social housing units, the program can be adjusted or expanded quickly. These advantages justify the continued focus on portable subsidies by policy makers hoping to assist low-income families.

3: Policy Context: Current Policies and Programs

Canada's constitution divides responsibility for policy areas between the federal government and the provinces and territories. The policy tools that can be used to assist low-income workers and their families are not all under the jurisdiction of a single level of government. Provincial governments has jurisdiction over areas of social policy like health, education, social assistance (welfare) and housing. The federal government has the power to levy payroll taxes, income tax and associated tax credits (and also collects income taxes on behalf of most provinces). The federal government also has a spending power that has been interpreted broadly to allow it to influence areas of provincial jurisdiction such as housing. To further complicate matters, municipalities operate under provincial authority and have been given responsibility for the delivery of a variety of services. In this section, I describe the programs and policies most relevant to the net incomes of low-income workers in British Columbia.

3.1 Minimum Wage in British Columbia

The minimum wage in British Columbia is \$8 per hour and applies to all workers except live-in home support workers, resident caretakers of apartment buildings and certain farm workers who are paid specified piece rates. There is also a 'First Job/Entry Level Wage' of \$6 per hour for the first 500 hours worked by an employee with no previous paid work experience (B.C. Ministry of Labour and Citizen's Services 2003). In addition to hourly wages, employees are entitled to vacation pay of 4 per cent of all wages earned after five days on the job. After five years of employment vacation pay increases to 6 per cent of wages earned (B.C. Ministry of Labour and Citizen's Services 2003).

British Columbia's minimum wage has not been increased since November 1, 2001 (Human Resources and Social Development Canada, 2008). As other provinces have increased their minimum wages, B.C. has been left with the second-lowest minimum wage in the country (see Table 3.1). Across Canada, minimum wages range between \$7.75 per hour in New Brunswick to \$10 per hour in Nunavut. Newfoundland and Labrador have announced plans to raise their minimum wage to \$10 per hour on July 1, 2010 and Ontario's minimum wage will rise to \$10.25 per hour on March 31, 2010 (Human Resources and Social Development Canada 2008). In 2007, the number of workers in B.C. earning the minimum wage was approximately 62,600, or 3.4 per cent of the total work force (Godin and Veldhuis 2009, p. 3).

Table 3.2 *Minimum Wages in Canada*

Province/Territory	Minimum Hourly Wage	Effective Date
Alberta	\$8.40	April 1, 2008
British Columbia	\$8.00	November 1, 2001
Manitoba	\$8.50	April 1, 2008
New Brunswick	\$7.75	March 31, 2008
Newfoundland and Labrador	\$8.50 (\$10.00)	January 1, 2009 (July 1, 2010)
Northwest Territories	\$8.25	December 28, 2003
Nova Scotia	\$8.10 (\$9.65)	May 1, 2008 (October 1, 2010)
Nunavut	\$10.00	September 5, 2008
Ontario	\$9.50 (\$10.25)	March 31, 2009 (March 31, 2010)
Prince Edward Island	\$8.00	October 1, 2008
Quebec	\$8.50	May 1, 2008
Saskatchewan	\$8.60 (\$9.25)	May 1, 2008 (May 1, 2009)
Yukon	\$8.58*	April 1, 2008*

*On April 1 of each year, this wage increases by an amount corresponding to the annual increase for the preceding year in the Consumer Price Index for the city of Whitehorse.

Source: Human Resources and Social Development Canada (2008).

3.2 Benefits Available to Low-Income Workers in British Columbia

3.2.1 Working Income Tax Benefit (WITB)

The Working Income Tax Benefit (WITB) was introduced in the 2007 federal budget. It is a refundable tax credit of 20 per cent of earned income over \$3,000 per year up to a maximum of \$522 for unattached individuals and \$1,044 for single parents and couples. The phase-out or claw-back rate is 15 per cent and begins after \$9,500 of earnings for individuals and \$14,500 for families. Maximum benefit levels and thresholds will be indexed in the future (Department of Finance Canada 2007).

The federal government considers the WITB an important part of efforts to lower the ‘welfare wall’ – the phasing-out of benefits due to increased income that constitutes a barrier to work. In the 2009 federal budget, changes to enhance the WITB were announced. Starting in the 2009 tax year, the benefit will increase to 25 per cent of earned income over \$3,000 per year, and the maximum benefit level will rise to \$925 for individuals and \$1,680 for single parents and couples. The phase-out rate will remain at 15 per cent but will begin at \$10,500 for individuals. The income at which payments to single parents and couples is phased-out is unchanged at \$14,500 (Department of Finance Canada 2009, pp. 113–114). As my study focuses on the 2008 tax year, I use the original figures in the scenarios modelled later in this study.

3.2.2 National Child Benefit System (NCBS)

The Canada Child Tax Benefit (CCTB) is a monthly payment from the federal government to families with at least one child under the age of 18. In addition, low-income families may receive the National Child Benefit (NCB) supplement. Together the CCTB and NCB supplement are referred to as the National Child Benefit System (NCBS)². The total benefit

² The Universal Child Care Benefit (UCCB) is a taxable benefit that pays \$100 per month for each child under the age of six (Canada Revenue Agency 2008i). I do not cover the UCCB in this section because in the scenarios outlined later in this study I assume that all children are over the age of six and the households are therefore ineligible for the benefit.

is calculated based on net family income and the number of children in the family (with an adjustment to account for the economies of scale for families with more than one child). For benefits paid in 2008, payments were as high as \$277.66 per child per month and were reduced on a sliding scale that reached \$0 in benefits at \$103,235 in annual family income (Canada Revenue Agency 2008a).

The Child and Family Benefits Online Calculator available on the Canada Revenue Agency website (www.cra-arc.gc.ca) automatically includes the CCTB and the NCB supplement, as well as the B.C. Family Bonus and the B.C. Earned Income Benefit if the claimant qualifies (Canada Revenue Agency 2008a). I summarize these benefits in Table 3.2 below, but I use the Online Calculator to compute benefits in the scenarios modelled later in this study.

Table 3.3 Federal and Provincial Benefits for Families with Children in British Columbia, 2008

	No. of Children	Phase-In Rate	Maximum Monthly Benefit	Phase-Out Rate
CCTB	1	not applicable	\$108.91	2% of income over \$37,885
	2		\$108.91	4% of income over \$37,885
	3 +		additional \$7.58 each	
NCB Supplement	1	not applicable	\$168.75	12.2% of income over \$21,287
	2		\$149.33 each	23.0% of income over \$21,287
	3 +		\$142.00 each	33.3% of income over \$21,287
BCFB	1	not applicable	\$111	9% of income over \$20,500
	2			18% of income over \$20,500
BCEIB	1	For income \$3,750 to \$10,000: (Income - \$3,750) / \$6,250	\$13.66	6% of income over \$21,480
	2		\$11.75	19% of income over \$21,480
	3 +		\$16.50 each	7.6% of income over \$21,480

Sources: Canada Revenue Agency (2008i), Province of British Columbia (2008).

The 2009 federal budget proposed to “apply the new upper limit for the 15 per cent tax bracket for income testing the National Child Benefit supplement (NCBs) and the Canada Child

Tax Benefit (CCTB)” effective in July 2009, allowing families to earn an additional \$1,894 per year before their benefits begin to be phased-out (Department of Finance Canada 2009, p. 110). Because the proposed changes have not yet taken effect, I use 2008 figures in the calculations later in this study.

3.2.3 Goods and Services Tax (GST) Credit

The Goods and Services Tax (GST) credit is a quarterly payment intended to offset a portion of the tax paid by individuals and families with low incomes (Canada Revenue Agency 2008c). Benefits are calculated based on family income, marital status and the number of children in a family. For benefits paid in the 2008 tax year, claimants had to report between \$7,851 and \$51,000 in annual income to receive benefits, and benefits began to be phased-out or clawed-back at \$31,524 in income (Canada Revenue Agency 2008c). I will again use the Child and Family Benefits Online Calculator to compute benefits used in the scenarios modelled later in this study.

3.2.4 Medical Services Plan (MSP) Premium Assistance

British Columbia’s Medical Services Plan (MSP) is a mandatory health insurance program for which the monthly premium is \$54 for an individual, \$96 for a family of two and \$108 for a family of three or more. Individuals or families earning less than \$28,000 per year are eligible for premium assistance on a sliding scale as outlined in Table 3.3. A household’s ‘net adjusted income’ is calculated by subtracting various deductions (\$3,000 for a spouse, \$3,000 for each adult over 65 and \$3,000 minus half of all child care expenses claimed for each child) from the total net income of all earners in the household as reported on the federal income tax return.

Table 3.4 British Columbia Medical Services Plan Premium Assistance Levels

Net Adjusted Income	Percentage Subsidy
\$20,000 or less	100
\$22,000 or less	80
\$24,000 or less	60
\$26,000 or less	40
\$28,000 or less	20

Source: B.C. Ministry of Health Services (2008).

3.2.5 Rental Assistance Program (RAP)

As previously mentioned, the commonly used benchmark for affordable housing is that shelter costs should not exceed 30 per cent of total family income (Niedt, et al. 1999). For families with at least one dependent child spending more than 30 per cent of their income on rent, British Columbia's Rental Assistance Program (RAP) reimburses a portion of the difference. The RAP was introduced in 2006 as part of B.C. Housing's *Housing Matters B.C.: A Housing Strategy for British Columbia*. Eligibility is subject to an income test (families must have a gross annual income of \$35,000 or less), an asset test (families must have less than \$100,000 in assets) and an employment test (claimants must file a tax return indicating some income from employment). (B.C. Housing 2008b). In 2008, two years after the program's introduction, 4,500 households were receiving RAP payments (B.C. Housing 2008b). B.C. Housing is working to increase the take-up rate through an information campaign and by raising the 'ceiling' for household income from the initial limit of \$28,000 per year to the current level of \$35,000 (a change that took effect April 1, 2008).

The calculation of RAP payments is subject to several limits. Benefits are capped so that the maximum payable to a family of three or less is \$585 per month (or \$653 in Metro Vancouver) and the maximum payable to a family of four or more is \$621 per month (or \$765 in Metro Vancouver). The maximum rent ceilings for Metro Vancouver are \$975 per month for a family of three or less or \$1100 per month for a family of four or more (B.C. Housing 2008b). The formula used to calculate benefits is shown in Figure 3.1.

Figure 3.1: B.C. Rental Assistance Program Formula

$$\text{Rent Gap} = \text{Actual Rent (or Max. Rent)} - 30\% \text{ of household income}$$

$$\text{Percentage of Rent Gap Covered} = \begin{cases} 90\% & \text{if household income} \leq \$10,000 \\ 90\% - .0022(\text{income} - \$10,000) & \text{if } \$10,000 < \text{income} < \$35,000 \\ 0\% & \text{if household income} \geq \$35,000 \end{cases}$$

Source: B.C. Housing (2008c).

The Rental Assistance Program is in many respects well-designed and appears to function well. It minimizes the potential disincentive to work by requiring that recipients be employed and by imposing a relatively low tax-back rate on increased earnings. It discourages over-consumption of housing by imposing rent ceilings and limits on benefits. Paying benefits directly to tenants rather than attaching them to a particular housing unit also is desirable. This feature is recommended by economists who prefer that recipients retain a high degree of flexibility and choice in their housing decisions so as to yield the most efficient allocation of resources. Delivery of benefits directly to tenants also eliminates stigma, which can cause reduced program take-up or potential discrimination by landlords.

3.3 Income Tax and Non-Refundable Tax Credits

3.3.1 Federal Income Tax

The Canadian federal income tax system has four income tax brackets as outlined in Table 3.4 for the 2008 tax year. Importantly for the study of low-income families, annual income under \$37,885 is taxed at 15 per cent.

Table 3.5 Canada Federal Income Tax Brackets

Annual Income	Tax Rate
less than \$37,885	15%
\$37,885 to \$75,769	22%
\$75,769 to \$123,184	26%
over \$123,184	29%

Source: Canada Revenue Agency (2008e).

The tax return also offers non-refundable tax credits in order to reduce the tax burden on low-income tax filers. In an explanation simplified to match the parameters of the scenarios set out in the next section, a person adds up the basic personal amount of \$9,600,³ \$2,038 for each dependent child and all Canada Pension Plan (CPP) and Employment Insurance (EI) payments, multiplies the total by 15 per cent and deducts this amount from his or her tax payable. Because these tax credits are non-refundable, credits can reduce the tax payable to zero but cannot result in a balance owing to the tax filer (Canada Revenue Agency 2008h).

The 2009 federal budget announced that the basic personal amount will be increased to \$10,320 and the upper limits of the lowest two tax brackets will be increased to \$40,726 and \$81,452 respectively (Department of Finance Canada 2009, p. 109). These changes took effect January 1, 2009. As my study focuses on the 2008 tax year, I use the 2008 figures in the scenarios modelled later in this study.

3.3.2 Provincial Income Tax

The British Columbia provincial income tax system has five income tax brackets as shown in Table 3.5. The lowest rate of 5.06 per cent applies to annual income under \$35,016.

³ A tax filer can claim an additional basic personal exemption of \$9,600 for their spouse or common-law partner if that individual is earning less than the basic personal amount, but the current study focuses on couples where both partners are working full-time so that both have earnings exceeding that level.

Table 3.6 *British Columbia Income Tax Brackets*

Annual Income	Tax Rate
less than \$35,016	5.06%
\$35,016 to \$70,033	7.70%
\$70,033 to \$80,406	10.50%
\$80,406 to \$97,636	12.29%
over \$97,636	14.70%

Source: Canada Revenue Agency (2008e).

As in the federal tax system, B.C. offers non-refundable tax credits. The calculation adds up the basic personal amount of \$9,189 and all CPP and EI payments, multiplies the total by 5.06 per cent and deducts this amount from the tax payable. Single parents can also add to the calculation \$7,868 for each dependent child under the age of 18 (any income the child earns over \$787 is subtracted from this amount). An additional measure designed to support low-income earners is the B.C. Tax Reduction, which is a non-refundable tax credit of \$381 minus 3.2% of income over \$16,946. Again, tax credits are non-refundable and can result in a provincial income tax of zero, but not a balance owing.

3.4 Payroll Deductions

3.4.1 Canada Pension Plan and Employment Insurance

For the 2008 tax year, workers paid 4.95 per cent of their annual labour earnings between \$3,500 and \$44,900 as a premium to the Canada Pension Plan (CPP) (Canada Revenue Agency 2008f). As mentioned above, portions of this payment are deductible from federal and provincial taxes owing. Also for the 2008 tax year, workers paid 1.73 per cent of the first \$41,100 of their annual earnings into the national Employment Insurance (EI) program (Canada Revenue Agency 2008g). As with the CPP payment, portions of the EI premium are deductible from the federal and provincial income tax payments as outlined above.

4: Methodology: Scenario Modelling

My study aims to determine which policies best reduce the gap between earnings and the cost of a basic living standard for low-income working families. I begin by constructing a model that uses wages, government benefits and deductions as variables to compute the differential between net income and basic expenses. I then introduce four hypothetical households representing working families at risk of being in low income. I explain the model and each household more fully in this section, and in following sections I apply the model to each hypothetical family under different policy alternatives and compare the outcomes.

4.1 The Model

It is important to understand how various government benefit programs and taxes affect net income. The model summarized in Table 4.1 includes major federal and provincial benefits as well as income tax, payroll deductions and non-refundable tax credits for the 2008 tax year. The resulting calculation of net income is compared to the after-tax LICO in order to estimate a family's surplus or shortfall of income under a particular policy alternative.

Table 4.7 *Net Household Income Model*

Variable	Calculation or Source of Information
Income from Wages	hourly wage x 37.5 hours x 50 weeks
Vacation Pay	4% of wages
TOTAL INCOME	wages + vacation pay
WITB	calculated using the WITB Online Calculator (2008 tax year)
NCBS Benefits	calculated using the Child and Family Benefits Online Calculator (July 2008 – June 2009 version)
GST Credit	calculated using the Child and Family Benefits Online Calculator (July 2008 – June 2009 version)
MSP Premium Assistance	calculated using the 2008 Application for Regular Premium Assistance
RAP	calculated using 2008 RAP formula (see section 3.2.5)
TOTAL BENEFITS	sum of above benefits
Federal Income Tax	15% on first \$37,885 (2008 tax year)
Provincial Income Tax	5.06% on first \$35,016 (2008 tax year)
EI Premium	1.73% on first \$41,100 (2008 tax year)
CPP Premium	4.95% on income between \$3500 and \$44,900 (2008 tax year)
B.C. MSP Premium	full amount for family type (2008 tax year)
Federal Non-Refundable Tax Credits	from Schedule 1 of the 2008 T1 Special tax return
Provincial Non-Refundable Tax Credits	from form BC428 of the 2008 T1 Special tax return
B.C. Tax Reduction (non-refundable)	\$381 minus 3.2% of income over \$16,946 (2008 tax year)
TOTAL DEDUCTIONS	sum of above deductions
NET INCOME	Total Income + Total Benefits - Total Deductions
LICO	2007 after-tax LICO x 2008 annual Consumer Price Index of 1.023
DIFFERENTIAL	Net Income – LICO
DIFFERENTIAL %	Differential / LICO * 100

The first section of the model calculates the total gross income for a hypothetical household by adding the income from wages and vacation pay, equal to 4 per cent of wages. Income from wages is based on the current British Columbia minimum wage of \$8 per hour and is calculated based on a full-time work schedule of 37.5 hours per week and 50 weeks per year. It should be noted that this definition of ‘full-time’ work differs from that used in the census. Statistics Canada considers an individual to be working full-time if he or she works 30 hours or more per week for 49 or more weeks in the year (Statistics Canada 2003b). I have chosen to use

a more common definition of full-time work to avoid taking gross income to be significantly lower than is generally the case. The model does not include other sources of income because working-age families in low income have virtually no savings, investments or pensions.

The second section of the model estimates the total federal and provincial benefits received by a family from the benefit programs outlined in the previous section. The Working Income Tax Benefit (WITB) is calculated using the Canada Revenue Agency's *WITB Online Calculator* (2008d). The NCBS benefits (CCTB, NCB supplement, BCFB and BCEIB) and GST Credit are obtained from the *Child and Family Benefits Online Calculator*, which "provides an estimate of the amount of CCTB, GST/HST credit and/or any benefit or credit from related provincial or territorial programs to which (a claimant) may be entitled" (Canada Revenue Agency 2008b). The value for the provincial Medical Services Plan (MSP) premium assistance is determined using the *Application for Regular Premium Assistance* form (B.C. Ministry of Health Services 2008). Payments from B.C.'s Rental Assistance Program are calculated using the formula in Figure 3.1.

Several other government benefits for low-income families are not included in my model. For example, I am not considering the Universal Child Care Benefit (UCCB) because the children in the households I outline in the next section are over the age of six and are thus not eligible for this benefit; this also permits my analysis to ignore the presence of child care costs. I also do not look at British Columbia's Healthy Kids program because it covers expenses for dental care and prescription eyeglasses which are highly variable and do not occur in all families.

The total deductions are based on federal and provincial taxes, less non-refundable tax credits, as shown in the *2008 T1 Special* tax return for British Columbia (Canada Revenue Agency 2008h). As detailed earlier, for the relevant income range, the federal tax on income is 15 per cent, the provincial tax is 5.06 per cent, the EI premium is 1.73 per cent and the CPP premium is 4.95 per cent. The MSP premium is the full annual amount for the applicable family

type: \$648 for a single person, \$1,152 for a family of two and \$1,296 for a family of three or more. The federal and provincial non-refundable tax credits, as explained in the previous section, take into account a basic personal amount, a B.C. tax reduction provision, an amount for dependent children and the EI and CPP premiums paid (Canada Revenue Agency 2008h).

In the final section of the model, the net income is the sum of total income and total benefits less total deductions. This is an estimate of the after-tax income the family has available to spend on their basic needs and all other items. Rather than attempting to list and estimate the expenses for a family's basic needs (see Klein, et al. 2008 for such a study), I use the after-tax LICO as a proxy for expenses. The LICO is a valid proxy because as a measure of low income, it is intended to reflect the income below which a family is likely to experience difficulty affording the basic necessities. I use the after-tax measure rather than the before-tax measure as households must pay for goods in after-tax dollars. Because the LICOs for 2008 are not yet available, I have multiplied the 2007 after-tax LICO by the ratio of the 2008 to 2007 annual Consumer Price Index (CPI) of 1.023 (Statistics Canada 2009b). In the final step, the differential between income and expenses is found by subtracting the LICO from net income. This differential is also expressed as a percentage to facilitate comparison.

4.2 Four Hypothetical Households

Policy changes rarely affect all people equally. To understand the impact of my policy alternatives on low-income households with a variety of family structures, I will use the model to test each alternative under four scenarios: an unattached individual, a single parent with two children, a married couple with no children and a married couple with two children. In order to keep each scenario relatively simple and my analysis focused, I have made several assumptions.

The most contentious assumption is that all children are school age and annual child care expenses are zero. Child care, when needed, is a major portion of the family budget and it could

be argued that my decision not to consider these expenses fails to reflect the reality of many low-income families. This is a well-founded criticism, but it is not the purpose of this study to investigate policy alternatives for child care. Because my focus is on policies that the provincial government might pursue to narrow the gap between income and expenses for all low-income households, it is important to concentrate on expenses that are common to all households, regardless of whether they have children.

Other choices in constructing the scenarios have been made in order to highlight the greatest gaps in affordability. For example, I assume that each family lives in Metro Vancouver because the cost of living, particularly housing, is highest there. This affects the LICO used in the model since it varies by community size and also affects the RAP benefit because the eligible rent ceiling and maximum payments are higher for clients in Metro Vancouver. In a related point, I assume that each family is paying the maximum rent allowed under the RAP program (\$975 per month for a family of three or less or \$1,100 per month for a family of four or more). This assumption is justified by the fact that the average market rents for Metro Vancouver (\$880 per month for a one-bedroom apartment, \$1,124 for a two-bedroom and \$1,356 for a three-bedroom) according to the Canada Mortgage and Housing Corporation's Rental Market Report (CMHC 2008) are generally higher than the RAP rent ceilings. Many low-income households are likely to be renting units that are below average market rents so the RAP rent limits provide a more reasonable benchmark for use in this study. I also assume that all adults in the family work full-year, full-time at the minimum wage of \$8 per hour. This should provide me with a 'worst-case scenario' of the lowest possible income for full-time working families.

5: Policy Alternatives

Given the policy goal of reducing the gap between wages and expenses for low-income workers, there are two general strategies for addressing the problem: increase earnings and/or decrease the cost of basic needs. Many policy instruments relating to income and taxation are under federal jurisdiction in Canada, but the provinces do have some tools available. On the income side, British Columbia has the power to adjust its minimum wage, while on the expense side, the province can pursue policies that make housing more affordable. In this section, I will outline four policy alternatives: the status quo, an income-enhancing policy, a policy to reduce the cost of housing and an option that combines the two strategies. I do not consider policies to reduce provincial income tax, since in 2008 any tax payable by full-time minimum wage workers was offset by non-refundable tax credits.

5.1 Policy Alternative 1: Status Quo

The first policy alternative is to not change any of the programs under provincial jurisdiction. While there has been some pressure to increase the minimum wage, worries about the cost and potential disemployment effects mean that many businesses oppose the move. The province is addressing housing affordability through the Rental Assistance Program introduced in 2006, and some would argue that this policy should be given time to work before any changes are made. These arguments make doing nothing a valid option. As such, I will apply the model described in the previous section to examine the outcome for each hypothetical household under the status quo.

5.2 Policy Alternative 2: Increase Minimum Wage to \$10 per Hour

British Columbia's minimum wage of \$8 per hour has not been increased since November 1, 2001 (Human Resources and Social Development Canada 2008). The real value of this wage has declined over time because it has not been adjusted for inflation. If the minimum wage had been adjusted for subsequent inflation in British Columbia, it would have been \$9.19 in 2008 (author's calculation done using Consumer Price Index figures from Capital Regional District 2009). The average hourly wage in B.C. was \$17.98 in 2001 (B.C. Ministry of Labour and Citizens' Services 2009) and \$21.31 per hour in January 2008 (Statistics Canada 2009c). If the province's minimum wage had been adjusted according to this 18.5 per cent increase, it would have been \$9.48 per hour at the beginning of 2008. As previously mentioned, B.C.'s is the second-lowest minimum wage in the country. Not only is B.C.'s minimum wage low by this comparison; Canada's minimum wages are already among the lowest for advanced economies (Saunders 2005).

Assuming a standard full-time work schedule of 37.5 hours per week and 50 weeks per year, minimum wage workers in B.C. earn \$15,000 per year before tax (or \$15,600 including vacation pay). As seen in the examination of the status quo in Table 7.1, after taxes and existing government benefits are accounted for a single person falls over \$4,000 short of Statistics Canada's after-tax LICO. It is highly likely that this person would experience affordability problems in securing adequate food, shelter and clothing. Families with children have net incomes slightly above the LICO for their household size, but the challenges in providing for the family's basic needs remain, and all the negative effects of living in low income impact not only the adults, but the development and life chances of the children as well.

Keeping in mind that most studies have found little or no risk to employment for adult workers from increases to the minimum wage, some economists suggest that there is room for a minimum wage increase in British Columbia (Saunders 2005, Klein, et al. 2008). Such an

increase, especially if it is substantial, would affect a larger share of the population than is at first obvious. “While only 4.6 per cent of B.C.’s paid employees earned the current minimum wage in 2006, a recent Statistics Canada study shows that more than 16 per cent of B.C. employees – 300,000-plus people – worked for less than \$10 per hour in 2007. Nearly half of this larger population (45 per cent) are over 25 years of age” (Klein, et al. 2008, p. 28).

5.3 Policy Alternative 3: Expand RAP Eligibility to Include Households Without Children

It is clear that British Columbia has ongoing difficulties in providing affordable housing to low-income individuals and families. Some 15.8 per cent of households are in core housing need, meaning that they cannot access adequate housing for less than 30 per cent of their household income (B.C. Housing 2006). “These households simply do not have enough income to pay rent in the private market – there is a gap between their rent and what they can afford to pay” (B.C. Housing 2006, p. 11).

Because only families with at least one dependent child are eligible, RAP benefits are targeted at those households thought to need the most assistance. However, this eligibility restriction discriminates against low-income individuals and couples who do not have children. This constitutes a horizontal inequity because childless households may be equally in need of assistance. When the RAP was introduced in 2006, over 220,000 households were in core housing need (B.C. Housing 2006, p. 2). However, by 2008 only 4,500 households were receiving RAP payments (B.C. Housing 2008b). This low take-up rate could be due to a lack of information among eligible households, so B.C. Housing has initiated a major information campaign. Another possible explanation could be overly restrictive criteria. Making the RAP available to households without children would eliminate a major source of horizontal inequity and allow many more low-income households to access a benefit that is clearly needed.

5.4 Policy Alternative 4: Increase Minimum Wage to \$10 per Hour and Raise RAP Income Limits by \$10,000

This alternative involves a combination of an income-enhancing strategy and a program to reduce the cost of basic needs. As is demonstrated in the evaluation of Policy Alternative 2 in the next section (see Table 7.2), the effectiveness of increasing the minimum wage to \$10 per hour is hampered by the phasing-out of federal and provincial government benefits. Income from wages is increased substantially, which reduces the level of assistance for which the household is eligible and causes payments from the WITB, NCB system, GST credit, MSP premium assistance and RAP to decrease. The total claw-back rate based on all these benefits added together can be as high as 60.6 per cent in the case of the married couple with children. After increased income and payroll taxes are also taken into account, the METR rises to 85.5 per cent for the same household, meaning that only 14.5 per cent of the additional income earned from the increased minimum wage is retained.

The effectiveness of raising the minimum wage can be increased by introducing modifications to existing benefit programs designed to reduce the METR and allow households to keep a larger share of their increased income. This can be accomplished by reducing the phase-out rate of benefits so that they are clawed-back more slowly or by shifting the income levels at which claw-backs begin (and raising the ceiling at which benefits are eliminated). Because this study focuses on policy alternatives available to the provincial government, I will examine alterations that could be made to the B.C. RAP. The RAP phase-out rate with earnings increases is already fairly low, so I propose increasing the income level at which households are eligible for a particular rate of assistance by \$10,000. The new formula is summarized in Figure 5.1.

Figure 5.2: Modified B.C. Rental Assistance Program Formula

$$\text{Rent Gap} = \text{Actual Rent (or Max. Rent)} - 30\% \text{ of household income}$$

$$\begin{array}{lll} \text{Percentage of} & 90\% & \text{if household income} \leq \$20,000 \\ \text{Rent Gap Covered} = & 90\% - .0022(\text{income} - \$20,000) & \text{if } \$20,000 < \text{income} < \$45,000 \\ & 0\% & \text{if household income} \geq \$45,000 \end{array}$$

It should be noted that the only change I propose is to the formula for calculating benefits, not to eligibility requirements (as I examine in Policy Alternative 3). Under this policy alternative, unattached individuals and couples without children continue to be ineligible for the RAP.

6: Evaluation Framework

Each of the proposed policy options yields different outcomes for the households in my scenarios. It is helpful to evaluate these outcomes in relation to specific types of impacts so that tradeoffs can be made explicit. In designing and selecting policies to reduce the gap between income and expenses for low-income workers, policy makers must consider the effectiveness, cost, equity, public acceptability and administrative feasibility of the proposal. In this section I explain each of these criteria in detail and summarize them in Table 6.1. The policy alternatives are evaluated according to this framework in the following section.

First, effectiveness evaluates how well the policy alternative achieves the policy goal of reducing the gap between income and basic expenses for low-income working families. This is measured by the percentage differential between the family's net income (after government benefits and deductions) and the after-tax LICO (a proxy for basic household expenses) for that family. The information is produced by applying the model described in the previous section to each alternative. The percentage differential is used in two ways. First, the policy is considered effective for a particular household if the differential is greater than under the status quo, and will be considered more successful the higher the number. Second, the sum of the differentials for the four hypothetical households will be compared to see which of the alternatives results in the greatest overall improvement. The LICO is not a poverty line, and the policy goal is not to raise all workers above the LICO, but to reduce the gap between income and expenses (as represented by the LICO). This method of measuring effectiveness allows comparison of the relative effectiveness of the proposed policy alternatives.

Next, the cost of the program must be assessed. This includes the costs involved in implementing the policy as well as incremental annual costs. It is important to recognize that the costs of a government program may be paid by stakeholders other than government. For this reason, I will consider the ongoing costs to business as well as to the provincial government. Costs are estimated in dollars, allowing straightforward comparison of alternatives. Statistics Canada data is used to estimate the number of people or households eligible to receive the additional benefit and this number is multiplied by the estimated value of the benefit. It should be noted that this method of estimating cost is very rough and the results should be considered 'order of magnitude' estimates rather than firm anticipated costs.

As previously mentioned, policy makers often have more than one objective especially in areas of social policy. They have social goals as well as economic efficiency goals. It is difficult to design policy that impacts all stakeholders equally and the more targeted the program the greater the inequities. The equity criterion is designed to gauge these distributional impacts on both businesses and on individuals receiving government benefits. Evaluation of the impact on business analyzes whether the costs of the policy (and therefore the productivity and profitability impacts) are imposed on all businesses equally or whether the effects differ by factors such as industry, geography or size of business. Consideration of the effects on individuals will evaluate the degree to which people with similar characteristics such as age, education, industry and training are impacted similarly or experience different outcomes. This information will come from the analysis of the model applied to each policy alternative.

It is often said that policy is not done in a vacuum. This alludes to the fact that political decision-makers must always take into account public support for a policy option. Public support, or the lack of it, can be so influential as to prevent adoption of policy options that perform well on other measures. The public acceptability criterion takes into account the views of the relevant stakeholders: businesses in British Columbia as represented by the Canadian

Federation of Independent Business (CFIB) and the Canadian Federation of Apartment Associations (CFAA), public and private sector unions as represented by the British Columbia Federation of Labour (BCFL) and non-union workers. Taxpayers are represented by the Canadian Taxpayers' Federation (CTF) and the two main political parties that compete for taxpayers' votes: the B.C. Liberals and the B.C. New Democratic Party (NDP). The acceptability of each policy alternative will be measured by comparing the option to previously stated positions of each stakeholder as well as public opinion polls.

Finally, the administrative feasibility criterion examines technical barriers that might hinder the implementation of a particular policy. I consider whether the policy requires any new administrative structures or whether it can be implemented using the bureaucracy that already exists. I also assess whether administrators have the training and knowledge needed to implement and run the program or whether additional investment would be required.

In the following section, I evaluate the performance of each policy alternative against these criteria. I do not weight the criteria, nor do I rank alternatives in way that allows a score for each option to be tallied and compared. Rather, the purpose of this process is to make explicit the tradeoffs to be considered, as a policy that is successful in one area may not be successful in another. I analyze these tradeoffs in section 8 and make a recommendation for British Columbia based on this evaluation framework.

Table 6.8 Criteria and Measures for Evaluation

Criterion		Description	Measure
Effectiveness	Household Income	Percentage differential between net income and LICO	Change in percentage differential compared to status quo for each household
	Income of all Households	Percentage differential between net income and LICO	Sum of changes in percentage differential compared to status quo for all households
Cost	Implementation Cost	Total cost to government of implementing the policy	Estimated as 'minor' if no new administrative structures required, estimated in dollars otherwise
	Incremental Costs	Cost to government	Incremental annual program cost, in dollars
Cost to business			
Equity	Business	Impacts on businesses by industry, geography, size	Does the policy option impose costs on businesses equally?
	Individuals	Impacts on individuals by industry, age, education, skills/training	Does the policy option impact the income of individuals equally?
Public Acceptability	Business	Acceptability to CFIB and CFAA	Comparison of the policy option to stated positions
	Taxpayers	Acceptability to Canadian Taxpayers' Federation and B.C. political parties	
	Unions	Acceptability to public and private sector unions	
	Non-Union Workers	Acceptability to non-union workers	Public opinion polls
Administrative Feasibility		Ease of implementing and administering the policy option	Does the policy option require new administrative structures?
			Do administrators have necessary skills?

7: Policy Analysis

In this section, I apply the previously described evaluation framework to each policy alternative. I assess the outcomes against the standardized criteria and discuss the program design details that affect the results. A summary of this analysis can be found in Table 7.6. In the following section, I examine tradeoffs among criteria and recommend a course of action.

7.1 Evaluation of Policy Alternative 1: Status Quo

Table 7.1 presents the results of the net income model applied to the four households under status quo policies. The effectiveness of these current policies is measured by the differential between net income and the LICO. It can be seen that the differential ranges between -21.98 per cent for the unattached individual and 22.96 per cent for the married couple without children. Only one out of the four hypothetical households is below the LICO, which suggests that the status quo is reasonably effective in ensuring that low-income households can afford their basic needs. However, when compared to Policy Alternatives 2, 3 and 4, the status quo is the least effective of the four. This makes sense, considering that the alternatives were explicitly designed to improve on the status quo.

Table 7.9 Outcomes of Policy Alternative 1: Status Quo

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
	Unattached Individual	Single Parent, Two Children	Married Couple, No Children	Married Couple, Two Children
Income from Wages	\$15,000.00	\$15,000.00	\$30,000.00	\$30,000.00
Vacation Pay	\$600.00	\$600.00	\$1,200.00	\$1,200.00
TOTAL INCOME	\$15,600.00	\$15,600.00	\$31,200.00	\$31,200.00
WITB	\$0.00	\$1,123.99	\$0.00	\$0.00
NCBS Benefits	\$0.00	\$6,735.84	\$0.00	\$4,426.92
GST Credit	\$369.00	\$738.00	\$484.00	\$738.00
MSP Premium Assistance	\$648.00	\$1,296.00	\$230.40	\$1,036.80
RAP	\$0.00	\$5,453.00	\$0.00	\$1,665.00
TOTAL BENEFITS	\$1,017.00	\$15,346.83	\$714.40	\$7,866.72
Federal Income Tax	\$2,340.00	\$2,340.00	\$4,680.00	\$4,680.00
Provincial Income Tax	\$789.36	\$789.36	\$1,578.72	\$1,578.72
EI Premium	\$269.88	\$269.88	\$539.76	\$539.76
CPP Premium	\$598.95	\$598.95	\$1,197.90	\$1,197.90
B.C. MSP Premium	\$648.00	\$1,296.00	\$1,152.00	\$1,296.00
Federal Non-Refundable Tax Credits	-\$1,570.32	-\$2,181.72	-\$3,140.65	-\$3,752.05
Provincial Non-Refundable Tax Credits	-\$508.93	-\$789.36	-\$1,017.85	-\$1,017.85
B.C. Tax Reduction (non-refundable)	-\$280.43	\$0.00	-\$560.87	-\$560.87
TOTAL DEDUCTIONS	\$2,286.51	\$2,323.11	\$4,429.01	\$3,961.61
NET INCOME	\$14,330.49	\$28,623.72	\$27,485.39	\$35,105.11
LICO	\$18,367.00	\$27,836.00	\$22,354.00	\$34,727.00
DIFFERENTIAL (Net Income – LICO)	-\$4,036.51	\$787.72	\$5,131.39	\$378.11
DIFFERENTIAL %	-21.98%	2.83%	22.96%	1.09%

Due to the fact that the status quo policies are already in effect, this policy alternative bears no implementation cost. Similarly, ongoing costs to government and to business are zero because this criterion measures *incremental* costs of the program compared to the status quo. Needless to say, the status quo policy alternative performs best on the cost criterion relative to the other options.

In assessing the equity implications of the status quo for business, I considered whether the impacts of the policy are imposed on all businesses equally or whether the effects differ by factors such as industry, geography or size of business. The current minimum wage applies to all

businesses (excluding a very few special cases), but this does not guarantee equitable treatment. Some businesses may operate in industries where the supply of suitable workers is high (for example unskilled workers in many service occupations) and the free market hourly wage would be lower than \$8 per hour. These businesses are more adversely affected by the minimum wage than are businesses that would have to pay wages close to or above the existing minimum wage regardless.

Assessing the equity implications for individuals involves examining the degree to which people with similar characteristics such as age, occupation, education and training are impacted similarly or experience different outcomes under the status quo. The minimum wage applies equally to all workers regardless of their age, education, industry and training. (I am ignoring the training wage for inexperienced workers because my scenarios assume that all workers are making \$8 per hour.) However, because the RAP program is targeted at families with children, it implicitly discriminates against low-income individuals and couples without children.

It is expected that the status quo policies would enjoy a high degree of support from stakeholders in order to have been implemented in the first place. This appears to hold true for the business community, which opposes a minimum wage increase (Canadian Federation of Independent Business 2008) and values predictability in government programs in general. The fact that B.C.'s minimum wage has not been increased since 2001 means that its real value has been declining at the same time as the cost of living in the province, particularly the cost of housing, has been rising. Both union and non-union workers have expressed increased concern about the ability of low-income households to afford basic necessities and have begun to advocate changes to the minimum wage and benefit policies (B.C. Federation of Labour 2006, *ibid* 2007). My overall assessment is that the status quo has only moderate support, and that support is decreasing.

Unsurprisingly, the status quo rates highest for administrative feasibility. The policies are already in place, and they are supported by the governing party and the bureaucracy. Examination of the B.C. government website suggests that any policy changes under consideration are incremental at most. All of the institutions necessary to administer the current programs are in place and officials possess the skills needed to provide the benefits and services.

7.2 Evaluation of Policy Alternative 2: Increase Minimum Wage

As expected, an increase in the minimum wage from \$8 per hour to \$10 per hour results in a significant increase in employment income for each of the households. After accounting for taxes and benefits, all of the households are better off than under the status quo; the differentials range from -6.03 per cent for the unattached individual to 46.79 per cent for the married couple without children. The increase in net income is substantial for those households but minimal for the two households with children. Closer examination of Table 7.2 shows that while those families saw their employment income increase, benefits such as the WITB, CCTB, GST credit, MSP premium assistance and the RAP began to be phased-out. The single parent with two children lost \$2,048.50 in benefits while the married couple with children lost \$4,725.60, representing a total benefit claw-back rate of 52.5 and 60.6 per cent respectively. After counting the additional income and payroll taxes paid on the higher earnings, the METRs rise to 73.2 and 85.5 per cent. This explains why each household kept so little of the extra income earned and is consistent with findings that there is “little evidence that increases in the minimum wage significantly reduce poverty rates among the working poor” (Burkhauser and Sabia 2007, p262). For this reason, and because the unattached individual is still living on less than the LICO, I consider this policy alternative to be only partially successful on the effectiveness criterion.

Table 7.10 Outcomes of Policy Alternative 2: Increase Minimum Wage

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
	Unattached Individual	Single Parent, Two Children	Married Couple, No Children	Married Couple, Two Children
Income from Wages	\$18,750.00	\$18,750.00	\$37,500.00	\$37,500.00
Vacation Pay	\$750.00	\$750.00	\$1,500.00	\$1,500.00
TOTAL INCOME	\$19,500.00	\$19,500.00	\$39,000.00	\$39,000.00
WITB	\$0.00	\$486.49	\$0.00	\$0.00
NCBS Benefits	\$0.00	\$6,735.84	\$0.00	\$2,701.92
GST Credit	\$369.00	\$738.00	\$185.20	\$439.20
MSP Premium Assistance	\$648.00	\$1,296.00	\$0.00	\$0.00
RAP	\$0.00	\$4,042.00	\$0.00	\$0.00
TOTAL BENEFITS	\$1,017.00	\$13,298.33	\$185.20	\$3,141.12
Federal Income Tax	\$2,925.00	\$2,925.00	\$5,850.00	\$5,850.00
Provincial Income Tax	\$986.70	\$986.70	\$1,973.40	\$1,973.40
EI Premium	\$337.35	\$337.35	\$674.70	\$674.70
CPP Premium	\$792.00	\$792.00	\$1,584.00	\$1,584.00
B.C. MSP Premium	\$648.00	\$1,296.00	\$1,152.00	\$1,296.00
Federal Non-Refundable Tax Credits	-\$1,609.40	-\$2,220.80	-\$3,218.81	-\$3,830.21
Provincial Non-Refundable Tax Credits	-\$522.11	-\$986.70	-\$1,044.22	-\$1,044.22
B.C. Tax Reduction (non-refundable)	-\$299.27	\$0.00	-\$598.54	-\$598.54
TOTAL DEDUCTIONS	\$3,258.27	\$3,129.55	\$6,372.54	\$5,905.14
NET INCOME	\$17,258.73	\$29,668.78	\$32,812.66	\$36,235.98
LICO	\$18,367.00	\$27,836.00	\$22,354.00	\$34,727.00
DIFFERENTIAL (Net Income – LICO)	-\$1,108.27	\$1,832.78	\$10,458.66	\$1,508.98
DIFFERENTIAL %	-6.03%	6.58%	46.79%	4.35%

Implementation costs for a minimum wage increase are expected to be minor. The necessary infrastructure is in place and all that is needed is an information campaign to ensure that employers are aware of the change. Incremental costs to government should also be minor, although I would anticipate an increase in revenue due to the income taxes paid on the higher wages. The revenue increase to the British Columbia government would be small, however. Table 7.2 demonstrates that non-refundable tax credits and the B.C. Tax Reduction still erase all Provincial Income Tax owing for the single parent, while unattached individuals pay \$165.32 more than they did under the status quo and the two married households each pay \$330.64 more.

Most of the cost of this policy alternative would be borne by businesses, and it can only be estimated here in very rough terms. In 2007, the number of workers in B.C. earning the minimum wage was approximately 62,600, or 3.4 per cent of the total work force (Godin and Veldhuis 2009, p. 3). If all of these people worked full-year, full-time (37.5 hours per week, 50 weeks per year), an increase of \$2 per hour would cost employers \$234,750,000. Of course, this assumption is unreasonable because a much greater share of minimum wage jobs are part-time than full-time. My estimate, however, does not account for people earning between \$8 and \$10 per hour who would see their wages raised to the new minimum, or for workers earning just above \$10 per hour who would also get raises as employers seek to maintain their wage structure. At best, this estimate should be considered a very rough order-of-magnitude approximation purely for the purposes of comparing policy options. While businesses can pass some of their increased labour costs on to consumers by raising prices, it is clear that increasing the minimum wage is the lowest-rated alternative in terms of the cost to business.

The policy option also performs poorly on the equity criterion. Businesses are not all impacted equally as only those currently paying at or just above the new minimum wage are affected. Businesses that already pay well above the minimum wage are not affected at all. Due to the previously cited economic research on the impact of minimum wage increases on employment, I do not anticipate significant disemployment among adults. It is likely, however, that some amount of youth disemployment will occur, meaning the policy impacts age groups differently. As noted in Section 2.3.1, the elasticity of teenage employment is likely to be -0.1 to -0.3, meaning that a 10 per cent increase in the minimum wage is likely to result in a 1 to 3 per cent reduction in teenage employment (Gunderson 2005, p. 25). The disemployment due to a 25 per cent minimum wage increase (from \$8 per hour to \$10 per hour) is reasonably expected to be much higher. One possible response is to protect youth employment by legislating a lower minimum wage for younger workers. However, such a law would likely contravene the Canadian

Charter of Rights and Freedoms section 15 that prohibits discrimination based on age. Another response is to accept some teenage disemployment based on the fact that younger workers often live with their families and are less likely to be supporting themselves or children than are older workers. The benefits of the increased minimum wage to older workers may outweigh the disemployment of teen workers.

It could also be said that workers whose wages are increased will experience different *percentage* increases depending on their original wage. For example, a worker going from \$8 per hour to \$10 per hour receives a 25 per cent increase while a worker going from \$9.50 per hour to \$10 per hour receives a 5 per cent increase. This discriminates against low-skilled workers who are slightly more experienced and earning a wage rate above \$8 but below \$10.

The evaluation of this policy alternative on the public acceptability criterion is decidedly mixed. The British Columbia Federation of Labour (BCFL), a collection of public and private sector unions, is actively campaigning to raise the minimum wage to \$10 per hour. They cite a poll conducted in by Strategic Communications in November 2006 that found that 79 per cent of British Columbians support the policy (B.C. Federation of Labour 2006). For this reason, I have ranked the minimum wage increase as a preferred option for these two groups. Alternatively, the Canadian Taxpayers' Federation (CTF) favours tax cuts to help low-income households, even though many low-income households pay little, if any, income tax. The two main provincial political parties are split on the issue, with the New Democratic Party (NDP) campaigning on a promise to raise the minimum wage to \$10 (B.C. New Democratic Party 2009) and the B.C. Liberals preferring to support low income workers through tax cuts and benefits (B.C. Liberal Party 2009). The Canadian Federation of Independent Business (CFIB) is officially opposed to increasing the minimum wage to \$10, although interestingly only 56 per cent of their members are opposed to the proposal and 34 per cent are actually in favour (Canadian Federation of

Independent Business 2008). I have ranked this option as the least preferred alternative for business.

Finally, the minimum wage proposal ranks well on administrative feasibility. The institutions, skills and training needed to implement and run this program are similar to those needed for the status quo.

7.3 Evaluation of Policy Alternative 3: Expand RAP Eligibility

The third policy alternative involves expanding the eligibility for B.C.'s Rental Assistance Program (RAP) to include individuals and families without dependent children. Table 7.3 shows the effect of the change for each household. Understandably, there is no impact on the two families with children as they already receive RAP benefits, but the other two household types gain. For the first time, the unattached individual is above the LICO with a differential of 7.71 per cent. The married couple without children is 27.50 per cent above the LICO. I consider the overall effectiveness to be mixed because while all households are above the LICO, only one (the unattached individual) experiences a significant improvement over the status quo.

Table 7.11 Outcomes of Policy Alternative 3: Expand RAP Eligibility

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
	Unattached Individual	Single Parent, Two Children	Married Couple, No Children	Married Couple, Two Children
Income from Wages	\$15,000.00	\$15,000.00	\$30,000.00	\$30,000.00
Vacation Pay	\$600.00	\$600.00	\$1,200.00	\$1,200.00
TOTAL INCOME	\$15,600.00	\$15,600.00	\$31,200.00	\$31,200.00
WITB	\$0.00	\$1,123.99	\$0.00	\$0.00
NCBS Benefits	\$0.00	\$6,735.84	\$0.00	\$4,426.92
GST Credit	\$369.00	\$738.00	\$484.00	\$738.00
MSP Premium Assistance	\$648.00	\$1,296.00	\$230.40	\$1,036.80
RAP	\$5,453.00	\$5,453.00	\$1,015.00	\$1,665.00
TOTAL BENEFITS	\$6,470.00	\$15,346.83	\$1,729.40	\$7,866.72
Federal Income Tax	\$2,340.00	\$2,340.00	\$4,680.00	\$4,680.00
Provincial Income Tax	\$789.36	\$789.36	\$1,578.72	\$1,578.72
EI Premium	\$269.88	\$269.88	\$539.76	\$539.76
CPP Premium	\$598.95	\$598.95	\$1,197.90	\$1,197.90
B.C. MSP Premium	\$648.00	\$1,296.00	\$1,152.00	\$1,296.00
Federal Non-Refundable Tax Credits	-\$1,570.32	-\$2,181.72	-\$3,140.65	-\$3,752.05
Provincial Non-Refundable Tax Credits	-\$508.93	-\$789.36	-\$1,017.85	-\$1,017.85
B.C. Tax Reduction (non-refundable)	-\$280.43	\$0.00	-\$560.87	-\$560.87
TOTAL DEDUCTIONS	\$2,286.51	\$2,323.11	\$4,429.01	\$3,961.61
NET INCOME	\$19,783.49	\$28,623.72	\$28,500.39	\$35,105.11
LICO	\$18,367.00	\$27,836.00	\$22,354.00	\$34,727.00
DIFFERENTIAL (Net Income – LICO)	\$1,416.49	\$787.72	\$6,146.39	\$378.11
DIFFERENTIAL %	7.71%	2.83%	27.50%	1.09%

Costs related to implementation of the expanded RAP program are relatively minor because the machinery of the program itself does not need to change. B.C. Housing would need to carry out an information campaign to make newly-eligible low-income households aware of the benefit. I do not anticipate any incremental costs to business as the expenditure for the RAP is borne by the provincial government. These costs to government, however, are likely to be very significant. In 2005, 260,915 unattached individuals in B.C. earned less than \$35,000 (the income threshold for the RAP) (Statistics Canada 2008b). In the same year, 84,855 couples without children earned less than \$35,000 (Statistics Canada 2008c). Assuming that all of these

newly-eligible households received the same benefit payment as their counterparts with children, the incremental cost to the provincial government would approach \$1.6 billion. Given that the current estimated take-up rate for the RAP program is approximately 2 per cent, the actual figure could be as low as \$31 million. Many factors are not included in this estimate, notably the fact that households will in reality receive very different benefit levels. Since I am seeking only an order-of-magnitude estimate for the purposes of comparison, and this policy alternative is clearly the most expensive option in terms of government expenditure, I will not attempt to refine the cost estimate further.

Expanding RAP eligibility ranks most favourably of the four policy alternatives on the equity criterion. Most businesses would be unaffected by the change, and landlords and property management companies would be impacted equally. The program is beneficial to the equity of low-income households because it removes the existing inequality caused by the exclusion of individuals and couples without children.

The public acceptability criterion is difficult to measure because many organizations do not have a stated position on the matter due to low overall awareness of the program. The CFIB, for example, have not taken a stance on the issue of rental assistance subsidies. The Canadian Federation of Apartment Associations (CFAA), representing property managers and landlords, is actively campaigning for portable housing allowances such as the RAP (Canadian Federation of Apartment Associations 2008). If I infer that they would support the expansion of an already existing program, I can rank this alternative the best for acceptability by business. The Canadian Taxpayers' Federation predictably favours tax credits over subsidies, but does prefer portable housing allowances over social housing or rent controls. Unions and the general public have no stated position on the issue. Because there is no clear activism for or against the expansion of the RAP, I am ranking it neither the best nor the worst option on public acceptability.

The proposed changes to RAP eligibility do not present major administrative challenges, although some forms and procedures would need to be adapted to remove the test for dependent children. Administrators already have the necessary skills and training to implement the changes and continue to operate the program.

7.4 Evaluation of Policy Alternative 4: Increase Minimum Wage and Raise RAP Income Limits

The final policy alternative involves both increasing the minimum wage and raising RAP thresholds by \$10,000. The impact of the policy on the net income of the four hypothetical households is summarized in Table 7.4.

Table 7.12 Outcomes of Policy Alternative 4: Increase Minimum Wage and Raise RAP Income Limits

	Scenario 1	Scenario 2	Scenario 3	Scenario 4
	Unattached Individual	Single Parent, Two Children	Married Couple, No Children	Married Couple, Two Children
Income from Wages	\$18,750.00	\$18,750.00	\$37,500.00	\$37,500.00
Vacation Pay	\$750.00	\$750.00	\$1,500.00	\$1,500.00
TOTAL INCOME	\$19,500.00	\$19,500.00	\$39,000.00	\$39,000.00
WITB	\$0.00	\$486.49	\$0.00	\$0.00
NCBS Benefits	\$0.00	\$6,735.84	\$0.00	\$2,701.92
GST Credit	\$369.00	\$738.00	\$185.20	\$439.20
MSP Premium Assistance	\$648.00	\$1,296.00	\$0.00	\$0.00
RAP	\$0.00	\$5,265.00	\$0.00	\$723.00
TOTAL BENEFITS	\$1,017.00	\$14,521.33	\$185.20	\$3,864.12
Federal Income Tax	\$2,925.00	\$2,925.00	\$5,850.00	\$5,850.00
Provincial Income Tax	\$986.70	\$986.70	\$1,973.40	\$1,973.40
EI Premium	\$337.35	\$337.35	\$674.70	\$674.70
CPP Premium	\$792.00	\$792.00	\$1,584.00	\$1,584.00
B.C. MSP Premium	\$648.00	\$1,296.00	\$1,152.00	\$1,296.00
Federal Non-Refundable Tax Credits	-\$1,609.40	-\$2,220.80	-\$3,218.81	-\$3,830.21
Provincial Non-Refundable Tax Credits	-\$522.11	-\$986.70	-\$1,044.22	-\$1,044.22
B.C. Tax Reduction (non-refundable)	-\$299.27	\$0.00	-\$598.54	-\$598.54
TOTAL DEDUCTIONS	\$3,258.27	\$3,129.55	\$6,372.54	\$5,905.14
NET INCOME	\$17,258.73	\$30,891.78	\$32,812.66	\$36,958.98
LICO	\$18,367.00	\$27,836.00	\$22,354.00	\$34,727.00
DIFFERENTIAL (Net Income - LICO)	-\$1,108.27	\$3,055.78	\$10,458.66	\$2,231.98
DIFFERENTIAL %	-6.03%	10.98%	46.79%	6.43%

All of the households are better off than under the status quo. The net income of the unattached individual is only 6.3 per cent below the LICO -- the second-best outcome among the four policy alternatives. The changes to the RAP program are successful in allowing the eligible households to keep more of their increased employment income than under Policy Alternative 2 (minimum wage increase only). The benefit claw-back rates and METRs for the two policy alternatives that increase household earnings are shown in Table 7.5. The METRs under Policy Alternative 2 are 73.2 per cent for the single parent household and 85.5 per cent for the married couple with children. Under Policy Alternative 4, the METRs fall to 41.8 per cent and 76.2 per cent

respectively. Because this option results in the second-best outcome for the unattached individual and the best outcome for all other households, I rank this alternative highest in terms of effectiveness.

Table 7.13 Marginal Effective Tax Rates of Policy Alternatives 2 and 4

		Unattached Individual	Single Parent	Married Without Children	Married With Children
Policy Alternative 2: Increase Minimum Wage	Benefit Claw-Back Rate	0%	52.5%	6.8%	60.6%
	METR	24.9%	73.2%	31.7%	85.5%
Policy Alternative 4: Increase Minimum Wage and Raise RAP Ceiling	Benefit Claw-Back Rate	0%	21.0%	6.8%	51.3%
	METR	24.9%	41.8%	31.7%	76.2%

As with the previous alternatives, implementation costs are expected to be minor. Incremental costs to business are the same as under Policy Alternative 2: an order-of-magnitude estimate of \$230 million. Incremental costs to government would actually *decrease*, making it the best option on this criterion. The decrease occurs because existing RAP beneficiaries experience a reduction in payments due to their increased employment income. Some of this reduction is offset by the changes to the formula that raise the income limit by \$10,000, but not all of it. Comparing the RAP benefits paid under the status quo (Table 7.1) to those paid under the adjusted program (Table 7.4), the single parent household loses \$188 in annual payments while the married couple with children loses \$942. This policy alternative does not expand RAP eligibility to any new households as Policy Alternative 3 does, so the net result is a decrease in the cost to government.

This alternative does poorly on the equity criterion for the same reasons as Policy Alternative 2. Only businesses paying less than (or just above) \$10 per hour are affected by the minimum wage increase and workers are likely to be impacted differently depending on their age,

industry of work and experience level. I have ranked this alternative lowest on the individual equity criterion because of the differential effects of the minimum wage increase and because it does not remove the discrimination against households without children in the RAP as Policy Alternative 3 does.

The public acceptability criterion is difficult to assess because there is currently no widely-discussed proposal to accompany a minimum wage increase with offsetting changes to benefit programs so most stakeholder groups do not have a stated position. It is necessary to infer the likely views of business, taxpayers, unions and non-union workers from what is known of their positions on related issues. As stated earlier, the CFIB is marginally opposed to a minimum wage increase and the CFAA is supportive of housing allowances such as the RAP. There is little reason to expect that the CFAA would be opposed to the changes in RAP benefits, so I give the policy a neutral ranking on acceptability to business. The CTF has no stated position beyond calls for tax cuts, but taxpayers may support the slight reduction in RAP payments seen under this alternative. While the NDP is in favour of raising the minimum wage and the Liberals prefer other policies, neither party has a stated position on adjustments to the RAP. The BCFL supports the minimum wage increase and has no official position on the RAP. I have ranked the alternative highest in terms of acceptability among non-union workers because, in general, the public supports programs that target families with children and would likely support the fact that the changes to the RAP program maintain this focus.

As described earlier for Policy Alternative 2, the minimum wage proposal ranks well on administrative feasibility. The institutions, skills and training needed to implement and run this program are similar to those needed for the status quo.

7.5 The Policy Analysis Matrix

Table 7.14 Evaluation of Policy Alternatives

Criterion		Policy Alternative 1	Policy Alternative 2	Policy Alternative 3	Policy Alternative 4
		Status Quo	Increase Minimum Wage	Expand RAP Eligibility	Increase Minimum Wage and Raise RAP Ceiling
Effectiveness	Household Income	<i>no change</i>	unattached individual: + 15.95 single parent: + 3.75 MARRIED WITHOUT CHILDREN: + 23.83 married with children: + 3.26	UNATTACHED INDIVIDUAL: + 26.69 <i>single parent: no change</i> married without kids: + 4.54 <i>married with kids: no change</i>	unattached individual: + 15.95 SINGLE PARENT: +8.15 MARRIED WITHOUT CHILDREN: + 23.83 MARRIED WITH CHILDREN: + 5.34
	Income of all Households	<i>no change</i>	+ 46.79 percentage points	+ 34.23 percentage points	+ 53.27 PERCENTAGE POINTS
Cost	Cost to Implement	NONE	minor	minor	minor
	Incremental Costs to Government	none	no incremental cost, but some new revenue from higher income taxes	<i>order of magnitude estimate: \$31 million - \$1.6 billion</i>	NET DECREASE: ELIGIBLE HOUSEHOLDS RECEIVE LOWER RAP PAYMENTS
	Incremental Costs to Business	NONE	<i>order of magnitude estimate: \$230 million</i>	NONE	<i>order of magnitude estimate: \$230 million</i>
Equity	Business	industries with market wages below min wage impacted more than other industries	<i>only businesses paying less than \$10/hour are impacted</i>	MOST BUSINESSES UNAFFECTED, LANDLORDS EQUALLY IMPACTED	<i>only businesses paying less than \$10 per hour impacted by min wage increase</i>
	Individuals	RAP discriminates against individuals and families without children	youth disemployment, different rates of increase depending on initial wage	REMOVES EXISTING INEQUALITIES	<i>youth disemployment, different rates of increase depending on initial wage, RAP discriminates against households without children</i>

Criterion		Policy Alternative 1	Policy Alternative 2	Policy Alternative 3	Policy Alternative 4
		Status Quo	Increase Minimum Wage	Expand RAP Eligibility	Increase Minimum Wage and Raise RAP Ceiling
Effectiveness	Household Income	<i>no change</i>	unattached individual: + 15.95 single parent: + 3.75 MARRIED WITHOUT CHILDREN: + 23.83 married with children: + 3.26	UNATTACHED INDIVIDUAL: + 26.69 <i>single parent: no change</i> married without kids: + 4.54 <i>married with kids: no change</i>	unattached individual: + 15.95 SINGLE PARENT: +8.15 MARRIED WITHOUT CHILDREN: + 23.83 MARRIED WITH CHILDREN: + 5.34
	Income of all Households	<i>no change</i>	+ 46.79 percentage points	+ 34.23 percentage points	+ 53.27 PERCENTAGE POINTS
Public Acceptability	Business	generally supportive of current wage and housing policies	<i>CFIB members are 56 per cent opposed, 34 per cent in favour</i>	CFIB: no stated position CFAA: CAMPAIGNING FOR PORTABLE HOUSING ALLOWANCES	most CFIB members opposed to minimum wage increase, but CFAA supportive of RAP principles
	Taxpayers	B.C. LIBERALS IN POWER, SUPPORT STATUS QUO <i>B.C. NDP want higher minimum wage, greater housing supports</i>	<i>CTF and B.C. Liberals prefer lowering taxes to help low-income earners</i> \$10 MIN WAGE PART OF B.C. NDP PLATFORM	CTF prefers tax credits to subsidies, political parties have no stated position on expanding RAP	CTF has no stated position B.C. NDP SUPPORT \$10 MIN WAGE AND BENEFITS FOR WORKING FAMILIES <i>B.C. Liberals support status quo</i>
	Unions	<i>B.C. Federation of Labour is opposed to the status quo</i>	BCFL ACTIVELY CAMPAIGNING FOR THIS POLICY OPTION	no stated position	BCFL CAMPAIGNING FOR MINIMUM WAGE HIKE, NO POSITION ON RAP
	Non-Union Workers	<i>increasing concern about the ability of low-income workers to afford basics</i>	polls indicate increasing support for raising minimum wage	lack of knowledge about RAP, but public generally prefer benefits targeted at families with children	POLL SHOWS 79 PER CENT SUPPORT FOR RAISING MINIMUM WAGE, LIKELY SUPPORT FOR RAP FOCUS ON FAMILIES WITH CHILDREN
Administrative Feasibility	New Structures?	NO NEW STRUCTURES	NO NEW STRUCTURES	<i>requires removal of the test for dependent children</i>	NO NEW STRUCTURES
	Necessary Skills?	ALREADY HAVE SKILLS	ALREADY HAVE SKILLS	ALREADY HAVE SKILLS	ALREADY HAVE SKILLS

BLUE TEXT (CAPITALS) = best option
red text (italics) = worst option
black text (normal) = neither best nor worst

8: Trade-Off Assessment, Limitations and Recommendation

8.1 Trade-Offs

Table 7.6 presents the impacts of each policy alternative relative to the specified criteria. The alternative that performs the best on a particular criterion is represented in blue (capitalized) text and the alternative that ranks worst is in red (italicized) text. Black (normal) text indicates that the alternative is neither best nor worst. This system is not intended to provide a definitive ranking of the alternatives, and it is not appropriate to simply add the number of blue boxes and subtract the red to obtain an overall score. To do so would imply that each criterion is equally weighted, and I do not believe that this is appropriate. The colour coding is an aid for seeing where an option succeeds and where it fails, facilitating the identification of trade-offs.

Analysis of Table 7.6 reveals no single policy alternative that ranks best on all criteria. Significantly, none of the four options are entirely successful on the effectiveness criterion. By expanding RAP eligibility to include households without children, Policy Alternative 3 results in a large improvement for those households but does nothing to help those already eligible for the program. Raising the minimum wage to \$10 also helps individuals and couples without children but fails to raise unattached individuals above the LICO. Families with children see only minimal improvement under Policy Alternative 2 due to the fact that many of their government benefits are reduced or phased-out altogether. Even the highest-ranked Policy Alternative 4 leaves unattached individuals below the LICO and is only the second-best option for those households.

Policy Alternative 1, the status quo, ranks highly on many criteria due to inertia. It performs well on implementation cost, incremental costs and administrative feasibility simply because the policy is already in place. The most significant shortcoming of the status quo is in

effectiveness. Unattached individuals do poorly, families with children are just above the LICO and only married couples with children do well. This is expected because this situation is exactly the policy problem my study is designed to address. The proposed alternatives should (and do) represent an improvement on the effectiveness of the status quo.

Policy Alternative 2 is problematic because public opinion is divided on the subject of raising the minimum wage. Unions and other workers are strongly supportive while business and taxpayer groups are moderately opposed. The policy is also likely to impact businesses in low-wage sectors such as tourism, hospitality, and restaurants more than other businesses. There is a deeper equity issue in that “using minimum wages to curb poverty places the onus on employers to deal with a social issue the costs of which should be shared by society in general” (Gunderson 2005, p. 2). One might argue that if British Columbia decides to raise the incomes of its workers it should be done through tax credits and government benefits, allowing the cost to be spread among taxpayers rather than on business alone. I believe that this position could be countered if it could be demonstrated that raising the minimum wage to \$10 per hour would have a more significant impact on the bottom line for the households in my scenarios. Achieving this would entail adjustments to government benefits to raise income thresholds and reduce phase-out rates to enable workers to keep more of the extra income earned (as Policy Alternative 4 does). Some of the benefits in question are provincial, but many are under federal jurisdiction and extensive cooperation between the levels of government would be required to make a minimum wage increase more effective.

Policy Alternative 3 appears to be a fairly neutral option with few outright negatives and also few positives. A closer look, however, shows that one criterion on which this option performs poorly is the cost to government, and that this cost is potentially very large. While an expansion of the RAP currently faces no strong public or political opposition, it is very likely that this would change if it became known that the government was considering such an option.

Many would wonder about the wisdom of investing so much public money in subsidizing rent for low-income earners rather than spending the money on other priorities. Considering the households that would benefit from Policy Alternative 3 supports the theory that opposition would increase. Married couples without children receive over \$1,200 per year from the expanded RAP, but they do the best, by far, under the status quo and are less in need of assistance than some of the other households.

Policy Alternative 3 would provide unattached individuals with an additional \$5,453 per year compared to the status quo, and making them eligible for the RAP is the only alternative that results in raising their income over the LICO. However, living alone and earning minimum wage is a temporary situation in most people's lives. Often, unattached individuals are young adults and students who can expect to be earning more in the future. My scenario also does not take into account the number of these people who live with a roommate rather than alone. This arrangement substantially lowers expenses for rent. It is likely that the public would be opposed to providing a subsidy that allows people to live alone rather than share living space. This may amount to an over-consumption of housing as discussed earlier in this study. Moreover, two unattached individuals both earning full-time minimum wages living together could receive a total RAP benefit exceeding \$11,000 per year, more than enough to cover the full average rental cost of a one-bedroom apartment in the Vancouver area. The RAP would be challenged to distinguish between unattached individuals living alone versus living in shared quarters.

Policy Alternative 4 is either neutral or highest-ranked on all criteria except equity and costs to business. More than with any other option, this alternative illustrates the trade-off between effectiveness and equity that is central to many problems in public policy. One way to make programs more effective is to target benefits to those who most need assistance, but this requires eligibility rules that discriminate against some people (Haffner and Boelhouwer 2006). Thus, it is no surprise that my top-ranked option in terms of effectiveness is also my lowest-

ranked option on equity. The existence of a trade-off between two significant criteria does not imply that a choice cannot be made though. The fact that the status quo RAP targets benefits by excluding households without children indicates that British Columbians are willing to accept a certain amount of inequality in exchange for programs that achieve policy goals.

8.2 Limitations

My study is not without limitations, and I acknowledge these before proceeding to a recommendation. Importantly, by focussing on policy tools available to the provincial government, I exclude certain options from consideration. These include changes to federal programs such as the WITB and possible municipal initiatives such as a living wage that have been recommended by other researchers (Klein, et al. 2008). I have also excluded certain provincial policy initiatives, such as improved training and education, that could also augment earnings of lower-skilled workers but would take much longer to yield results and for which the results would be uneven.

My methodology oversimplifies the analysis of the policy impacts of alternatives on British Columbia's workers, as most of the population would not fall neatly into one of the four household types that I examine. Other assumptions that I make are likely to affect my overall results. For example, I assume that there will be no unemployment effects resulting from raising the minimum wage to \$10 per hour. This assumption is supported by the literature, but much of that research investigated minimum wage increases on the order of 10 per cent. It is likely that impacts would be greater in the case of a 25 per cent increase such as the one I propose in Policy Alternatives 2 and 4. I also assume that all children in my hypothetical households are school-age and require no paid child care. This makes my results inapplicable to the many B.C. families who have younger children and significant child care expenses. Finally, I use the after-tax LICO as a proxy for basic household expenses. This is not the intended use of the figure, and my results are less robust than if I had estimated each household's expenses for food, shelter and

clothing more precisely (for example, through a survey of household expenses). Looking at the various measures of low income in Table 2.1, it is evident that the after-tax LICO is often one of the lower estimates, and measures derived from real-world expenses such as the CNIT and the living wage are much higher. My estimate of the income a household needs to afford their basic needs is therefore conservative.

While these limitations should be kept in mind when interpreting my results, I believe that my analysis and findings are instructive. By limiting the variables in my analysis, I have been able to make key trade-offs more explicit, which is one of the most valuable aspects of the analysis. In particular, my finding that an increase in the minimum wage would be largely dissipated through reduced benefits for families with children is a new one. (However, earlier studies have discussed the high METRs confronting families with children under the National Child Benefit System and various provincial supplements. Poschmann and Richards (2000, p. 6) refer to METRs as the “Achilles’ Heel” of Canada’s system of benefits and tax credits.)

8.3 Recommendation

I believe that a political discussion should take place to determine the appropriate goal of provincial policies aimed at assisting low-income households to afford the basic necessities. One option is to attempt to ensure that all households working full-time will have net incomes at or above the LICO, as I have done in this study. However, it may not be publicly or politically acceptable to do this in practice because the necessary policies must either feature complex targeting mechanisms or they will provide windfall benefits to less needy households, as evidenced by the impact of my policy alternatives on the married couple without children. This household’s net income is 22.96 per cent above the LICO under the status quo, and all of the alternatives increase this differential. A second approach is to follow the B.C. government practice of explicitly targeting benefits at families with children (B.C. Housing 2006). This is a perfectly valid approach, but it must be recognized that it amounts to a political decision to accept

a degree of horizontal inequity. Put simply, it is a decision that ensures that some unattached individuals who work full-time will live on incomes below the LICO.

Given the parameters of my study and the results of the net income model applied to the four hypothetical households, I recommend that the government of British Columbia pursue Policy Alternative 4. The case for increasing the minimum wage to \$10 per hour is getting stronger as inflation erodes the purchasing power of minimum wage earners. It is expected that the strongest opposition to this move would come from business, but 34 per cent of the CFIB's own member businesses are in favour of the policy (Canadian Federation of Independent Business 2008). As mentioned above, the case for raising the minimum wage is stronger if the change is accompanied by alterations to benefits and tax credits that allow working households to keep a greater share of their increased earnings. The more effective the proposal is at reducing the gap between household income and basic expenses, the greater the public support is likely to be. Comparing the outcomes of the fourth alternative to the second alternative demonstrates that raising the RAP income limits in combination with increasing the minimum wage is more effective at achieving this policy goal.

This recommended approach would benefit from increased coordination between the provincial and federal governments. Many of the benefit payments that are partially phased-out when the minimum wage is increased are federal programs. The two levels of government should cooperate to manage overall METRs so that they do not constitute a major barrier to work. In particular, the phase-out rate of the CCTB is quite steep for married couples with two children. and adjustment to this program would be helpful. I also recommend that federal non-refundable tax credits be increased for families with children. Comparing Table 7.1 to Table 7.4, it is seen that the provincial tax credits increase a fair amount between the status quo and the higher minimum wage scenario while federal tax credits change only minimally. The 2009 federal budget did take steps in this direction by increasing the basic personal amount exempted from

federal income tax, raising the income ceiling for the lowest two income tax brackets, increasing the WITB and raising the income before which the CCTB and NCB supplement are phased-out (Department of Finance Canada 2009).

9: Conclusion

In spite of British Columbia's relatively healthy economy, the rising cost of living has put increased pressure on the ability of low-income workers to afford their basic needs. Especially in the province's larger cities, individuals and families are experiencing difficulty securing adequate housing, food and clothing. Children in low-income families are faced with reduced opportunities to succeed in life resulting from poorer health and education outcomes. In the end, society bears the cost of the shortfall in workers' incomes in the form of increased demand for health care and social programs and reduced productivity.

This study examined the policy tools available to the province of British Columbia to reduce the gap between income and expenses for low-income working families. By applying a simple model of government benefits and deductions to estimate the net income of four hypothetical households, I established the potential impact of three policy alternatives to the status quo. The alternatives were further analyzed by a set of criteria and measures designed to enable comparison and highlight trade-offs between the various options. I found that the proposal to combine a minimum wage increase with an increase to the eligible income levels of the RAP housing subsidy was most effective in achieving the policy goal and is more likely to be supported by stakeholders than a minimum wage increase alone. The policy would benefit from similar adjustments to the phase-out rates and thresholds of other federal and provincial benefit programs. I recommend that British Columbia initiate discussions with the federal government aimed at finding ways to support a minimum wage increase and ultimately improve the situation for B.C.'s low-income working families.

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