

Affordable Housing Options: Rent and Income Supplements



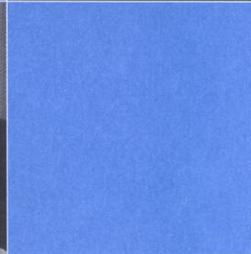
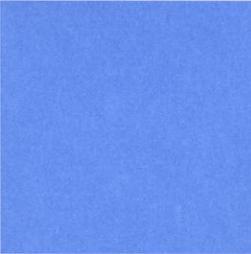
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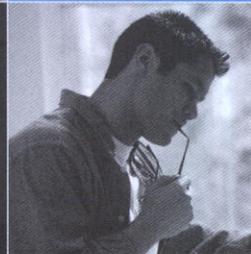


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Affordable Housing Options: Rent and Income Supplements

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Executive Summary

There is wide recognition in the literature on affordable housing that adequate, suitable and affordable housing is a prerequisite for a sustainable social fabric. Decent housing is important both to individual households and to economic growth. It also impacts on individuals' disposable income, their ability to access employment, their health, and their inclusion in society. The City of Calgary considers that safe and appropriate affordable housing benefits the whole community – socially, economically, and environmentally.

Although Canada Mortgage and Housing Corporation identifies suitability, adequacy and affordability as the main housing problems in Canada, *affordability* is the issue that affects the most Canadians. For Calgary City Council, affordable housing is defined as housing that “adequately suits the needs of low- and moderate-income households at costs below those generally found in the Calgary market.” In Calgary, almost 18 percent of all households (58,555 households) have a housing affordability problem.

This first part of this report is a literature review that provides a brief overview of housing policies in Canada during the last decade, a definition of affordable housing, and a description of the alternative policy options available to tackle this issue. It presents a brief discussion of supply measures and continues with the analysis of the advantages and disadvantages of demand-side measures. The debate regarding the efficacy and efficiency of existing public policy programs is discussed and recommendations based on the literature are summarized.

The second part of this report provides a financial analysis that examines how senior government funding could be used for different affordable housing options in Calgary and recommends how these options could be used to effectively address housing affordability problems. The analysis is purely *economic* and corresponds with the housing policy direction provided in the literature review. It does not discuss the need or costs for social supports, which are recognized as an integral part of many affordable housing programs.

Key Findings

This literature review identified a fundamental role for the federal government in defining a national housing policy. The Federation of Canadian Municipalities has made key recommendations regarding the need to expand the supply of affordable housing units for specific populations, preserve existing affordable housing stock, create a shelter allowance program, and reform the tax treatment of rental investments. The literature shows that the selection of an appropriate target audience for housing programs is critical for effectively resolving affordability issues.

Based on these findings, both demand and supply measures are appropriate in different circumstances, depending on the aim of the policy goal, as follows:

- **Targeting Specific Populations** – To target a specific population sector requiring immediate assistance, the literature recommends an *income supplement* program.
- **Promoting Choice** – To promote flexibility, choice, mobility, and economic integration, *income supplements* are recommended. This assumes that the stock of rental properties is fixed, at least in the short term, and that lower-rent-valued rental stock is available and distributed around the city (as opposed to concentrated in a specific area). It should be noted, however, that a large-scale implementation of this kind of program would put pressure on the lower level of the rental market and thus may raise rent levels in the short term.
- **Non-Profit Provision** – To make a long-term commitment to tackle affordability, suitability and adequacy issues through a comprehensive program, the literature recommends using implicit rental supplements via *non-profit housing provision*.
- **Increasing Housing Supply** – To increase the supply of affordable housing units, the literature recommends providing *capital grants* to non-profit organizations for the creation of new or refurbished stock.

The financial analysis conducted looked at four main affordable housing options, their costs, and their ability to provide housing units to low-income households requiring affordable housing because they spend more than 30 percent of their income on shelter. The analysis then looked at how each option would benefit from the use of Affordable Housing Partnerships Initiative (AHPI) funding dollars, whether given through straight use of the funds or through investment of the funds, which are currently granted only to new capital building projects relating to affordable housing.

The main results of this analysis show that the use of AHPI funding dollars would definitely benefit the other affordable housing options including capital ‘acquire and renovate’ projects, income supplement programs, and rent supplement programs. Therefore:

- ***It is recommended that any affordable housing program in a municipality or province use a combination of providing straight funds, as well as investing funds and using the interest income.***

It is unrealistic to assume that investing the entire annual AHPI funding amount for Alberta of \$33,560,000 and using the annual interest income of \$1,678,000 to fund affordable housing initiatives is appropriate since the need for capital affordable housing projects in the short term is so great. However:

- ***Investing a portion of the annual AHPI funding amount, whether at the provincial or municipal level, is a prudent strategy to build up a pool of funds for use over the long-term for a variety of affordable housing options.***

With the risk of overall funding dollars being decreased, along with the growing number of households requiring affordable housing, long-term solutions such as this must be considered to provide a more sustainable affordable housing program. For example, if one-quarter of the annual AHPI budget (\$8.39 million) were invested at five percent per annum, the annual interest income would be \$419,500. This amount would provide 27 full 25-year rent supplements, 524 annual rent supplements, 33 full 25-year income supplements, or 637 annual income supplements. The remaining 75 percent of the total annual AHPI budget (\$25,170,000) would still be available to fund capital build or capital acquire and renovate projects.

In addition:

- ***Bylaw changes to promote the use of secondary suites are another potential solution that could add to the effectiveness of an affordable housing program in any municipality.***

There are many factors and stakeholders involved in changes such as this one, but the results could be very beneficial to help meet affordable housing needs.

One of the key statements made in the introduction to the financial analysis was that the objectives of any affordable housing plan for a province or municipality must be considered in the overall design of the program. Thus:

- ***Any affordable housing strategy developed for Calgary should consider using a combination of the four main options discussed – capital build projects, capital ‘acquire and renovate’ projects, rent supplement programs, and income supplement programs.***

Applying available AHPI funding to a combination of these four program options in a fashion that complements the objectives of the overall strategy would create a dynamic program that can change as the city’s needs for affordable housing change. This would allow the overall program to take into account factors that influence affordable housing including rental vacancies, interest rates, number of households requiring affordable housing, and a host of other factors. The more the overall program can respond to and work with the changing environment of the city and province, the more beneficial the program would be.

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Affordable Housing Options: Rent and Income Supplements

There is wide recognition in the literature on affordable housing that adequate, suitable and affordable housing is a prerequisite for a sustainable social fabric (Hulchanski, 2002). For instance, the spending review presented by United Kingdom's government on July 15, 2002 stressed that "decent housing is important both to individual households and to economic growth." It also "impacts on individuals' disposable income, their ability to access employment, their health, and their inclusion in society" (Hulchanski, 2002: 1). In the same line of thought, The City of Calgary (2005a) considers that safe and appropriate affordable housing benefits the whole community – socially, economically, and environmentally.

As a key pillar of the economic and social sustainability of cities, affordable housing is considered a significant topic and is carefully studied by local, provincial and federal governments in Canada and other developed countries (Hulchanski, 2002). The availability of affordable housing is a major constraint to equalizing the life opportunities of individuals in Canada (Chisholm, 2003). One in six Canadians (1.7 million households), were experiencing at least one of several identified housing problems in the year 2001. Although Canada Mortgage and Housing Corporation identifies suitability, adequacy and affordability as the main housing problems in Canada, *affordability* is the issue that affects the most Canadians (Pomeroy, 2004).

For Calgary City Council, affordable housing is defined as housing that "adequately suits the needs of low- and moderate-income households at costs below those generally found in the Calgary market" (City of Calgary. 2002: 18). In Calgary, almost 18 percent of all households (58,555 households) have a housing affordability problem (City of Calgary. 2005c: 2).

A sizable amount of literature has been developed on affordable housing, in which several policy options are discussed and analyzed. The two main categories of policy options are the *production of affordable housing* (supply measures) and *measures to increase a household's ability to pay for housing* (demand measures). This literature review is intended to identify issues with respect to urban affordable housing and will present the most current discussion on public policy options, their advantages and disadvantages, their suitability for meeting a government's goals, and their efficiency and effectiveness.

This report will first provide a brief overview of housing policies in Canada during the last decade. It will be followed by a definition of affordable housing and a description of the alternative policy options available to tackle this issue. It will present a brief discussion of supply measures and continue with the analysis of the advantages and disadvantages of demand-side measures. The first part of the paper will then discuss the debate regarding the efficacy and efficiency of existing public policy programs, and conclude with recommendations based on the literature.

The second part of this report provides a financial analysis that examines how senior government funding could be used for different affordable housing options in Calgary and recommends how these options could be used to effectively address housing affordability problems. The analysis is purely *economic* and corresponds with the housing policy direction provided in the literature review. It does not discuss the need or costs for social supports, which are recognized as an integral part of many affordable housing programs.

1.0 The Quest for a Coordinated National Housing Effort

Over the last 10 years, Canadian housing policy has changed. In fact, some observers would even go so far as to say that today there is no national housing policy (Wolfe, 1998). Some others affirm that Canada is currently experiencing an acute affordable-housing crisis, partly due to the void left by both federal and provincial governments (Hargrove, 2004). The reality is that there has been a shift in Canadian housing policy towards market approaches to housing problems. This fact has redefined and almost dismantled a system that had taken Canada 50 years to build. The federal government has retreated from the provision of social housing and has transferred these responsibilities to provincial and local levels of government. For instance, Wolfe (1998) describes current social housing policy in Canada as consisting of a checkerboard of provincial and territorial policies and innumerable local policies.

From 1945 until early 1990s, the federal government had a strong role in defining a national housing policy, with Canada Mortgage and Housing Corporation (CMHC) as the prime advisor to the government on housing policy. CMHC was created in 1945 under the *National Housing Act*. Originally, CMHC had wide powers in areas such as housing finance, social housing, and housing research and development (Girard, 1996, as cited in Wolfe, 1998: 122¹). Later, constitutional difficulties led to the formation of Provincial Housing Corporations, which at first functioned as conduits of federal money to municipal projects. "Today the responsibilities and activities of each of the Provincial Housing Corporations differ according to provincial housing policy and resources. They operate through the signing of negotiated agreements with CMHC concerning cost shared and federally funded programs along with implementing provincially financed initiatives. In turn, they make agreements with municipal governments for program delivery and management" (Wolfe, 1998: 2).

¹ Wolfe is citing Girard, G. (1996), *Housing Finance and Development in Canada: Globalization and the Housing Industry* (Seoul, Korea: Housing Institute).

In an article published in the *National Post* on 22 November 2004, Basil Hargrove, president of the Canadian Auto Workers, stresses the importance of public investment in affordable housing and reinforces the role of private sector and unions in a national housing strategy. Hargrove suggests that the federal government could partner with cities on building low-cost housing and emphasizes that a plan will not reach those in greatest need unless it contains significant funds for geared-to-income rent programs. Hargrove points out that rent supplements enjoy support across the political spectrum in municipal councils because they have proven to be the most cost effective way to help marginalized and homeless people make the transition to stable housing.

In *The National Housing Policy Options Paper – A Call for Action*, a 1998 report by the Federation of Canadian Municipalities (FCM), it is stated that municipal governments are assuming greater responsibilities in the face of federal devolution, limited provincial activity, and pressing community need. The FCM (2000b) later conceded that local efforts have had a limited impact on the mounting national affordable housing crisis. In response to this reality, the FCM promoted a cooperative action plan and drafted a National Housing Strategy (FCM, 2000a), which had three components: (1) a 10-year flexible federal capital grant program, (2) measures to attract investment (e.g., tax measures, strengthening the role of CMHC), and (3) provincial/territorial shelter and rental assistance programs.

In November 2004, the FCM issued a document that refines its recommendations for a National Housing Strategy with a four-point strategy (Pomeroy, 2004):

1. ***Expand the supply of affordable housing targeted to the income levels of the working poor and to off-reserve Aboriginal peoples.***

The current FCM program is believed to be focused on supply rather than affordability. The 2004 FCM document states that this program tends to create units in a price range that competes with existing privately operated rental units. The document highlights that grant parameters should be revised to facilitate affordability to households most in need of assistance, targets should be focused on very low income households via rent supplements, and small suites for low wage singles should be promoted.

2. ***Preserve the existing affordable housing stock.***

From 1996 until 2001, over 300,000 units renting below \$500 per month were lost. The FCM target of 20,000 new affordable units annually is said to leave a net loss of 40,000 units each year. A suggested option is to enable the transfer of ownership from private entrepreneurs to non-profit organizations as the latter can better protect long-term affordability.

3. ***Create a new shelter allowance program for working poor renters and address deficiencies in the shelter component of provincial income assistance programs.***

The FCM document stresses that the vast majority of housing problems are related to affordability. It is important to raise the transfer amounts for those on long-term income assistance such as persons with a long-term disability and seniors. Updating the shelter component of income assistance programs is recommended to reflect the reality of the prevailing market rents. Providing shelter costs as part of programs that enable welfare recipients to transition into work (i.e., through 'welfare-to-work' programs) is also suggested.

4. ***Encourage the expansion of market rental housing through reform of tax treatment of rental investments.***

In addition to the current FCM program, the document suggests an amendment to Section 38 of the *Income Tax Act* to provide equal treatment for donations of land for the purpose of building affordable housing and homeless shelters as is provided in the case where land is donated for an environmental trust.

2.0 Addressing Varying Housing Circumstances across Canada

The housing situation varies across Canada. For instance, the FCM (2000*b*) highlights that affordability and homelessness are prominent in Toronto; Calgary has little housing for low-wage workers, while Montreal neighbourhoods struggle with concentrated poverty and deteriorating housing; on the Prairies the needs of Aboriginal peoples are pressing. Therefore, rental assistance programs would have different targets and would work under different conditions in each province or city.

Ontario rents for the existing stock are quite reasonable but there is not enough stock for the large component of renter households who only have an affordability problem (Clayton Research, 2000). Over 196,000 households (4.2 percent of all households) are experiencing affordability, suitability and/or adequacy problems in the Greater Toronto Area (GTA) alone. The Ontario Government announced a Rent Supplement Program in 2000, which was similar to a program that operated in Ontario between 1971 and 1985. The \$50 million dollar initiative provided over 5,000 households with rent supplements, with about 2,700 household supplements allocated in the GTA.

Clayton Research raises two concerns. First, the program is not substantial enough to help out a significant number of renter households with affordability problems. Second, rent supplement programs can only be effective in an environment where there is sufficient housing supply, which is not the current environment in Ontario.

In 1998 in the city of Toronto, 230,000 renter households (24 percent of all households) spent more than 30 percent of their income on shelter – 106,000 of these households (11 percent of all households) spent more than 50 percent of their income on shelter (Pomeroy, 1998).² Pomeroy affirms that the distribution of affordability problems in Toronto identifies specific sub-populations for targeting assistance. *The characteristics of the population will influence the type of intervention that might be effective.* For instance, youth in poverty may experience the greatest shelter burden, but providing shelter assistance alone may not alleviate their difficulties. Pomeroy points out that in addition to affordability, many of Toronto's households confront difficulty *accessing* affordable housing as landlords are not always willing to rent to youth or to lone-parent families.

Pomeroy concludes that rent supplement options remain relevant as a supportive mechanism for supply options, in particular to address the affordability objective. He suggests two forms of shelter allowance. First, he recommends reform of the shelter allowance that already exists within the social assistance system by increasing its shelter component. Second, he advocates for a new program directed to the working poor outside of the welfare program.

In Calgary, rents are not affordable for many low-income Calgarians. An individual working 40 hours per week at minimum wage (which, at \$5.90 per hour in Alberta, is currently the lowest in Canada) can afford a monthly rent of \$307 (based on 30 percent of gross monthly income). When comparing this to the average rent of \$515 per month for a bachelor apartment in Calgary, the wage earner would fall significantly short of the rent required or spend much more than they can afford on housing, leaving very little disposable income for food and other necessities (City of Calgary, 2005b: 2).

Moreover, Calgary Housing Company, the largest provider of non-market housing in Calgary, accommodates 7,111 households (in 6,182 non-market units and 929 Private Landlord Rent Supplement units) and maintains a waiting list of as many as 1,800 households, many of whom have to wait up to two years for a unit (Stamm, 2005a). The City of Calgary has built 202 additional affordable housing units in the community of Manchester, which opened in the spring of 2005.

Other organizations are adding incrementally to the supply in Calgary. However, “a lack of community capacity for the development and management of non-profit housing has limited Calgary's ability to obtain the maximum amount of federal-provincial funding available for the construction of affordable units” (City of Calgary, 2005b: 3). Since the completion of the Mayor's Round Tables on Affordable Housing, however, there has been a modest increase in uptake of AHPI funds by the non-profit and private sectors, who are developing an increased interest in and understanding of how to develop and operate non-profit housing (City of Calgary, forthcoming).

² The percentages provided here are approximations only since the total number of households for the city of Toronto (943,000) are reported for the year 2001.

3.0 Low Income is the Main Affordability Issue in Canada

In Canada, the vast majority of households in serious housing need experience housing affordability problems, either exclusively or in combination with other housing problems (Pomeroy, 2004). Housing affordability is commonly defined for public policy purposes as a relationship between housing costs and income (Chisholm, 2003). Chisholm states that a housing affordability problem is perceived to exist if housing costs are too high relative to household income.

There are two dimensions to the affordability issue. The *income dimension* means that housing may be relatively inexpensive but people may not have the income to afford it. The *rent dimension* means that there is a decline in the supply of available rental units, either because the stock fails to keep pace with population growth or household growth would put an upward pressure on rents. This problem is especially apparent in lower-rent rental properties, where low-income households seek accommodation (Pomeroy, 2001).

A report released in June 2003 affirms that low income is the main driver of the demand for affordable housing. For the TD Bank Financial Group (2003: 5), market-generated incomes at the low end are not rising quickly enough to keep up with rising housing costs. "Most low-income families continued to fall further behind during the second half of the 1990s. And although total family income in real terms for the lowest 20 percent of income earners began to grow again in the 1996-2000 period (by 0.5 percent per year) after falling by an annual average rate of 0.8 percent in the 1991-95 period, these gains were one-quarter of that chalked up by the average Canadian family. And, for those who did fare better, rising incomes were often outstripped by rent-cost increases."

The stock of rental housing has stagnated in recent years, and has actually been receding at the lower end of the rental value range (TD Bank Financial Group, 2003). One reason for the decline in rental housing stock is the loss of units due to "conversion of suites" from rental units to owned condominium units (CMHC, 2004b: 2). This is a segment of the market where lower-income households with affordability problems are concentrated, which cause the rents in this spectrum to jump accordingly (TD Bank Financial Group, 2003; Pomeroy, 2001).

Housing is the most expensive item in the household budget (Hulchanski, 2002). Housing expenditures in Canada represented 19 percent of household expenditures in 2001. However, for low-income households the percentage spent on housing was much higher, at 31 percent for 2001 (Chisholm, 2003). A CMHC document released in 2001 shows that 1.7 million households, representing 15.8 percent or almost one in six Canadian residents, were in housing need. This illustrates that affordable housing is a serious issue in Canada and that Canadian housing needs are not being met under current policy and government programs (Pomeroy, 2004).

Pomeroy (2001) states that more than two-thirds of households in need of affordable housing are renters (68 percent), even though renters comprise only 35 percent of all households. He points out that renters more often experience an *affordability* problem, while owners in need tend more often to experience *adequacy* problems. In the same line, Chisholm (2003) highlights that, in 1996, an estimated 656,000 households spent 50 percent or more of their income on shelter. Approximately 60 percent of such households rely on government as a main source of income. Thus, inadequate social assistance levels have been identified as a major contributor to housing affordability problems (Pomeroy, 2001). The remainder of those households could be classified as the 'working poor.'

A research summary released by the City of Calgary (2005b: 1) shows that 34 percent of all *renter* households in Calgary (34,650 households) have income of less than \$38,000 per year and are spending more than 30 percent of their income on shelter costs, leaving them at high risk of becoming homeless. A related issue is that the overall apartment vacancy rate in Calgary reached a nine-year high of 4.4 percent in 2003 and declined only marginally to 4.3 percent in 2004. The high vacancy rate might suggest that many housing options are available to low-income households. However, as CMHC (2004b: 5) reports, "units with the highest average rents also had the highest rate of vacancy. For units commanding \$1,200 or more per month, vacancies reached 8.1 percent in 2004, almost double the rate experienced for all units."

A vacancy rate above 5 percent is assumed to be an indicator of 'oversupply' in the housing market. In both 2003 and 2004, CMHC (2004b:9) data show that bachelor apartments had the highest vacancy rates of all unit types in Calgary. In 2004, bachelor apartments had a significantly higher vacancy rate than one-bedroom apartments, for example, at 5.8 versus 3.4 percent respectively (CMHC, 2004b:9). One reason for this may relate to personal preference. According to Calgary Housing Company (Stamm, 2005b), single applicants invariably prefer one-bedroom accommodation over studio (i.e., bachelor) accommodation, assuming there is no significant difference in price. In addition, most longer-tenure residents of Calgary Housing Company units who have been housed in a studio apartment request a transfer to a one-bedroom unit.

Also of note is that, in 2004, the overall supply of bachelor apartments in Calgary was only 1,750 units, which represents only 4 percent of the total apartment universe. Given the combination of a high vacancy rate and low supply among bachelor apartments in Calgary during a time of relatively high overall rental vacancies, the recommendations made by the FCM to build bachelor and single room occupancy (SRO) units (Pomeroy, 2004) may not be applicable to the Calgary market, despite a high demand for housing for single individuals.

4.0 Possible Public Policy Options

The goal of any social housing policy is to provide assistance to low and moderate income households to enable them to obtain adequate and suitable housing at a price they can reasonably afford (Pomeroy, 1998). According to the TD Bank Financial Group (2003), affordable housing in Canada represents a two-sided challenge. Although low income is the main driver of demand for affordable housing in Canada, the problem is also one of supply. There are not enough dwellings available for Canadian households at the price they can afford on their current income. This is at least partly because the amount of rent that lower-income households can afford to pay is not high enough to elicit new private sector supply or to refurbish existing stock.

There are two main policy options that are widely discussed in the literature. The first option focuses on the *rent dimension* of the housing affordability issue. This approach involves actions related to the *production of affordable housing*, which are known as 'supply-side measures.' The aim of these measures is to increase the stock of affordable housing and diminish pressure to increase rent. Supply measures include direct support for the public or non-profit production of housing, incentives for private rental unit development, reducing development costs, and encouraging lower cost forms of development, among others.

The second option focuses on the *income dimension* of the housing affordability issue. This option seeks to solve the *affordability issue* by increasing a household's ability to pay for shelter. Such measures include rent supplements or allowances and income assistance. This option is also known as 'demand-side measures.' While the focus of this report is on housing programs that are directed to the *income dimension* of the housing affordability issue, we will first give a brief overview of measures leading to increasing the *supply* of affordable housing.

4.1 Building More Housing Stock

The direct supply of housing was the predominant program response to the affordable housing issue in Canada through the post-war period (Pomeroy, 2001), until 1993. The subsidization of construction costs for new or renewed housing has been the primary focus of national housing policy since 2001 (Hulchanski, 2002). This approach is an attempt by government to increase access to and availability of affordable housing for low-income households, while supporting the creation of new affordable units. Projects under this program are governed by an agreement between the public funding agency and landlord as to the terms of the funding being provided (Hulchanski, 2002). Housing units must remain dedicated to the affordable housing program for a minimum period of 10 years (TD Bank Financial Group, 2003) in order to serve low- to moderate-income households over a fixed term (Alberta Community Development, 2000).

Provinces are able to increase the minimum requirements set for affordable housing programs (Pomeroy, 2004). Alberta Seniors and Community Supports has done just that and requires that affordable housing provided under the federal-provincial Affordable Housing Partnerships Initiative remains affordable for a minimum of 20 years, versus the federally mandated 10 years (Government of Alberta, 2005). The Affordable Housing Framework is supported by a five-year federal government commitment of \$1 billion. For Alberta, the combined federal-provincial amount is \$134 million committed for the fiscal years 2002 through 2006. Of course, the major support for capital programs surrounds the creation of new affordable housing supply in a market that is already identified as being greatly lacking (Pomeroy, 2001).

Public funds allocated to the production of new affordable housing could be directed either through non-profit organizations or private builders. However public funds directed to non-profit housing organizations are believed to be more efficient in the long run (Ekos Research Associates, 1997). Housing created through capital grants provided to non-profit organizations can continue to serve low-income households over the long term, a benefit not recognized when private landlords engage the program (Pomeroy, 2004). This relates to the previously stated notion that private sector landlords are reluctant to renew or continue with rent supplement contracts when low market vacancy rates allow for increased demand by higher income renters who are willing to pay more in the market for moderate housing. Further, the administrative costs affiliated with adherence to the supplement program acts as a deterrent for landlords who are reluctant to adhere to and be bound by rules when it is unnecessary and less profitable given market demand (Pomeroy, 2001).

A major criticism of subsidized capital build programs is that they only cover an amount equivalent to bringing new housing down to the market rent level. Lower-income households cannot afford the average market rent levels created by capital grants and, subsequently, they must remain on waiting lists for accommodation that is offered *below* market rent (Chisholm, 2003). Different concerns are expressed by Pomeroy (2004), who notes that private landlords may choose to finance smaller dwellings to derive the greatest benefit from the capital subsidy program, leaving families of larger size with little added supply. That said, the majority of households in need of affordable housing consist of low-income singles. In his analysis of 2001 census data, Pomeroy (2004) reports that 60 percent of households that spend more than 50 percent of their income on housing are singles.

It is also thought that the creation of affordable housing through supply measures is not sustainable, given that units designated under the program will likely return to the private market once the term of the program contract has expired [although this may not be the case for housing provided by non-profit organizations]. Thus, no long-term affordable housing supply has been established in return for the initial government investment of capital grants. Moreover, while housing created with capital subsidies are fully identified as being affordable housing, increasing the concentration of low-income households in particular areas may stereotype neighborhoods and limit the benefits that can be achieved from social inclusion (Pomeroy, 2001).

4.2 Income Transfer Regimes

As previously noted, the affordability problem in Canada is essentially a problem of low income. In this environment, some form of *rental assistance* is necessary to address the existing affordability gap. Income transfer measures can play an important role in moderating the market pressures that exacerbate affordability problems, as supply initiatives cannot be implemented on a sufficient scale to tackle the large backlog of these problems (Pomeroy, 2004).

Rental assistance is an income transfer intervention that provides a conditionally linked monetary transfer, specifically intended to lower the proportion of a household's income expended on housing (Pomeroy, 2004). Rental assistance programs can be used to address the affordability problem that supply programs are often unable to meet, and can be tailored to address specific policy objectives and the particular circumstances of the target group for which it is intended (Pomeroy, 1998).

Pomeroy (1998) identifies two types of opportunities that rental assistance could offer. First, rental assistance approaches can address the risk of homelessness by alleviating the high shelter burdens that make households vulnerable to homelessness. Pomeroy identifies that there are numerous factors that could cause the homelessness problem including mental or physical abuse, disabilities, and family violence. However, 'rental assistance' is identified primarily as a strategy for those experiencing only poverty. Second, rental assistance approaches could be complementary to supply programs. A rental assistance program can provide a guaranteed source of revenue to bridge the gap between mid-market break-even levels and affordable levels based on rent geared-to-income.

Pomeroy (1998) also distinguishes four different approaches to rental assistance:

1. *Non-Profit Provision of Housing*

The non-profit provision of housing occurs when community-based organizations supply, renovate or manage housing under one of various programs induced by the senior levels of government (Wolfe, 1998).

2. *Rent Supplements*

Rent supplements involve a lease or contract with a landlord for access to specific units in a property. Rental assistance is typically paid directly to the landlord based on a predetermined rent geared-to-income (RGI) rent contribution paid by the tenant. The program pays the difference to the landlord (Pomeroy, 1998). Pomeroy (1998) notes that non-profit provision represents the direct supply of a housing unit, whereas rental assistance provides the difference between the actual break-even cost of providing the unit and the rent paid by the tenant. In Calgary, there are 929 Private Landlord Rent Supplement units funded by the Alberta government and managed by Calgary Housing Company (Stamm, 2005a).

3. ***Income or Housing Conditioned Shelter Allowances***

Income or housing conditioned shelter allowances are typically cash payments paid directly to a tenant, but where the amount of the allowance and eligibility to apply are specifically premised on certain income or housing criteria.

4. ***Income Assistance***

Income assistance is a lump sum benefit paid to the renter based on the actual amount of rent paid, up to a maximum that reflects household size (Pomeroy, 1998).

The Alberta government has two income support programs – Income Supports (IS) and Assured Income for the Severely Handicapped (AISH). The IS program has an independent shelter allowance, which is discussed below, whereas the AISH program does not. AISH provides a maximum lump sum benefit of \$855 per month (Government of Alberta, 2004a).

The IS program's shelter allowance or "core shelter" benefits are for rent, mortgage, utilities, heating fuel, municipal taxes, insurance, condominium fees, lot rental, homeowner's maintenance, and damage deposits. The program does not pay 100 percent of average market rents. Rather, core shelter benefits are indexed by household size, benefit level, and housing type. Benefit levels are defined for persons who are not expected to work, persons who are expected to work, and persons identified as learners. Housing types are defined by place of residence – living with relatives, living in social housing, or living in private housing (Government of Alberta, 2004b).³ According to the Government of Alberta (2004b), the IS program has a monthly shelter portion that can be averaged based on household size:

- For a one-person household (single adult), the average shelter portion is \$266
- For a two-person household (a single adult with one child or a couple with no children), the average shelter portion is \$433, and
- For a three-person household (a single adult with two children or a couple with one child), the average shelter portion is \$543.

In summary, rental assistance programs can be tailored to address specific policy objectives and the particular circumstances of the target group for which the programs are intended to assist. The next section of this research paper will summarize the discussion in the literature on the goals of each of the rental assistance programs as well as their suitability, strengths and weaknesses.

³ Since this study is concerned with the gap between average market rent and the income supplement, only the core shelter benefit for those living in *private housing* is assessed in part two of this report.

4.3 Income Assistance and Shelter Allowances

Both *income assistance* and *shelter allowance* programs aim to increase the beneficiary's income available for shelter. Income assistance programs achieve this with unrestricted cash transfers, whereas shelter allowances uses conditional transfers. For example, the Manitoba Shelter Allowance for Families excludes households receiving welfare and is specifically directed to low-wage working families. The existing program in Ontario falls somewhere in the middle of the continuum between pure income assistance and pure housing assistance. It is not an unconditional transfer because the total benefit is in part derived from actual housing costs (Pomeroy, 1998). Neither program requires a formal agreement with landlords since benefits are paid to the renter not the landlord (Pomeroy, 2001).

The amount of financial subsidy is based on consideration of the income level of the household and market rent for the desired unit. Maximum assistance levels are assigned based on household size to prevent over consumption by participants (Pomeroy, 2001). Where *rent supplements* typically will cover the full portion of the gap between the household contribution and fair market rental value, *shelter allowance* and *income assistance* programs generally cover between 75 and 90 percent of the difference (Pomeroy, 1998: A-8).

Both income assistance and shelter allowance programs can reach those in need of affordable housing immediately. The flexibility of income supplements allows the government to vary the financial amount of subsidies with ease, avails the opportunity to cut the program at any time, and allows the program to respond to actual housing costs (Hulchanski, 2002). This flexibility also allows for the targeting of specific groups facing greater affordability problems than other groups, and allows for rationed or broad based distribution of assistance at the government's discretion. Rationing can be achieved by establishing waiting lists for shelter allowances, with periodic reviews of household circumstances and eligibility (Pomeroy, 2001). As well, the subsidization of private sector housing would eliminate the potential for criticism of subsidized market rental units by private sector representatives who view social housing policy as unfair competition in the housing market (Hulchanski, 2002).

Income supplements allow for greater mobility by tenants. Tenants would be able to have greater choice as to where they want to live, and could move when they desired. Subsequent benefits of economic integration that perhaps was unattainable in social housing or rental supplement housing may provide opportunity for some to "escape areas of concentrated poverty and low economic opportunity" (Barton, 1996: 5). This flexibility extends to the use of funds by program recipients for other essentials, should the need arise (TD Bank Financial Group, 2003).

Hidden and recognized administration costs associated with rent supplements can be diminished through the use of income subsidies (Hoek-Smit and Diamond, 2003). Further, there is less market disruption and greater opportunity to accommodate needed mobility for employment opportunities in different locations (TD Bank Financial Group, 2003).

Countering the concerns of split markets associated with recognized designated rent supplement housing, income subsidies provide for a seamless integration of low-income and moderate-income households in complexes and neighborhoods. This encourages social inclusion amongst diverse income communities (Chisholm, 2003). This may eliminate concerns of perceived low quality housing associated with recognized rent supplement units and promote greater acceptance by landlords of prospective low-income tenants while eliminating pricing fluctuations of rental property.

Income supplements, as with rent supplements, do not effectively address issues of low affordable housing production, and income subsidies have the potential to be perceived as benefiting landlords through the subsidization of rent (Pomeroy, 2001). This is not an unjustified belief. “Providing cash transfers to some low-income households, without increasing the supply in that segment of the rental market, has the inevitable result of raising rents overall” (Hulchanski, 2002: 24). In a study of 90 metropolitan areas, the average increase in rent was 16 percent attributed to income supplements (Susin, 2002, as cited in Hulchanski, 2002). Hulchanski’s conclusion is that rent supplements (versus income supplements) are more beneficial to low-income renters, based on the ability of government to force landlords to adequately maintain the property (Hulchanski, 2002).

Subsidies are criticized for lacking sustainability. Fixed annual support cannot be maintained given the increasing rate of market rents. Therefore, if considered as a sole mechanism for addressing affordable housing issues, long-term anticipated funding costs must be taken into account (Hall and Berry, 2002).

Concerns are also expressed that the provision of income supplements does not guarantee use of the supplement for housing purposes. Identified segments of the population (such as people with mental illness, drug or alcohol addicted people, and adolescents) may be unable to make responsible choices about how to use the supplement. A proposed solution to this dilemma is public trusteeship or supplement payments that are made directly to the landlord through the monitoring agency (TD Bank Financial Group, 2003). Finally, political instability is a concern with supplements. The potential for quick termination of the income supplement program would present difficulties and hardship for those whose sole ability to reside in affordable housing is reliant on the support obtained through the program itself (Barton, 1996).

4.4 Rent Supplements

Rent supplements “are payments made directly to a specific landlord in exchange for housing specific low-income households (usually drawn from social housing waiting lists) in specific rental units that have been inspected by the funding agency.” The government and landlord enter into a legal contract, which involves agreement by the landlord to legally provide a specified amount of units to those households identified by a government agency, while the government supervises the arrangement and ensures that property standards are maintained (Hulchanski, 2002: 23). The government (or public agency) agrees to fund the unpaid portion of the actual market rent value for the rental unit on a “rent-geared-to-income” basis (Pomeroy, 2001: 18).

Pomeroy (2001) identifies that rent supplements have historically received poor reception by private landlords. Few landlords renew their rent subsidy agreements that previously were for 15-year terms (during the 1970's), which now exist on three- to five-year terms. He attributes this to the recent low vacancy rates in municipalities, which provide greater demand by private market tenants; increased landlord administrative duties to uphold the legal contracts, and tenant selection occurring by parties other than the landlord themselves.

However, several benefits can be seen in public policy that promotes rent supplements. Besides the obvious fact that low-income families would be able to obtain housing that would otherwise be unattainable, quality housing is promoted through the government's role in monitoring standards and quality of residences while eliminating housing that is deemed unacceptable. Further, landlords would be unable to engage in predatory rent practices through the government's role in monitoring the rental market (TD Bank Financial Group, 2003).

As a result of rental supplements being location specific, benefits can be seen if the intent is to improve public health, address inequities in housing conditions, and improve neighborhood "slums." The result is neighborhood improvement in poorer civic areas through government monitoring and the involvement of public agencies in rental supplement contracts (Hoek-Smit and Diamond, 2003). The improvement and increased quality of substandard housing areas through rent supplements could result in neighborhood stabilization in the areas of crime prevention, social service provision, and improvement of public assets.

Rent supplements alone do not address the lack of affordable housing supply. The ability of rent supplement programs to increase the availability of affordable housing becomes dependent upon landlords who may express little interest in the program due to administrative costs and restrictive contracts (Pomeroy, 1998). Countering this is the belief that with increasing vacancy rates, now may be the time to promote long-term rent supplement contracts with landlords to increase affordable housing availability (TD Bank Financial Group, 2003). Pomeroy (2004) indicates that rental vacancies have increased to 2.2 percent in Canada in 2003, the result of low mortgage rates allowing moderate income earners to move out of rental property to owned homes.

Government's use of rent supplements diminishes the freedom of choice that households have in regards to location, choice, and ability to spend the subsidy on other goods or services (Priemus, 2000). Labour mobility may be diminished when households cannot transfer residency to a location that accommodates prospective or transferred labour (Hoek-Smit and Diamond, 2003). Priemus (2000) affirms that this is justified by the government's desire to increase housing supply through subsequent increased housing demand and by the preferences of government and taxpayers to monitor public spending and ensure that it is going towards addressing housing problems, rather than being spent on other goods or services.

The tie that low-income residents have to locations where rent supplements are accepted also may result in stress and difficulty should landlords choose not to renew their participation in the program once the contract expires (Pomeroy, 2001). There is political and public resistance to low-income housing in moderate to high-income municipal areas, the exception to which is housing for the elderly (Barton, 1996). At the 2003 Mayor's Round Table on Affordable Housing hosted by the Mayor of Calgary, a noted barrier to affordable housing initiatives was the issue of "not-in-my-back-yard" (NIMBY) with respect to community support and awareness (City of Calgary, 2003b).

4.5 Non-Profit Provision of Housing

As defined earlier in this document, the non-profit provision of housing is achieved when community-based organizations supply, renovate or manage affordable housing under a government program. This is normally a hybrid program, meaning that it is a supply program with an *implicit* rent supplement. Non-profit provision thus shares most of the characteristics of rent supplement programs although they have several particularities.

Typically the benefit under non-profit programs in Canada involves covering the full difference between rent geared to income and the full break even cost associated with the operation of a non-profit. The program subsidizes 100 percent of this difference, which is usually larger than the amount of the affordability gap as the non-profit break even costs are generally above market levels, at least until the property is older (Pomeroy, 1998). Under supply programs, such as non-profit housing, the objective is to reduce cost with no change in income. Pomeroy (1998) declares that housing provided by non-profits organizations represents a higher level of amenity than the household could afford without assistance. Therefore, they consume far more housing than they might otherwise choose to, given an income constraint.

Clayton Research (1994) believes that non-profit provision is inefficient, as the cost to the government is higher than the benefit perceived by the client (break even costs are usually higher than the average rent). Economic theory argues that when the identified problem is one related to affordability, it is more efficient to identify program designs that do not increase housing consumption (Pomeroy, 1998). Pomeroy further states that if non-profit provision focuses on the acquisition of existing properties rather than building new projects (the traditional approach), some of these inefficiencies could be solved.

5.0 The Efficiency and Effectiveness of Rental Assistance Subsidies

There has been a longstanding debate about the most efficient and effective way for governments to house families in need (Ekos Research Associates, 1997). Rent supplements or shelter allowances have strong support as they are thought to be the most cost-effective way of providing housing for low-income households (Wolfe, 1998). However, the experiences of provinces and municipalities vary in this regard.

For instance, a study performed by Ekos Research Associates (1997) for the British Columbia Housing and Mortgage Corporation (based on data from Vancouver, Burnaby, Richmond, and Victoria), shows that the *non-profit provision of housing* is the most cost effective option. The study describes what happened to the cost for actual housing projects over a historical period in British Columbia and compares the adjusted break-even rents in non-profit projects to market rents in comparable buildings. In addition, the average costs of the non-profit vehicle are compared to an existing shelter allowance program. The study found that over the past two decades, the non-profit vehicle has been the most effective vehicle in the studied cases.

The Ekos Research Associates (1997) study reports the traditional arguments in favour of *rent supplements* (and shelter allowances), specifically that households can take advantage of lower rents in existing housing units, non-profits are less efficient than entrepreneurs, and governments would be better off using the rent supplement approach. However, their study casts serious doubt on these claims. The first claim assumes that households can find appropriate shelter (suitable, adequate and affordable) in the market, which assumes that the units exist and are available. However, while sufficient units exist, they are not available. The second claim assumes that non-profits managers are less efficient than entrepreneurs. Ekos notes, however, that non-profit managers aim to prevent rent increases, in contrast with entrepreneurs, who are more concerned about receiving a return on investment.

The report also notes that, in some jurisdictions, the policy debate is about the relative cost of helping households in their existing housing as opposed to using a non-profit approach to place them in different housing. It also explains that in order to make sense of relative program costs, there is a need to distinguish the different goals of government housing programs and compare programs with similar goals (Ekos Research Associates, 1997: 54):

If the goal is to transfer income (reducing the affordability problem) without reference to housing conditions then one is talking about an income transfer and the discussion should centre around the relative merits of a tax reduction or a monthly check. If the debate is about the merits of a housing program (a program to deal with affordability, suitability and adequacy) then this study can make a contribution to the debate. ... Where there are tight rental markets (extremely low vacancy rates) and governments wish to address supply issues at the same time as they address issues of housing need, non-profit programs can be more cost effective than subsidizing the construction of comparable market units and renting units from a landlord.

The report states that the debate about using different delivery vehicles (non-profits or the market) has been difficult to resolve because of a multiplicity of program goals and the absence of actual data that might be of use in assessing those program goals where there is some agreement about the purpose of the program.

To some extent, the Ekos Research Associates (1997) study overcomes the limitations of studies such as the Clayton Research (1993) report discussed above, as it addresses the same issue of cost-effectiveness but it does so by looking at actual cost data for units of comparable quality, in the same market area, over the same time period.

Ekos tested four hypotheses in its study:

- A. There is no difference between market and non-profit rents for comparable buildings in the same market area.
- B. There is no change in the relative position of non-profit and market rents.
- C. Non-profit rents do not fall below market rents in comparable projects.
- D. There is no difference in the cost-effectiveness of the two vehicles (cost-effectiveness occurs when one vehicle is able to deliver a unit of comparable quality at a lower cost).

The findings were as follows:

- For all comparisons analyzed in the study, the non-profit adjusted break-even rents are initially higher than market rents. Thus, Hypothesis A should be rejected.
- For all the cases, non-profit rents *fall* relative to market rents in comparable building. Accordingly, one would reject hypothesis B.
- For all comparisons, the non-profit rents become less than market rent in a comparable building during the period under study. Hypothesis C should thus be rejected.
- Finally the report affirms that on average, over time, it is less expensive to subsidize households in non-profit projects. For example, in year 25, the comparable units are \$2,200 dollars per year less costly to subsidize than comparable market units. Thus, Hypothesis D should be rejected since non-profit provision is indeed less expensive than subsidized market rental units.

The study concludes that, in all cases, “non-profit rents start out higher than market rents and over time fall relative to market rents.” Thus, “non-profit projects on average were less expensive to subsidize than market rents when similar projects were compared” (Ekos Research Associates, 1997: 50).

In Ontario, the discussion about the most efficient and effective way for the government to solve the affordable housing issue took a new turn when the Ontario Ministry of Housing (1994) presented a report comparing non-profit housing and shelter allowances. The report examined the relative costs of the two programs in Toronto, assuming the provision of 1,000 units of assisted housing under each program over a 50-year period. It concluded that Ontario's *non-profit housing program* was a significantly more cost-effective means of providing assistance to low-income renters than shelter allowances.

Clayton Research Associates (1994) replied to Ontario's report, arguing that the Ontario analysis was based on an extensive series of assumptions that were difficult to formulate due to the lack of solid information available. The Ministry report shows operating costs for non-profit housing that are substantially lower than those used in Clayton's analysis. The Ministry assumes \$4,800 in annual operating cost per unit, while Clayton Research assumes an annual operating cost of \$5,500. The Ministry based its assumption on a survey of operating costs, while Clayton based its on discussions with Ministry staff. Moreover, according to Clayton, a study by Ernst and Young released on 1991 shows that annual operating costs of private rental buildings in Ontario built since 1975 was \$4,600. Considering the annual increases over the period, the average operating costs for private rental buildings in 1993 would be \$5,170.

In addition, the Clayton Research (1994) analysis assumed an average rent of \$670 per month, while the Ministry analysis assumed a much higher rent of \$770. Clayton Research points out that most analyses of shelter allowances assume that maximum rents would be somewhere around or below the median rent for accommodation suitable for the number of people in the household. Roughly one-third of the non-profit units are built for seniors, most of whom are single people for whom a bachelor unit (median rent of \$490) would be adequate. Many of the remaining units are targeted at other singles or couples without children, where either a bachelor unit or a one-bedroom unit (median rent of \$600) would be adequate. Clayton concludes that the Ministry's use of \$770 per month for the average rent for shelter allowance recipients significantly overstates the average rent that shelter allowance recipients would pay.

Clayton Research (1994) states that even with the Ministry's assumption regarding (low) non-profit operating costs and (high) average rents for shelter allowance recipients, shelter allowances are still less expensive in the early years of the 50-year period until year 21, in which the difference equals zero. The total difference in subsidies adds up to over \$60 million, not including interest. By Clayton's calculations, the annual interest cost on the accumulated difference in the cost of the two programs is over \$10 million per year. Clayton Research notes that the interest which must be paid on this difference in program costs does not appear anywhere in the Ministry's analysis, which neglects a crucial consideration in assessing the long-term costs of the programs.

For all of the reasons stated above, Clayton Research (1994: 1) concludes that "shelter allowances are clearly a much more cost-effective means of providing housing for needy than non-profit housing."

6.0 Targeting Housing Programs to Meet Specific Objectives

As the previous discussion has shown, the effectiveness of any particular demand-side approach to creating affordable housing is directly related to the objectives for which that initiative is designed, as well as the specific circumstances in the region it is implemented. There are various aspects to be considered when selecting and designing a program (Pomeroy, 1998: A-2):

- **Restricted versus entitlement access:** A program could be designed to include only people that fall under a specified eligibility criteria. Pomeroy highlights that social assistance is a universal entitlement to households that pass a means and liquid asset test. Conversely, non-profit or rent supplement units are limited and can be allocated to only a small proportion of the households that may be eligible.
- **Eligible households:** Programs could adopt specific eligibility criteria in order to target assistance in accordance with programs objectives.
- **Nature of Benefit:** The design of the program specifies the total amount of benefit. For instance, shelter allowance program designs involve a benefit that is less than 100 percent of the affordability gap between rent-geared-to-income and market rent. In Quebec, for example, the program pays 75 percent of the difference between 30 percent of adjusted income and actual market rent.
- **Participation rates and duration of assistance:** The design of the program could affect program participation rates, the duration of assistance, and thus program costs. The shelter allowance programs in BC, Manitoba and Quebec assist from 50 to 64 percent of eligible households.
- **Labour force impacts:** The design of a program could set incentives for people to make their way into the labour market. However, it could also provide incentives for beneficiaries to stay out of the labour market. For instance, Fallis (1993, as cited in Pomeroy, 1998: A-15⁴) asserts that providing a household with non-profit housing will reduce labour force participation more than would an equally costly income assistance program.
- **Long-term costs:** The design of a program should include an assessment of long-term program costs.

There are two recent examples of programs that successfully achieved their goals through a carefully thought out design: Toronto's Emergency Homeless Pilot Project and Montreal's ROMEL Program (Regroupement des Organismes du Montréal-Ethnique pur Le Logement).

The City of Toronto produced a 2004 report called *From Tent City to Housing* (Gallant, Brown, and Tremblay, 2004), which evaluates Toronto's Emergency Homeless Pilot Project (EHPP). The EHPP provided housing in the private sector for a group of people deemed "hard-to-house," many of whom had been homeless for extended periods and struggled with addictions and mental health issues. It shows a good example of a rental assistance program applied to a specific target group. EHPP is the latest rent supplement program to be added to the Toronto Community Housing Corporation's (TCHC) portfolio of 3,000 supplements. EHPP participants pay a portion of the rent based on their occupant's income. TCHC pays the difference up to a maximum market rent that is equal to the CMHC established median rent for Toronto.

⁴ Pomeroy is citing Fallis, G. (1993), "On the Design of Social Policy Instruments: The Case of Income Assistance, Shelter Allowances, and Non-Profit Housing" (*Progress in Planning* Vol. 40, Part 1: n.p.).

In this program, the rent supplement is attached to the *individual* rather than to the *unit* in order to provide flexibility. Under the program, landlords were guaranteed first and last months' rent in full, 100 percent of the rent for the second and third months, and monthly rent supplements. The document highlights that the program depends to a great extent on two factors. The first is the availability of market rental units. The second factor is the willingness of landlords to engage in formal agreements with TCHC.

EHPH has provided housing in the private sector for a specific group of 118 people and 89 percent of the households remained housed 18 months after the initiation of the program. Observations by the researchers indicate that much of the housing stock that was accessed for the EHPH is adequate or above average in quality and that the participants expressed a high degree of satisfaction with their individual units mainly due to their ability to choose the location that best fit their needs. For people who have been homeless for extended periods, the EHPH cost of \$11,631 per person per annum offers a cost effective alternative to accommodation and support in the shelter system, estimated at \$16,156 per year.

Another good example of a program targeting specific needs is Montreal's ROMEL program. Chisholm (2003) states that ROMEL is a community group with a mandate to serve newcomers, which sets out to combine housing, economic development and home daycare in the Côte-des-Neiges neighbourhood of Montréal. The project was accomplished with a number of partners and components: a community organization to assist with the creation of a small restaurant, a group of parents to work on the development of home daycare programs, and a training component for future residents of the cooperative who would eventually manage the completed housing project.

Chisholm pointed out that the project's goal was to address particular issues that affect newcomers such as discrimination in the housing market and the newcomers' lack of a credit history, the latter of which makes it difficult to set up accounts with utilities companies. ROMEL wanted to make the transition to Canada a more positive experience, so they decided that the first step was to work at providing housing, which would give the newcomers a start in establishing a network, working on language, accessing services, establishing a credit record, and so on.

The housing portion of the project was funded by the Province of Québec through the Accès-Logis program. The Province provided a grant representing 45 percent of the capital costs, while the City of Montréal contributed a further 30 percent. Chisholm states that the City has also contributed to the success of the project through the purchase of a building in the neighbourhood that was used to provide community services and a library. The balance of the capital cost was financed through a conventional mortgage. With these grants in place, the co-operative is able to charge rents that are affordable to low-income immigrant families.

The ROMEL community group stated that “the Housing-Integration project was intended to provide support to families with respect to affordable housing, support for early childhood, and support for social and professional integration for disadvantaged populations, with the goal of full integration. We recommend the implementation of such multi-purpose projects that correspond to community priorities. In other words, the creation of social housing should be accompanied by the creation of businesses and services that are appropriate to the community” (Chisholm, 2003:34).

7.0 Summary of the Literature Review Recommendations

This literature review has identified a fundamental role for the federal government to play in defining a national housing policy. The Federation of Canadian Municipalities has made key recommendations regarding the need to expand the supply of affordable housing units for specific populations, preserve existing affordable housing stock, create a shelter allowance program, and reform the tax treatment of rental investments. The literature has also shown that the selection of an appropriate target audience for housing programs is critical for effectively resolving affordability issues. Based on these findings, both demand and supply measures are appropriate in different circumstances, depending on the aim of the policy goal, as follows:

- **Targeting Specific Populations** – To target a specific population sector requiring immediate assistance, the literature recommends an *income supplement* program.
- **Promoting Choice** – To promote flexibility, choice, mobility, and economic integration, *income supplements* are recommended. This assumes that the stock of rental properties is fixed, at least in the short term, and that lower-rent-valued rental stock is available and distributed around the city (as opposed to concentrated in a specific area). It should be noted, however, that a large-scale implementation of this kind of program would put pressure on the lower level of the rental market and thus may raise rent levels in the short term.
- **Non-Profit Provision** – To make a long-term commitment to tackle affordability, suitability and adequacy issues through a comprehensive program, the literature recommends using implicit rental supplements via *non-profit housing provision*.
- **Increasing Housing Supply** – To increase the supply of affordable housing units, the literature recommends providing *capital grants* to non-profit organizations for the creation of new or refurbished stock.

The next section of this report examines the financial implications of adopting certain housing program options and applies these to the Calgary context.

8.0 Financial Analysis of Housing Program Options

Calgary's shelter expenditure is the fourth highest of major Canadian cities. While the average annual household disbursement on shelter is \$10,900 in Canada, it is \$13,213 in Calgary (City of Calgary, 2003c: 65). Nearly 18 percent of all Calgary households (58,555 households) have a gross annual income of less than \$38,000 and spend more than 30 percent of their income on shelter costs, leaving them at high risk of homelessness (City of Calgary, 2004c: 2). As with any public program, for Calgary as a municipality and for Alberta as a province, there is limited funding available to provide affordable housing solutions to those in need.

Currently, the most significant funding available in Alberta for affordable housing is through the federal-provincial Affordable Housing Partnerships Initiative (AHPI), which provides an average of \$33,560,000 per year (through 2006) towards capital building of affordable housing projects. However, Alberta's Income Support (IS) program also provides funds for shelter, but the annual aggregate shelter component amount for the program could not be determined. Alberta's program Assured Income for the Severely Handicapped (AISH) provides a lump sum for income support, which is intended to contribute to the cost of shelter but does not have an identified shelter allowance.

Housing affordability represents a critical challenge in Calgary, and analyzing the financial implications of various affordable housing programs is warranted to understand where and how the available funding dollars can and should be spent. This financial analysis examines how the AHPI government funds could be used for different affordable housing options in order to effectively address housing affordability problems in Calgary. The analysis will cover the following three possibilities for Calgary, which fit within the Federation of Canadian Municipalities' proposed affordable housing strategy for Canada (Pomeroy, 2004):

- Expand the supply of affordable housing targeted to the working poor
- Preserve existing affordable housing stock, and
- Create a new shelter allowance program for working poor renters and address deficiencies in the shelter component of provincial income assistance programs.

As the literature review revealed, the effectiveness of any particular housing program is directly related to the objectives for which that initiative is designed (Pomeroy, 1998: A-2) and the specific circumstances of a certain region. Therefore, there are two main aspects to be considered when analyzing a program. First, the goal of the program and which target group is to be reached through the program should be considered. Second, the dynamics of the local housing market have to be understood.

In order to meet the objectives, a program could choose among various design factors such as restricted versus entitlement access; eligible households; the nature of the benefit granted; participation rates; duration of assistance for specific program types; labour force impacts; and long-term costs. Therefore, the effectiveness of any particular program cannot be analyzed purely from a financial perspective but must consider a combination of financial and program design factors.

The following analyses focus on four options for addressing housing affordability problems: (1) new capital build projects, (2) capital 'acquire and renovate' projects, (3) rent supplement programs, and (4) income supplement programs. Each will be discussed in turn. It is important to reiterate that this analysis is purely economic and corresponds with the housing policy direction provided in the literature review. It does not discuss the need or costs for social supports, which are recognized as an integral part of many affordable housing programs.

The financial analyses assume the following four types of housing units and associated household sizes apply to the analysis of each option:

1. Family-sized 850 square foot two-bedroom units for three-person households
2. Modest 625 square foot one-bedroom units for two-person households
3. Small 450 square foot bachelor units for one-person households, and
4. Very small 225 square foot single room occupancy units for one-person households.

These assumed household sizes maximize the number of households that could suitably be housed by each unit size. The first three housing unit types are sizes and configurations commonly found in the Calgary area. The fourth unit type, the very small 225 square foot bachelor units for one-person households, is a unit type that is not typical in the Calgary area or in Canada as a whole, but is a realistic alternative for use in affordable housing projects.

This small 225 square foot single room occupancy unit was analyzed by Pomeroy (2004) as a potentially positive future approach to affordable housing development initiatives. Similar sizes of affordable housing units are in existence in some American cities. Pomeroy states that these small units would require careful design to "maximize light to facilitate habitability" and notes that the Province of Ontario analyzed this option in 1998 and determined that it is viable to "develop well designed and habitable self-contained small units (200-225 sq ft) with ... little or no subsidy" (Pomeroy, 2004: B4). As a result of that study, the Ontario government reduced the minimum building unit size to 175 square feet in the building code to encourage such developments.

Pomeroy (2004) also notes that two small-unit developments have been built in Victoria and Vancouver, but states that the idea of these small units needs to evolve further at the municipal level. At present, very small units are not a popular option in the Calgary market and, as previously noted, are not a preferred choice even in a larger 'bachelor' format among Calgary Housing Company clients.

8.1 Option 1 – New Capital Build Projects

Capital build projects are currently where most of the federal and provincial funding for affordable housing is allocated. For the four-year period from April 1, 2002 to March 31, 2006, Alberta budgeted to provide \$134.2 million dollars under the Affordable Housing Partnerships Initiative (AHPI) program, a joint federal-provincial program that provides capital funding dollars to new affordable housing building projects. A total of \$67.12 million in federal funding (to be matched provincially) was promised through AHPI during the five-year Canada-Alberta Affordable Housing Agreement ending March 31, 2006.

Funding is allocated on a case-by-case basis to affordable housing building initiatives, based on need, financial viability, sustainability (that is, operating without ongoing subsidies), project design and location. The units must remain affordable for 20 years (Government of Alberta, 2005). Forty-five grants have been awarded under AHPI in Alberta from April 2002 to March 2005, creating approximately 2,318 new affordable housing units each year within Alberta, with an average grant amount of \$2.2 million per project or \$42,520 per unit (see Table 16). It can be expected that capital builds will remain one of the main options for future expansion of available affordable housing units in Alberta and, therefore, this option is analyzed through this report.

Financial Analysis of Option 1

Four types of affordable housing units were analyzed:

- Family-sized 850 square foot two-bedroom units for three-person households (assuming two income earners)
- Modest 625 square foot one-bedroom units for two-person households (assuming two income earners)
- Small 450 square foot bachelor units for one-person households (assuming one income earner), and
- Very small 225 square foot single room occupancy units for one-person households (assuming one income earner).

The analysis looks at the capital costs associated with building each type of unit, the income and supportable rent of the associated household type assumed for each type of unit (30 percent of gross annual household income), the operating costs for a non-profit organization to run the building over time, and the supportable debt available (based on net operating costs at a 1.05 percent debt value ratio⁵). From this analysis, the amount of capital funding required to purchase the land and build each unit is calculated after all costs and supportable debt (available financing) are considered.

⁵ The 1.05 percent debt value ratio means that the mortgage would provide funds based on 95 percent of the net operating income of the affordable housing project being available for mortgage payments. The analysis does not include any mortgage insurance that may be required.

This analysis assumes a land cost of \$25,000 per unit and \$130 per square foot for building costs, which remain constant across the 850, 625, and 400 square foot housing unit types analyzed. These cost assumptions are based on the actual costs of the Manchester affordable housing project built in Calgary but use 2004 building costs for concrete high-rise construction. Using the assumption that these three unit sizes have the same building cost per square foot and the same land cost provides a good baseline for comparison purposes of the different unit size options.

The fourth housing type analyzed, the 225 square foot unit, uses cost to build, land cost, and operating cost assumptions based on Pomeroy's (2004) analysis of this small unit type. As this option has not been put into use in many Canadian municipalities, the cost assumptions are more theoretical.

It should be noted that the land and building cost associated with each size of unit would not necessarily be as consistent as this analysis uses in its assumptions because each unit, regardless of size, would require bathroom fixtures, kitchen cabinets and appliances, which would drive up the square footage cost on smaller units. In general, it costs more per square foot to install kitchens and bathrooms than it does to build bedrooms which are rooms without such fixtures, cabinets, or appliances. Similarly, the land cost for smaller units would likely be lower than the assumed \$25,000 depending on the particular size.

Four tables are provided for this option, each of which uses a different assumption about the income available to prospective tenants, which affects the level of subsidy required. Table 1 uses pre-tax Low-Income Cut-Offs for various family types, as calculated by Statistics Canada (2004). Table 2 uses the new minimum wage that will go into effect in Alberta in September 2005. The third and fourth tables use income support data for two Alberta programs – Assured Income for the Severely Handicapped or AISH (Table 3) and Income Supports or IS (Table 4).

Low-Income Cut-Off Data

Table 1 show capital build costs for four unit types, using income data for before-tax Low-Income Cut-Offs (LICOs) for 2003, as calculated by Statistics Canada (2004). The table shows how different sized units and the family sizes associated with each unit affect the costs of these capital projects and the capital grant funding required.

The monthly payments available to pay for financing were calculated and then a present value calculation was performed to determine the amount of financing that would be available to each unit size based on the monthly payment that could be supported. The amount of financing available was then deducted from the total capital cost, in each unit size category, to determine the final amount of capital grant dollars required to fund each unit of an affordable housing building project.

Table 1. Capital Build Costs for Four Unit Types, Using Low-Income Cut-Off Data

Description of Costs	New Capital Build Costs for Four Unit Types (\$)			
	850 sq. ft. unit	625 sq. ft. unit	400 sq. ft. unit	225 sq. ft. unit
Capital Costs (including GST)				
Average cost to build (concrete high-rise) ¹	110,500.00	81,250.00	52,000.00	54,000.00
Land cost ²	25,000.00	25,000.00	25,000.00	10,800.00
Total Capital Cost	\$ 135,500.00	\$ 106,250.00	\$ 77,000.00	\$ 64,800.00
Rental Income				
Average annual low income ³	30,774.00	24,745.00	19,795.00	19,795.00
Average market rent per month ⁴	807.00	655.00	515.00	515.00
10% below average market rent ⁵	726.30	589.50	463.50	463.50
30% RGI rent per month	769.35	618.63	494.88	494.88
Average annual rent revenue ⁶	9,232.20	7,423.50	5,938.50	5,938.50
Operating Costs for a Non-Profit				
Annual costs ⁷	3,950.00	3,950.00	3,950.00	2,713.00
Net Annual Operating Income				
Net operating income	5,282.20	3,473.50	1,988.50	3,225.50
Available at 1.05 debt coverage ratio	5,030.67	3,308.10	1,893.81	3,071.90
Monthly payments available	419.22	275.67	157.82	255.99
Supportable debt (25 year amortization at 7.0% interest) ⁸	59,662.59	39,233.27	22,460.16	36,432.11
Capital Grants Required Per Unit	\$ 75,837.41	\$ 67,016.73	\$ 54,539.84	\$ 28,367.89
<p>Notes:</p> <p>1 Based on the Manchester project but using 2004 building costs of \$130 per square foot for concrete high-rise construction.</p> <p>2 Based on the Manchester project.</p> <p>3 Based on before-tax Low-Income Cut-Offs (LICOs) for 2003 from Statistics Canada (2004: 25).</p> <p>4 Based on the 2004 rental market report for Calgary from CMHC (2004b).</p> <p>5 To qualify for funding through the Affordable Housing Partnership Initiative, rents must be lower than 10 percent below average market rent (Government of Alberta, 2005).</p> <p>6 Calculated as "30% RGI rent per month" multiplied by 12 months.</p> <p>7 Based on FCM (2000: Technical Appendices, Exhibit A-1).</p> <p>8 Mortgage calculations based on present value formula.</p> <p><u>Source for Chart Methodology:</u> FCM (2000: Technical Appendices).</p>				

The analysis shows that it costs \$64,800 to \$135,500 to build a new affordable housing unit, depending on size of unit, construction cost, and land cost. The proportion of each size of unit required in a particular municipality would be determined by the city's low-income household population and the design of the affordable housing program for the city. The unit size affects the cost to build and the income that will be derived from rent, which will provide the funds to operate the building and the funds to pay the principal and interest on the financing obtained for the building. It is assumed that as much supportable financing that is available for a project (at a 7 percent interest rate, 25 year amortization, 95 percent of net operating income financed) will be obtained to fund some of the building and carrying costs associated with the project.

The outcome of this analysis shows that \$28,368 to \$75,837 in capital grant funds is required per unit to support new capital build projects. While the amount of grant dollars required for the 850, 625 and 400 square foot units does not differ significantly, the amount of grant funds required to support the building of small 225 square foot units is significantly less than for the other sized units because of the lower building cost and the assumed lower operating cost per unit per year based on Pomeroy's (2004) figures.

It should be noted that Table 1 analyzes capital grants required for households with income at the *top end* of the Low-Income Cut-Offs (LICOs) defined by Statistics Canada (2004), which are upwardly adjusted based on household size. These households can afford to pay rent that falls between average market rent and "near-market rent," which is considered to be up to 10 percent *less* than average market rent (Calgary Homeless Foundation, 2003: 10). In other words, these LICO households can afford to pay rent that is from one to nine percent lower than average market rent and, therefore, do not qualify for AHPI funding.

Minimum Wage Data

In order to qualify for AHPI funding, rents must fall *below* near-market rent, meaning they must be *more than 10 percent lower than average market rent*. Table 2 therefore examines the level of subsidy that would be required to shelter households with full-time minimum wage earners at the new Alberta rate of \$7.00 per hour (which comes into effect 2005 September 1). The table assumes that one- and two-bedroom units are occupied by two full-time minimum wage earners and that bachelor units are occupied by one full-time minimum wage earner.

Table 2. Capital Build Costs for Four Unit Types, Using New Minimum Wage Data

Description of Costs	New Capital Build Costs for Four Unit Types (\$)			
	850 sq. ft. unit	625 sq. ft. unit	400 sq. ft. unit	225 sq. ft. unit
Capital Costs (including GST)				
Average cost to build (concrete high-rise) ¹	110,500.00	81,250.00	52,000.00	54,000.00
Land cost ²	25,000.00	25,000.00	25,000.00	10,800.00
Total Capital Cost	\$ 135,500.00	\$ 106,250.00	\$ 77,000.00	\$ 64,800.00
Rental Income				
Average annual low income ³	29,120.00	29,120.00	14,560.00	14,560.00
Average market rent per month ⁴	807.00	655.00	515.00	515.00
10% below average market rent ⁵	726.30	589.50	463.50	463.50
30% RGI rent per month	728.00	728.00	364.00	364.00
Average annual rent revenue ⁶	8,736.00	8,736.00	4,368.00	4,368.00
Operating Costs for a Non-Profit				
Annual costs ⁷	3,950.00	3,950.00	3,950.00	2,713.00
Net Annual Operating Income				
Net operating income	5,282.20	3,473.50	1,988.50	3,225.50
Available at 1.05 debt coverage ratio	4,558.10	4,558.10	398.10	1,576.19
Monthly payments available	379.84	379.84	33.17	131.35
Supportable debt (25 year amortization at 7.0% interest) ⁸	54,055.88	54,055.88	4,720.50	18,692.71
Capital Grants Required Per Unit	\$ 81,444.12	\$ 52,194.12	\$ 72,279.50	\$ 46,107.29
<p><u>Notes:</u></p> <p>1 Based on the Manchester project but using 2004 building costs of \$130 per square foot for concrete high-rise construction.</p> <p>2 Based on the Manchester project.</p> <p>3 Based on Alberta's new minimum wage of \$7.00 per hour (effective 2005 September 1).</p> <p>4 Based on the 2004 rental market report for Calgary from CMHC (2004b).</p> <p>5 To qualify for funding through the Affordable Housing Partnership Initiative, rents must be lower than 10 percent below average market rent (Government of Alberta, 2005).</p> <p>6 Calculated as "30% RGI rent per month" multiplied by 12 months.</p> <p>7 Based on FCM (2000: Technical Appendices, Exhibit A-1).</p> <p>8 Mortgage calculations based on present value formula.</p> <p><u>Source for Chart Methodology:</u> FCM (2000: Technical Appendices).</p>				

Table 2 shows that minimum wage earners can afford to pay near-market to average market rent when incomes for two full-time minimum wage earners are combined. However, a lone full-time minimum wage earner cannot afford to pay even near-market rent (at 10 percent *lower* than average market rent) and therefore requires a subsidy in order to be affordably housed. The level of subsidy required by lone full-time minimum wage workers is eligible for AHPI funding.

To build new 400 square foot bachelor units (for lone full-time minimum wage earners), \$72,280 is required in capital grants. With the existing funding available in Phase 1 of the AHPI program (at \$50,000 per unit), there is a shortfall of \$22,280 per unit due to the level of subsidy required.

Assured Income (AISH) Data

To meet the affordable housing needs of Calgarians with income that is even lower than that of full-time minimum wage workers, Table 3 analyzes capital build costs for individuals with a permanent disability receiving income support from Alberta's Assured Income for the Severely Handicapped (AISH) program. The table assumes that one- and two-bedroom units are occupied by two AISH recipients and that bachelor units are occupied by one AISH recipient.

Table 3. Capital Build Costs for Four Unit Types, Using Assured Income (AISH) Data

Description of Costs	New Capital Build Costs for Four Unit Types (\$)			
	850 sq. ft. unit	625 sq. ft. unit	400 sq. ft. unit	225 sq. ft. unit
<i>Capital Costs (including GST)</i>				
Average cost to build (concrete high-rise) ¹	110,500.00	81,250.00	52,000.00	54,000.00
Land cost ²	25,000.00	25,000.00	25,000.00	10,800.00
Total Capital Cost	\$ 135,500.00	\$ 106,250.00	\$ 77,000.00	\$ 64,800.00
<i>Rental Income</i>				
Average annual low income ³	22,920.00	22,920.00	11,460.00	11,460.00
Average market rent per month ⁴	807.00	655.00	515.00	515.00
10% below average market rent ⁵	726.30	589.50	463.50	463.50
30% RGI rent per month	573.00	573.00	286.50	286.50
Average annual rent revenue ⁶	6,876.00	6,876.00	3,438.00	3,438.00
<i>Operating Costs for a Non-Profit</i>				
Annual costs ⁷	3,950.00	3,950.00	3,950.00	2,713.00
<i>Net Annual Operating Income</i>				
Net operating income	2,926.00	2,926.00	-512.00	725.00
Available at 1.05 debt coverage ratio	2,786.67	2,786.67	n/a	690.48
Monthly payments available	232.22	232.22	-1,066.67	57.54
Supportable debt (25 year amortization at 7.0% interest) ⁸	33,047.75	33,047.75	-12,800.00	8,188.65
Capital Grants Required Per Unit	\$ 102,452.25	\$ 73,202.25	\$ 89,800.00	\$ 56,611.35
Notes:				
1 Based on the Manchester project but using 2004 building costs of \$130 per square foot for concrete high-rise construction.				
2 Based on the Manchester project.				
3 Based on 2005 incomes for Alberta's program Assured Income for the Severely Handicapped (Government of Alberta, 2004a).				
4 Based on the 2004 rental market report for Calgary from CMHC (2004b).				
5 To qualify for funding through the Affordable Housing Partnership Initiative, rents must be lower than 10 percent below average market rent (Government of Alberta, 2005).				
6 Calculated as "30% RGI rent per month" multiplied by 12 months.				
7 Based on FCM (2000: Technical Appendices, Exhibit A-1).				
8 Mortgage calculations based on present value formula.				
Source for Chart Methodology: FCM (2000: Technical Appendices).				

Table 3 shows that assured income recipients cannot afford to pay even near-market rent (which is one to nine percent lower than average market rent) and therefore require a deep subsidy in order to be affordably housed. The level of subsidy required by AISH recipients is eligible for AHPI funding.

In this scenario, the capital grants required range from \$56,611 to \$102,452. With the existing funding available in Phase 1 of the AHPI program (at \$50,000 per unit), shortfalls range from \$6,611 for a very small bachelor suite to \$52,452 for a two-bedroom apartment. The rent revenue expected for a 400 square foot apartment does not support financing and therefore represents a deficit. This is not to say that this unit size would not be built. Rather, it would have to be funded through a mixed model approach where larger units with more available financing could support smaller units with little or no available financing, or where non-subsidized units (rented at market rent rates) could support units in need of deep subsidy. By using these financing models, households requiring small (or no) subsidies support households requiring deeper subsidies.

Income Support (IS) Data

Table 4 similarly analyzes capital build costs for households receiving income support from Alberta's Income Supports (IS) program. The table assumes that a bachelor unit is occupied by a lone employable IS recipient, a one-bedroom unit is shared by two employable IS recipients, and a two-bedroom unit is occupied by an employable lone parent who is an IS recipient with one child.

Based on data from the *Alberta Works' Financial Benefits Summary* and the client guide for *Alberta Works for Expected to Work and Not Expected to Work Clients* (Government of Alberta, 2004b; 2004c), a lone employable IS recipient is assumed to earn the base total welfare income of \$4,824 per year plus employable earnings exemptions of \$1,380 per year (\$115 per month) and 25 percent of earnings (calculated at \$7.00 per hour for 20 hours per week, or \$1,820 per year), for a grand total of \$8,024 per year. A lone parent with one child is assumed to earn a base total welfare income of \$10,284 per year plus employable earnings exemptions of \$2,760 per year (\$230 per month) and 25 percent of earnings (calculated at \$7.00 per hour for 20 hours per week, or \$1,820 per year), for a grand total of \$14,864 per year.

Table 4. Capital Build Costs for Four Unit Types, Using Income Support (IS) Data

Description of Costs	New Capital Build Costs for Four Unit Types (\$)			
	850 sq. ft. unit	625 sq. ft. unit	400 sq. ft. unit	225 sq. ft. unit
Capital Costs (including GST)				
Average cost to build (concrete high-rise) ¹	110,500.00	81,250.00	52,000.00	54,000.00
Land cost ²	25,000.00	25,000.00	25,000.00	10,800.00
Total Capital Cost	\$ 135,500.00	\$ 106,250.00	\$ 77,000.00	\$ 64,800.00
Rental Income				
Average annual low income ³	14,864.00	16,048.00	8,024.00	8,024.00
Average market rent per month ⁴	807.00	655.00	515.00	515.00
10% below average market rent ⁵	726.30	589.50	463.50	463.50
30% RGI rent per month	371.60	401.20	200.60	200.60
Average annual rent revenue ⁶	4,459.20	4,814.40	2,407.20	2,407.20
Operating Costs for a Non-Profit				
Annual costs ⁷	3,950.00	3,950.00	3,950.00	2,713.00
Net Annual Operating Income				
Net operating income	509.20	864.40	-1,542.80	-305.80
Available at 1.05 debt coverage ratio	534.66	907.62	n/a	n/a
Monthly payments available	44.56	75.64	n/a	n/a
Supportable debt (25 year amortization at 7.0% interest) ⁸	6,341.43	10,764.50	-38,570.00	-7,645.00
Capital Grants Required Per Unit	\$ 129,158.57	\$ 95,485.50	\$ 115,570.00	\$ 72,445.00
<p>Notes:</p> <p>1 Based on the Manchester project but using 2004 building costs of \$130 per square foot for concrete high-rise construction.</p> <p>2 Based on the Manchester project.</p> <p>3 Based on 2004 incomes for Alberta's program Income Supports, as reported by the Government of Alberta (2004b).</p> <p>4 Based on the 2004 rental market report for Calgary from CMHC (2004b).</p> <p>5 To qualify for funding through the Affordable Housing Partnership Initiative, rents must be lower than 10 percent below average market rent (Government of Alberta, 2005).</p> <p>6 Calculated as "30% RGI rent per month" multiplied by 12 months.</p> <p>7 Based on FCM (2000: Technical Appendices, Exhibit A-1).</p> <p>8 Mortgage calculations based on present value formula.</p> <p>Source for Chart Methodology: FCM (2000: Technical Appendices).</p>				

Table 4 shows that income support recipients cannot afford to pay even near-market rent (which is one to nine percent lower than average market rent) and therefore require a deep subsidy in order to be affordably housed. The level of subsidy required by IS recipients is eligible for AHPI funding.

Capital build costs in this scenario range from \$72,445 to \$129,159. With the existing funding available in Phase 1 of the AHPI program (at \$50,000 per unit), shortfalls range from \$22,445 for a very small bachelor suite to \$79,159 for a two-bedroom apartment. The rent revenue from both of the bachelor suite options does not support financing and therefore represents a deficit. As with the AISH scenario, a mixed model approach would be needed in which larger units with more available financing could support smaller units with little or no available financing, or non-subsidized units could support units in need of deep subsidy.

8.2 Option 2 – Capital ‘Acquire and Renovate’ Projects

Acquiring existing buildings and renovating these buildings into affordable housing units is an alternative to building new affordable housing units. It is an alternative that has not been completely accepted or fully analyzed in terms of its costs and potential role in providing affordable housing. Pomeroy (2004) recommends changing the capital program to allow non-profits to purchase existing buildings from for-profit companies to use as affordable housing. To address recommendations to the affordable housing program, the federal government announced new flexibilities for Phase 2 of the Federal-Provincial-Territorial Affordable Housing Program, including options for acquisition and renovation (CMHC, 2005).

The financial analysis of this option shows that acquiring and renovating existing buildings can be beneficial for providing affordable housing units at costs below those for building new. It is assumed that existing buildings are on the market for purchase, including buildings that are currently earning market rent, which could be renovated and converted to low-income rental units. For this analysis, \$120 per square foot is the assumed cost of acquiring and renovating existing buildings, versus the \$130 per square foot cost (plus the cost of land) of building new affordable housing concrete high-rises, as discussed in Option 1. The figure of \$120 per square foot is based on a financial analysis done by Boardwalk Rental Communities (2005), as reported in a January 2005 presentation called *Affordable Housing Community Consultation: Lessons Learned and a New Approach*. While Boardwalk uses a cost of \$110 per square foot, this analysis uses \$120 per square foot, which is based on Boardwalk’s costs plus a buffer of \$10 per square foot, in order to make a more conservative estimate of the costs to acquire and renovate existing properties.

The \$120 per square foot figure will be used consistently across all four housing unit sizes analyzed. It should be noted that the square footage cost to acquire and renovate buildings could vary depending on the location of the building, the size of existing and planned units, the condition of the building at the time of purchase, and the planned finished condition of the building. As with Option 1, regardless of unit size, Option 2 uses \$120 per square foot as a baseline for costing, although the cost of kitchen and bathroom renovations could drive up the square footage renovation cost, but decrease the per unit acquisition portion of the cost on smaller units. Using the assumption that all units will cost \$120 per square foot to acquire and renovate provides us with a good baseline for comparison purposes of the different unit size options.

Financial Analysis of Option 2

As with the capital build scenarios presented in Option 1, the same four types and sizes of affordable housing units were analyzed – 850, 625, 400, and 225 square foot units. The analysis looks at the capital costs associated with acquiring and renovating each type of unit, the income and supportable rent of the associated household type, the operating costs for a non-profit organization to run the building over time, and the supportable debt available.⁶ From this analysis, an amount of capital funding required to purchase an existing building and renovate it into affordable housing units is calculated after all costs and supportable debt are considered, as shown in Table 5.

Table 5. Costs to Acquire and Renovate Existing Buildings, Using Low-Income Cut-Off Data

Description of Costs	Acquisition and Renovation Costs for Four Unit Types (\$)			
	850 sq. ft. unit	625 sq. ft. unit	400 sq. ft. unit	225 sq. ft. unit
Capital Costs (including GST)				
Average cost to acquire and renovate ¹	102,000.00	75,000.00	48,000.00	27,000.00
Total Capital Cost	\$ 102,000.00	\$ 75,000.00	\$ 48,000.00	\$ 27,000.00
Rental Income				
Average annual low income ²	30,774.00	24,745.00	19,795.00	19,795.00
Average market rent per month ³	807.00	655.00	515.00	515.00
10% below average market rent ⁴	726.30	589.50	463.50	463.50
30% RGI rent per month	769.35	618.63	494.88	494.88
Average annual rent revenue ⁵	9,232.20	7,423.50	5,938.50	5,938.50
Operating Costs for a Non-Profit				
Annual costs ⁶	3,950.00	3,950.00	3,950.00	2,713.00
Net Annual Operating Income				
Net operating income	5,282.20	3,473.50	1,988.50	3,225.50
Available at 1.05 debt coverage ratio	5,030.67	3,308.10	1,893.81	3,071.90
Monthly payments available	419.22	275.67	157.82	255.99
Supportable debt (25 year amortization at 7.0% interest) ⁷	59,662.59	39,233.27	22,460.16	36,432.11
Capital Grants Required Per Unit	\$ 42,337.41	\$ 35,766.73	\$ 25,539.84	- \$ 9,432.11
<p>Notes:</p> <p>1 Based on Boardwalk Rental Communities (2005), but adding a \$10 per square foot buffer.</p> <p>2 Based on before-tax Low-Income Cut-Offs (LICOs) for 2003 from Statistics Canada (2004: 25).</p> <p>3 Based on the 2004 rental market report for Calgary from CMHC (2004b).</p> <p>4 To qualify for funding through the Affordable Housing Partnership Initiative, rents must be lower than 10 percent below average market rent (Government of Alberta, 2005).</p> <p>5 Calculated as "30% RGI rent per month" multiplied by 12 months.</p> <p>6 Based on FCM (2000: Technical Appendices, Exhibit A-1).</p> <p>7 Mortgage calculations based on present value formula.</p> <p>Source for Chart Methodology: FCM (2000: Technical Appendices).</p>				

⁶ The 1.05 percent debt value ratio means that the mortgage would provide funds based on 95 percent of the net operating income of the affordable housing project being available for mortgage payments. The analysis does not include any mortgage insurance that may be required.

The analysis shows that it costs from \$27,000 to \$102,000 to acquire and renovate existing market rental properties in order to create affordable housing units, depending on the size of unit. The unit size also affects the income that will be derived from rent, which will provide the funds to operate the building and pay the principal and interest on the financing obtained for the project. It should be noted that Table 5 analyzes capital grants required for households with income at the *top end* of the Low-Income Cut-Offs defined by Statistics Canada (2004), which are upwardly adjusted based on household size. These households can afford to pay rent that falls between average market rent and “near-market rent,” which is considered to be up to 10 percent *less* than average market rent (Calgary Homeless Foundation, 2003: 10). In other words, these LICO households can afford to pay rent that is from one to nine percent lower than average market rent and, therefore, do not qualify for AHPI funding.

Comparing Capital Build Projects and Capital Acquire and Renovate Projects

Table 6 compares the total capital costs and the capital grants required to build new units (as shown in Table 1) and ‘acquire and renovate’ existing units (as shown in Table 5), both of which use low-income cut-off data to determine the level of subsidy required and the amount of rental income that could be generated.

Table 6. Comparison of Capital Costs and Capital Grants for Capital Build Projects versus Acquire and Renovate Projects, Using Low-Income Cut-Off Data

Description of Costs	Capital Costs and Capital Grants for Four Unit Types (\$)			
	850 sq. ft. unit	625 sq. ft. unit	400 sq. ft. unit	225 sq. ft. unit
<i>Total Capital Costs (including GST)</i>				
Capital Build Projects	135,500.00	106,250.00	77,000.00	64,800.00
Acquire and Renovate Projects	102,000.00	75,000.00	48,000.00	27,000.00
Difference (capital build less acquire and renovate)	\$ 33,500.00	\$ 31,250.00	\$ 29,000.00	\$ 37,800.00
Percent Savings (acquire and renovate vs. capital build)	25%	29%	38%	58%
<i>Capital Grants Required Per Unit</i>				
Capital Build Projects	75,837.41	67,016.73	54,539.84	28,367.89
Acquire and Renovate Projects	42,337.41	35,766.73	25,539.84	- 9,432.11
Difference (capital build less acquire and renovate)	\$ 33,500.00	\$ 31,250.00	\$ 29,000.00	n/a
Percent Savings (acquire and renovate vs. capital build)	44%	47%	53%	n/a

As shown in Table 6, the results of this analysis show that it is initially 25 to 58 percent less expensive to acquire and renovate versus building new. The acquire and renovate option requires 44 to 53 percent less grant funding than new builds for 850, 625 and 400 square foot units. Potentially *no funding* would be required for acquiring and renovating 225 square foot units since the analysis determined that the entire funding amount required for this option could be supported by available financing and then, over time, from the income brought in from rent at 30 percent of the low-income renters' income. It is likely that this type of project would still require funds at the onset of each development for down payments on the purchase of buildings or to pay contractors in the early phases of each project but the analysis shows that, in general, the 225 square foot acquire and renovate option is self-supporting.

Limitations of Option 2

While building new units does have a higher upfront cost involved as compared to acquiring and renovating an older building, it can be argued that acquiring and renovating can potentially be more expensive if the renovations required are not fully understood and analyzed before the purchase, leading to a potentially higher costs than building new. Also, maintenance on older buildings tends to have a higher annual cost than for new buildings. While in the first 20 years of a building's existence, the cost may be low to maintain, the remaining years will be more expensive. Programs such as the RRAP program from CMHC could be used over the long-term to help fund the maintenance of older buildings, using the grant dollars available to landlords to keep affordable rental housing at acceptable standards.

Each building must be assessed on a case-by-case basis that considers building age, structure, use, current condition, and required improvements. Further, many affordable housing building initiatives are now considering and implementing more environmentally friendly or efficient housing features. Retrofitting existing older buildings with these long-term cost and energy saving features may be more expensive to implement. The objectives of a particular affordable housing project should be considered in determining whether or not acquiring and renovating would be a feasible option for the planned development.

It should also be noted that this option does not increase the *total* number of rental units available in the local market (unless renovations include reconfiguring the building to have more units available by diminishing the square footage of the original suites). However, it does convert market rental units to non-market rental units, and meets the need to conserve existing stock in a situation of high conversion of rental apartment units to condominiums.

The acquisition and renovation of smaller unit apartments may not be as suitable to the Calgary market as it may be for other communities across Canada. As previously stated, individuals tend to opt for larger (i.e., one-bedroom) units when there is choice in the market due to high vacancies (Stamm, 2005b). In addition, there are few small unit apartments in Calgary's existing stock. In a recent review of almost 4,000 existing apartment dwelling units city-wide by the City of Calgary Land Use Bylaw Review Team, bachelor apartments comprised only 1.8 percent of the total rental apartment universe. The average size of a bachelor unit was 502 square feet, with minimum and maximum reported sizes of 240 and 740 square feet respectively. Of note, Calgary's Land Use Bylaw does not set minimum unit sizes for apartment dwelling units (Kimber, 2005).

8.3 Option 3 – Rent Supplement Programs

The affordability problem in Canada is basically a problem of low income. Some form of rental assistance is thought necessary to address the existing affordability gap – that is, the difference between what households can afford for shelter and market rent in the area. Rental assistance is an income transfer intervention that provides a monetary transfer specifically intended to lower the proportion of a household's income expended on housing (Pomeroy, 2004). The amount of financial subsidy is based on the income level of the household (and what the household could afford to pay for shelter) and on average market rent for the desired unit type. Maximum assistance levels are assigned based on household size to prevent over consumption by participants (Pomeroy, 1998).

Whereas *rent supplements* typically cover the full gap between the household shelter contribution (30 percent of gross household income) and the fair market rental value, *shelter allowance* and *income assistance* programs generally cover only between 75 and 90 percent of this gap (Pomeroy, 1998). The use of income assistance programs is discussed under Option 4.

Rent supplements are "payments made directly to a specific landlord in exchange for housing specific low-income households (usually drawn from social housing waiting lists) in specific rental units that have been inspected by the funding agency." The government and landlord enter into a legal contract, which involves agreement by the landlord to legally provide a specified amount of units to those households identified by a government agency, while the government supervises the arrangement and ensures that property standards are maintained (Hulchanski, 2002: 23). The government (or public agency) agrees to fund the unpaid portion of the actual market rent value for the rental unit on a "rent-gear-to-income" or RGI basis (Pomeroy, 2001).

In Calgary, almost 18 percent of *all* households (58,560 households) have income of less than \$38,000 per year and are spending more than 30 percent of their income on shelter costs. Renters comprise 34,650 of all households with affordability problems. Among renter households, 50 percent of those in need of affordable housing are *single individuals living alone*, followed by *lone-parent families with children*, at 15 percent, *two-person families without children* and *two-parent families with children*, each at 11 percent, *unrelated individuals sharing accommodation*, at 10 percent, *families sharing accommodation with unrelated individuals*, at 3 percent, and *multi-family households*, at 0.5 percent (City of Calgary, 2004b: 4).

Financial Analysis for Option 3

The Option 3 analysis shown in Table 7 uses household income information for before-tax Low-Income Cut-Offs (LICOs) for 2003, as reported by Statistics Canada (2004), and the average market rents in Calgary in 2004 for various apartment types, as reported by CMHC (2004b). As well, using City of Calgary (2004b: 4) data on housing need, this analysis assumes the following:

- All 17,450 single-person renter households would have the maximum LICO income for a one-person household and would require a bachelor unit
- All 3,780 two-person families without children would have the maximum LICO income for a two-person household and would require a one-bedroom unit
- A total of 12,310 households would have the maximum LICO income for a three-person household and would require a two-bedroom unit (households with unrelated individuals sharing accommodation, two-parent families with children, and lone-parent families with children), and
- A total of 1,100 households would have the maximum LICO income for a four-person household and would require a three-bedroom unit (family households with unrelated individuals sharing accommodation and multi-family households).

Table 7 shows the full extent of the rental affordability gap in Calgary for *all* low-income renter households that are overspending on shelter.

Table 7. The Rental Affordability Gap in Calgary for All Low-Income Households

Household Size ¹	Total Number of Households ¹	Unit Type ¹	Annual Low Income ²	Average Annual Affordable Rent ³	Average Annual Rental Costs ⁴	Annual Rental Affordability Gap per Household ⁵	Annual Income Support Required for Shelter ⁶
One-Person	17,450	Bachelor	19,795	5,939	6,180	242	4,214,175
Two-person	3,780	1-bedroom	24,745	7,424	7,860	437	1,649,970
Three-person	12,310	2-bedroom	30,774	9,232	9,684	452	5,561,658
Four-person ⁷	1,100	3-bedroom	37,253	11,176	9,216	-1,960	0
Totals	34,640	n/a	n/a	n/a	n/a	n/a	\$ 11,425,803

Notes:

- 1 Based on assumptions made about household size derived from City of Calgary (2004b: 4) data on housing need.
- 2 Based on before-tax Low-Income Cut-Offs (LICOs) for 2003 from Statistics Canada (2004: 25).
- 3 Calculated as 30 percent of "Annual Low Income."
- 4 Based on the 2004 rental market report for Calgary from CMHC (2004b).
- 5 Calculated as "Average Annual Rental Costs" less "Average Annual Affordable Rent."
- 6 Calculated as "Total Number of Households" multiplied by the "Annual Rental Affordability Gap per Household."
- 7 For a household size with this income, average market rent is affordable. Therefore, the affordability gap and program costs are nil.

According to the analysis in Table 7, over \$11.4 million per year would be required to bridge the affordability gap for all of the low-income renter households in Calgary that are in need of affordable housing because they are overspending on shelter.⁷

It is important to note that the analysis in Table 7 calculates the total amount of subsidy dollars that would be required to cover 100 percent of the 'rental affordability gap' for *all* low-income renter households in Calgary that are in need of affordable housing. It is known, however, that program participation rates are generally lower than 100 percent. For example, participation rates in the income supplement programs operating in BC, Manitoba and Quebec range from 50 to 64 percent of eligible households (figures for Alberta were not available). To err on the side of caution and provide an estimate of the *maximum likely costs* associated with higher participation in a rent supplement program, it is assumed for the analysis shown in Table 8 that the participation rate for a rent supplement program in Calgary would be 75 percent, which is 11 percent greater than known participation rates in other provinces. For consistency, a 75 percent program participation rate is used throughout the remainder of this report.

⁷ Note that Statistics Canada uses "random rounding" to protect confidentiality in the Canada Census data. The result is that table total (34,640 households) is slightly lower than the absolute number of renter households in need of affordable housing in Calgary (34,650 households).

Table 8. The Costs of a Rent Supplement Program for Calgary, Covering the Full Affordability Gap for Participating Households Only

Household Size ¹	Actual Number of Households in Need ¹	Number of Households Participating in Program ²	Unit Type ¹	Average Annual Affordable Rent ³	Average Annual Rental Costs ⁴	Annual Rental Affordability Gap per Household ⁵	Annual Program Funds Needed ⁶
One-Person	17,450	13,088	Bachelor	5,939	6,180	242	3,160,752
Two-person	3,780	2,835	1-bedroom	7,424	7,860	437	1,237,478
Three-person	12,310	9,233	2-bedroom	9,232	9,684	452	4,171,469
Four-person ⁷	1,100	825	3-bedroom	11,176	9,216	-1,960	0
Totals	34,640	25,980	n/a	n/a	n/a	n/a	\$ 8,569,699

Notes:

- 1 Based on assumptions made about household size derived from City of Calgary (2004b: 4) data on housing need.
- 2 Assumes a program participation rate of 75 percent.
- 3 Calculated as 30 percent of "Annual Low Income," as shown in Table 7.
- 4 Based on the 2004 rental market report for Calgary from CMHC (2004b).
- 5 Calculated as "Average Annual Rental Costs" less "Average Annual Affordable Rent."
- 6 Calculated as "Number of Households Participating in Program" multiplied by the "Annual Rental Affordability Gap per Household."
- 7 For a household size with this income, average market rent is affordable. Therefore, the program costs are nil.

As Table 8 shows, assuming a 75 percent program participation rate, the costs of providing a rent supplement in Calgary that would cover the full affordability gap for the maximum number of low-income households likely to participate in such a program would be \$8.6 million. This analysis does not include the administrative costs that would be needed to operate a rent supplement program (since data were not available), which would add to the overall per household cost of providing the program. It can also be assumed that administrative costs would be slightly higher than they would be for income supplement programs, since rent supplement programs require negotiations with landlords, which may consume more time and resources.

As well, since a rent supplement pays 100 percent of the affordability gap, the cost of providing the program increases as average rents increase. When a program funding allotment is fixed, then the number of units that can be funded will *decrease* as average market rents increase. To minimize this risk, negotiated contracts with landlords need to freeze rents for the long-term.

Rent Supplements as Part of Non-Profit Provision

The non-profit vehicle is comprised of community-based organizations that supply, renovate or manage housing under one of various programs created by senior levels of government. This is normally a hybrid program as it is a supply program with an *implicit* rent supplement. Non-profit vehicles share most of the characteristics of rent supplement programs. However, the benefit under non-profit programs in Canada typically involves the full difference between rent geared to income and full break even cost associated with the operation of the non-profit. These programs subsidize 100 percent of the total difference, which is larger than the amount of the affordability gap since non-profit break even costs are generally above market level costs, at least until the property has been held for a long period of time (Pomeroy, 1998).

Table 9 shows the costs of the non-profit provision of an implicit rent supplement program. In order to enable the comparison with other programs, the costs of income supplement programs per capita in a 25-year period of time were also calculated.

Table 9. Non-Profit Provision of a Rent Supplement Program for 25 Years

Household		Annual Costs per Household (\$)			Annual Costs for All Participating Household (\$) ⁵			Net Present Value ⁶	Total Investment Required (\$) ⁷
Size ¹	Number ²	Program ³	Operating ⁴	Total	Program	Operating	Total		
1-Person	13,088	242	311	553	3,160,752	4,070,368	7,231,120	10,554	138,131,387
2-person	2,835	437	622	1,059	1,237,478	1,763,370	3,000,848	20,211	57,298,464
3-person	9,233	452	622	1,074	4,171,469	5,742,926	9,914,395	20,497	189,252,259
4-person ⁸	825	0	0	0	0	0	0	0	0
Totals	25,980	n/a	n/a	n/a	8,569,699	11,576,664	20,146,363	n/a	\$ 384,682,110
Average Costs per Household	n/a	341	460	801	n/a	n/a	n/a	15,292	n/a

Notes:

- 1 Based on assumptions made about household size derived from City of Calgary (2004b: 4) data on housing need.
- 2 Assumes a program participation rate of 75 percent (25,980) less the 825 four-person households that would not qualify for the program, for a total of 25,155 households.
- 3 Based on the annual rental affordability gap per household, as shown in Table 8.
- 4 Based on the Toronto Emergency Homelessness Pilot Project, in which average operating costs for non-profits are set at \$311 per *individual* per year (Gallant, Brown, and Tremblay, 2004: 31), adjusted for the highest likely number of income earners assumed per household.
- 5 Calculated as the number of participating households multiplied by, respectively, the annual costs per household for program costs, operating costs, and total costs.
- 6 Based on Net Present Value (NPV) calculations for the combined program and operating costs for the three participating household types (see Appendix A).
- 7 Based on Net Present Value (NPV) calculations for the three participating household types over 25 years (see Appendix A) multiplied by the number of participating households.
- 8 For a household size with this income, average market rent is affordable. Therefore, the affordability gap and program costs are nil.
- 9 Calculated as the total annual costs for all participating households divided by the 25,155 households assumed to be participating in the program.

As shown in Table 9, with 25,155 Calgary households eligible for a supplement and program participants based on the largest possible number of income earners per household, the *combined* rent supplement program and non-profit operating costs would be \$20.1 million per year. This is significantly higher than the \$8.6 million per year that would be required for the government provision of a rent supplement alone.

The government would need to set aside an average of \$15,292 per household now, and invest it at five percent per annum (simple interest) in order to be able to pay 25 years of income supplements to the number of households that are assumed to be qualified and likely to subscribe to an income supplement program, including the costs of running the program (based on the Toronto Emergency Homelessness Pilot Project costs of \$311 per person and the maximum number of supported persons per household). To fund 75 percent program participation for a full 25 years, the investment required now would be \$384.6 million.

8.4 Option 4 – Income Supplement Programs

As previously noted, while *rent supplements* typically cover the full gap between the household shelter contribution (30 percent of gross household income) and the fair market rental value, *shelter allowance* and *income assistance* programs generally cover only a portion of this gap (Pomeroy, 1998). Although Pomeroy (2000) notes that the percentage of shelter costs covered by programs in Canada ranges from 60 to 90 percent, an analysis of the average shelter component of Alberta's Income Support program shows that this program covers 51 to 72 percent of actual shelter costs, based on housing unit size.⁸

Financial Analysis of Option 4

The financial analysis of an income supplement program is similar to that of a rent supplement program. The main difference is that rent supplements generally pay 100 percent of the affordability gap. Table 10 uses a 75 percent program participation rate to calculate the costs of an income supplement program for Calgary, but instead of using the full 'rental affordability gap' for all participating households, the *actual proportion of shelter costs* paid by Alberta's Income Support program is used to determine the 'percent of gap' that would be covered by an income supplement program. It should be noted that the analysis shown in Table 10 does not include the administrative costs that would be needed to operate the program (since data were not available), which would add to the overall per household cost of providing the program.

⁸ The affordability gap coverage range was calculated by taking the average shelter component of the Income Support program operated by the Government of Alberta (2004b) as compared to average market rent (CMHC, 2004b) for the household and unit sizes used in this analysis.

Also of note is that according to a study on consumer behavior, “low-income households would likely spend a minimal amount of the [income supplement received as a] cash transfer on housing, while allocating a vast majority to non-shelter expenditures” (Fallis, 1993, as cited in Pomeroy, 1998: A-15). That study also shows that providing households with non-profit housing or an equally costly income assistance program may minimize their incentives to work. Therefore, the author concludes that a housing program should provide incentives for beneficiaries to consume the lowest possible level of adequate housing. Paying only a portion of shelter costs is therefore advocated as a consumption disincentive.

Based on all of this information, a “percent of gap formula” ranging from 51 to 72 percent of shelter costs is calculated in Table 10, which is in line with the current proportion of shelter allowance coverage paid to Income Support recipients by the Government of Alberta. This partial coverage of shelter costs could also serve as a disincentive to over-consumption on housing among low-income households.

Table 10. The Costs of an Income Supplement Program for Calgary, Using a ‘Percent of Gap’ Formula for Participating Households

Household Size ¹	Actual Number of Households in Need ¹	Number of Households Participating in Program ²	Unit Type ¹	Annual Rental Affordability Gap per Household ³	Percent of Gap Covered ⁴	Portion of Annual Affordability Gap Covered per Household ⁵	Annual Program Funds Needed ⁶
One-Person	17,450	13,088	Bachelor	242	51	123	1,611,984
Two-person	3,780	2,835	1-bedroom	437	58	253	717,737
Three-person	12,310	9,233	2-bedroom	452	64	289	2,669,740
Four-person ⁷	1,100	825	3-bedroom	-1,960	72	0	0
Totals	34,640	25,980	n/a	n/a	n/a	n/a	\$ 4,999,461

Notes:

- 1 Based on assumptions made about household size derived from City of Calgary (2004*b*: 4) data on housing need.
- 2 Assumes a program participation rate of 75 percent.
- 3 Calculated as “Average Annual Rental Costs” less “Average Annual Affordable Rent” (see Table 7).
- 4 Based on the proportion of average market rent for different unit types (CMHC, 2004*b*) that is covered through the shelter component of the Income Support program operated by the Government of Alberta (2004: *b*).
- 5 Calculated as “Annual Rental Affordability Gap per Household” multiplied by the “Percent of Gap Covered.”
- 6 Calculated as “Number of Households Participating in Program” multiplied by the “Portion of Annual Affordability Gap Covered per Household.”
- 7 For a household size with this income, average market rent is affordable. Therefore, the affordability gap and program costs are nil.

Using the assumptions of a 75 percent program participation rate and a “percent of gap” formula using the same portion of shelter costs currently paid for different unit types through the shelter component of Alberta’s Income Support program, the total funds required for this program would be \$5.0 million per year, which is less than half of the \$11.4 million required to cover the full affordability gap for all low-income Calgary households that are overspending on shelter (see Table 7), and significantly less than the \$8.4 million required to cover the full affordability gap for households likely to participate in the program (see Table 8). Note that for all three of these scenarios, four-person households with income at the upper end of the low-income cut-off level (Statistics Canada, 2004) are able to afford average market rent in Calgary and, therefore, would not be eligible to participate in the program.

Table 11 shows the costs of an income supplement program. In order to enable the comparison with other programs, the costs of income supplement programs per capita in a 25-year period of time were also calculated.

Table 11. Investment Required to Operate an Income Supplement Program for 25 Years

Household		Annual Costs per Household (\$)			Annual Costs for All Participating Household (\$) ⁵			Net Present Value ⁶	Total Investment Required (\$) ⁷
Size ¹	Number ²	Program ³	Operating ⁴	Total	Program	Operating	Total		
1-Person	13,088	123	311	434	1,611,984	4,070,368	5,682,352	8,286	108,449,301
2-person	2,835	253	622	875	717,737	1,763,370	2,481,107	16,703	47,352,121
3-person	9,233	289	622	911	2,669,740	5,742,926	8,412,666	17,390	160,559,160
4-person ⁸	825	0	0	0	0	0	0	0	0
Totals	25,980	n/a	n/a	n/a	4,999,461	11,576,664	16,576,125	n/a	\$ 316,360,583
Average Costs per Household	n/a	199	460	659	n/a	n/a	n/a	12,576	n/a

Notes:

- 1 Based on assumptions made about household size derived from City of Calgary (2004b: 4) data on housing need.
- 2 Assumes a program participation rate of 75 percent (25,980) less the 825 four-person households that would not qualify for the program, for a total of 25,155 households.
- 3 Based on the percent of the annual rental affordability gap that would be covered per household, as shown in Table 10.
- 4 Based on the Toronto Emergency Homelessness Pilot Project, in which average operating costs for non-profits are set at \$311 per *individual* per year (Gallant, Brown, and Tremblay, 2004: 31), adjusted for the highest likely number of income earners assumed per household.
- 5 Calculated as the number of participating households multiplied by, respectively, the annual costs per household for program costs, operating costs, and total costs.
- 6 Based on Net Present Value (NPV) calculations for the combined program and operating costs for the three participating household types (see Appendix A).
- 7 Based on Net Present Value (NPV) calculations for the three participating household types over 25 years (see Appendix A) multiplied by the number of participating households.
- 8 For a household size with this income, average market rent is affordable. Therefore, the affordability gap and program costs are nil.
- 9 Calculated as the total annual costs for all participating households divided by the 25,155 households assumed to be participating in the program.

As shown in Table 11, with 25,155 Calgary households eligible for a supplement and program participants based on the largest possible number of income earners per household, the *combined* income supplement program and non-profit operating costs would be \$16.6 million per year. This is significantly higher than the \$5.0 million per year that would be required for the government provision of an income supplement alone (using a “percent of gap” formula to determine the proportion of shelter costs that would be paid).

The government would need to set aside an average of \$12,576 per household now, and invest it at five percent per annum (simple interest) in order to be able to pay 25 years of income supplements to the number of households that are assumed to be qualified and likely to subscribe to an income supplement program, including the costs of running the program (based on the Toronto Emergency Homelessness Pilot Project costs of \$311 per person and the maximum number of supported persons per household). To fund 75 percent program participation for a full 25 years, the investment required now would be \$316.4 million.

An Application of Option 3 to Address Homelessness

An income supplement program is a very flexible vehicle and could be adapted to meet several program goals. In order to show the flexibility of the tool, some innovative applications are analyzed below.

Shelter facilities are a traditional public response to addressing homelessness. The homeless population is diverse and so are the reasons for individuals’ homelessness. The causes of homelessness range from poverty to mental illness, addictions and family violence. Shelter programs are designed to tackle the diverse problems that cause the homeless condition. Although shelters are a practical solution, their capacity is limited and their costs are high.

Data from 2002 estimates the direct costs of homelessness in Calgary to be \$25 million per year to provide shelter, food, clothing, and counselling, which is based on a shelter capacity of 1,300 beds (Coppus, 2003). The per capita cost of homelessness in 2002 can therefore be calculated to be \$19,231. It should be noted, however, that the *Biennial Count of Homeless Persons* for 2004 surveyed a significantly higher number of facilities than in past years, and reported a capacity of 1,106 emergency beds and 1,558 transitional beds, for a total bed capacity in Calgary of 2,664 beds (City of Calgary, 2004a: 32).

Research conducted by the Interagency Committee for the Absolute Homeless used client data collected in 2000 and 2002 by five operators of homeless shelters in Calgary to track full-year shelter utilization for nine facilities. In 2000, 11,000 *different individuals* were housed in these nine shelters, which increased to 14,181 individuals in 2002, representing a growth rate of 29 percent (City of Calgary, 2004a: 4).

Using data on the cost of operating shelters (Coppus, 2003), the number of homeless persons enumerated in Calgary 2004 and the growth rate of homelessness reported by emergency shelter operators between 2002 and 2004 (City of Calgary, 2004a), Table 12 extrapolates cost projections for operating all shelter facilities in Calgary. It should be noted that this is a static projection based on emergency shelter provision, which does *not* account for the number of homeless persons who may move into non-market or market housing over time. Thus, the estimates shown below are acknowledged to be higher than what might be expected if such data were available.

Table 12. Cost Projections for Operating Emergency Shelters in Calgary

Description	Net Present Value	2005	2006	2007	2008	2009
Adjusted per Capita Cost ¹		19,904	20,600	21,321	22,068	22,840
Number of Homeless ²		2,597	3,350	4,322	5,575	7,192
Total Costs ³	584,993,015	51,690,288	69,014,289	92,144,427	123,026,632	164,259,008
<u>Notes:</u>						
1 Costs are based on the per capita cost of homelessness in 2002, which was \$19,231, with an estimated annual inflation rate of 3.5 percent and a bond yield of 5 percent.						
2 Based on the number of homeless persons enumerated in 2004 and an annual growth rate of 29 percent (City of Calgary, 2004a).						
3 Using a Net Present Value formula (see Appendix A).						

As shown in Table 12, the costs of operating emergency shelters in Calgary through the year 2010 are estimated to be \$219 million. The Emergency Homeless Pilot Project (EHPP) carried out by the City of Toronto represents an alternative program to address the *poverty* problems that lead to homelessness. As reviewed in the previous section of this report, Toronto's EHPP has proved to be successful in housing previously homeless single individuals.

Financial information from the EHPP was extrapolated onto the Calgary situation and, as shown in Table 13, the analysis arrived at interesting conclusions. In this analysis, it is assumed that the administration and counselling costs would be the same as they are in Toronto, based on the EHPP program, and that participants in the program would continue in it for at least five years.

Table 13. Using Income Supplements to Address Homelessness

Description	Costs (\$)
Per capita cost of homelessness, 2005 ¹	19,904
Total Annual Shelter Program Costs per Person	\$ 19,904
Average annual market rent for a bachelor suite ²	6,180
Average annual low income for lone employable individuals ³	8,024
Average annual 30% RGI rent ⁴	2,407
Annual rental affordability gap per person ⁵	3,773
Annual administration costs per person ⁶	311
Annual support services per person ⁶	1,525
Total Annual EHPP Costs per Person ⁷	\$ 13,633
Per Capita Cost Savings Using EHPP Model ⁸	\$ 6,271
<p>Notes:</p> <p>1 Costs for 2005 are based on the per capita cost of homelessness in 2002, which was \$19,231, with an estimated annual inflation rate of 3.5 percent and a bond yield of 5 percent (see Table 11).</p> <p>2 Based on the 2004 rental market report for Calgary from CMHC (2004b).</p> <p>3 Based on Alberta's program Income Supports for lone employable individuals, as reported by the Government of Alberta (2004b; 2004c). See page 30 for an explanation of how the annual income figure of \$8,024 was derived.</p> <p>4 Calculated as 30 percent of "average annual low income for non-family individuals."</p> <p>5 Calculated as "average annual market rent for a bachelor suite" less "average annual 30 percent RGI rent."</p> <p>6 Based on data for the Toronto's Emergency Homeless Pilot Project, which is directed to singles, pays for the first, second, third, and last month's rent in full, and provides assistance and counselling (Gallant, Brown, and Tremblay, 2004).</p> <p>7 Calculated as "average annual low income for non-family individuals" plus "annual rental affordability gap per person" plus "annual administration costs per person" plus "annual support services per person."</p> <p>8 Calculated as "Total Annual Shelter Program Costs per Person" less "Total Annual EHPP Costs per Person."</p>	

As shown in Table 13, the per capita cost of using the EHPP model *and* paying current Income Support rates to employable individuals who are program participants comes to \$13,633 per person per year, versus \$19,904 for housing homeless persons in shelter facilities (which does not include the cost of income support for those individuals). The costs savings realized from using a program like the EHPP would be \$6,271 per person per year.

Table 14 shows the cash flow required to use an EHPP program in Calgary for five years. It first calculates the total cost to attend to 100 percent of the homeless population in Calgary and then calculates the costs of the program for single homeless persons with poverty problems alone (assuming that 15 percent of the total single homeless population only has poverty problems). The analysis in Table 14 assumes that income support would also be paid to each participant at current Government of Alberta (2004b; 2004c) rates for non-family individuals.

Table 14. Applying Toronto's EHPP Program Model to Calgary, with Income Supports

Description	Net Present Value	2005	2006	2007	2008	2009
Adjusted per Capita Cost ¹		13,633	17,586	22,686	29,265	37,752
Number of Homeless ²		2,597	3,350	4,322	5,575	7,192
Total Costs for All Homeless Persons	518,806,662	35,404,382	58,916,431	98,042,834	163,153,079	271,503,039
Number of Single Homeless with Poverty Problems Only ³		390	503	648	836	1,079
Total Costs for Single Homeless Persons Assumed to have Poverty Problems Only	77,820,999	5,310,657	8,837,465	14,706,425	24,472,962	40,725,456
Notes:						
1 Costs are based on an estimated annual inflation rate of 3.5 percent and a bond yield of 5 percent.						
2 Based on the number of homeless persons enumerated in 2004, and an annual growth rate of 29 percent (City of Calgary, 2004a).						
3 Based on the assumption that the number of single homeless persons with only poverty problems is 15 percent of the total homeless population enumerated in 2004, and an annual growth rate of 29 percent (City of Calgary, 2004a).						

As shown in Table 14, the cash flow required for five years of program operation for all homeless persons in Calgary – including the provision of Income Support – would be \$271.5 million. By targeting the program to those homeless persons assumed to have poverty problems only, the cash flow required for five years of program operation would be \$40.7 million. Table 15 makes the same analysis but does not include Income Support payments.

Table 15. Applying Toronto's EHPP Program Model to Calgary, without Income Supports

Description	Net Present Value	2005	2006	2007	2008	2009
Adjusted per Capita Cost ¹		5,609	7,235	9,334	12,040	15,532
Number of Homeless ²		2,597	3,350	4,322	5,575	7,192
Total Costs for All Homeless Persons	213,447,187	14,566,054	24,239,370	40,336,735	67,124,361	111,701,649
Number of Single Homeless with Only Poverty Problems ³		390	503	648	836	1,079
Total Costs for Single Homeless Persons with Only Poverty Problems	32,017,078	2,184,908	3,635,905	6,050,510	10,068,654	16,755,247
Notes:						
1 Costs are based on an estimated annual inflation rate of 3.5 percent and a bond yield of 5 percent.						
2 Based on the number of homeless persons enumerated in 2004, and an annual growth rate of 29 percent (City of Calgary, 2004a).						
3 Based on the assumption that the number of single homeless persons with only poverty problems is 15 percent of the total homeless population enumerated in 2004, and an annual growth rate of 29 percent (City of Calgary, 2004a).						

As shown in Table 15, the cash flow required for five years of program operation for all homeless persons in Calgary – which does *not* include the provision of Income Support – would be \$111.7 million. By targeting the program to those homeless persons assumed to have poverty problems only, the cash flow required would be \$16.8 million.

This analysis shows that income supplement programs can be used in numerous ways, depending on the program design and the objectives of each particular program. Toronto’s experience with the EHPP program illustrates how a program could be designed to address the specific needs of a portion of the current shelter population. It illustrates that a carefully thought out design is key to the success of any program and also shows the flexibility of income supplement vehicles and how they could be used to provide longer-term transitional shelter for extremely low-income homeless individuals. Calgary is a growing metropolis and, like other North American cities, has an increasing problem with homelessness. Income supplements could be suggested as an alternate solution to address some of the poverty problems that can lead to homelessness.

9.0 A Comparison of the Four Options

The four options presented in the previous financial analysis are for : (1) new capital build projects, (2) capital ‘acquire and renovate’ projects, (3) rent supplement programs, and (4) income supplement programs. In this section, two analysis techniques are used to compare how funding dollars could be used for these different options, both of which use budget information for Alberta’s federal-provincial Affordable Housing Partnerships Initiative (AHPI). Table 16 shows AHPI program spending, as reported by the Government of Alberta (2005) in press releases about the program.

Table 16. AHPI Program Spending, 2002-2005

Details of AHPI Funding	Amount
Funding Budgeted from April 2002 to March 2006	\$ 134,240,000
Average Annual AHPI Funding Budgeted in Alberta	\$ 33,560,000
Number of Grants Awarded from Fiscal Years 2002/03 to 2004/05	45
Average Amount of Funding per Grant	\$ 2,190,256
Number of Units Funded from April 2002 to March 2005	2,318
Average Amount of Funding per Unit	\$ 42,520
Maximum AHPI Funding per Unit	\$ 50,000
<u>Source:</u> Calculations derived from the funding awards reported in periodic press releases about the AHPI program, all of which are available on the AHPI website (Government of Alberta, 2005).	

The main information used from Table 16 going forward is the maximum AHPI funding per unit of \$50,000 and the average annual budget of AHPI funds available for distribution in Alberta of \$33.56 million. Using this information in conjunction with the financial information compiled under each of the four options, calculations were performed to determine the following:

- Using the current \$50,000 AHPI maximum funding per door, how many units could be funded under different affordable housing options?
- Using the new maximum of \$75,000 per door permitted in Phase 2 of the Federal-Provincial-Territorial Affordable Housing Program, how many units could be funded under different affordable housing options?
- By investing the average annual AHPI budget of \$33.56 million and using only the annual interest generated from the investment vehicle, how many units could be funded under different affordable housing options?

Under this analysis, the initial year of an affordable housing project's costs were considered, based on the in-depth analysis of each option previously calculated. As shown in Table 17, the current maximum of \$50,000 was divided into the cost for these options to determine how many units would be funded under each option if the \$50,000 maximum were to be applied to new capital builds, capital 'acquire and renovate' projects, rent supplement programs, and income supplement programs. The same analysis was then performed using the new maximum of \$75,000 per door permitted in Phase 2 of the Federal-Provincial-Territorial Affordable Housing Program.

Table 17. AHPI Funding Dollars Applied to Different Options

Funding Option	First Year Funding Required per Unit	Number of Units Funded on \$50,000	Number of Units Funded on \$75,000
<i>Costs for 850 square foot units</i>			
Capital Build Option – Income Support (IS) Data	129,159	0.4	0.6
Capital Build Option – Assured Income (AISH) Data	102,452	0.5	0.7
Capital Build Option – Minimum Wage Data	81,444	0.6	0.9
Capital Build Option – Low-Income Cut-Off (LICO) Data	75,837	0.7	1.0
Capital Acquire & Renovate Option – LICO Data	42,337	1.2	1.8
<i>Costs for 625 square foot units</i>			
Capital Build Option – Income Support (IS) Data	95,486	0.5	0.8
Capital Build Option – Assured Income (AISH) Data	73,202	0.7	1.0
Capital Build Option – Minimum Wage Data	52,194	1.0	1.4
Capital Build Option – Low-Income Cut-Off (LICO) Data	67,017	0.7	1.1
Capital Acquire & Renovate Option – LICO Data	35,767	1.4	2.1
<i>Costs for 400 square foot units</i>			
Capital Build Option – Income Support (IS) Data	115,570	0.4	0.6
Capital Build Option – Assured Income (AISH) Data	89,800	0.6	0.8
Capital Build Option – Minimum Wage Data	72,280	0.7	1.0
Capital Build Option – Low-Income Cut-Off (LICO) Data	54,540	0.9	1.4
Capital Acquire & Renovate Option – LICO Data	25,540	2.0	2.9
<i>Costs for 225 square foot units</i>			
Capital Build Option – Income Support (IS) Data	72,445	0.7	1.0
Capital Build Option – Assured Income (AISH) Data	56,611	0.9	1.3
Capital Build Option – Minimum Wage Data	46,107	1.1	1.6
Capital Build Option – Low-Income Cut-Off (LICO) Data	28,368	1.8	2.6
Capital Acquire & Renovate Option – LICO Data ¹	-9,432	n/a	n/a
<i>Costs for Rent Supplement Options</i>			
Rent Supplement Option – one-year supplement	801	62.4	93.6
Rent Supplement Option – 25-year supplement ²	15,292	3.3	4.9
<i>Costs for Income Supplement Options</i>			
Income Supplement Option – one-year supplement	659	75.9	113.8
Income Supplement Option – 25-year supplement ²	12,576	4.0	6.0
Notes:			
1 The 225 square foot 'acquire and renovate' units can be self-supporting without any initial capital investment (see Table 5 and the text explanation provided on page 34).			
2 In order to operate the program for 25 years, the net present value formula shows that this amount would need to be invested for a 25-year period, with a discount rate of 5 percent and an estimated annual rate of inflation of 3 percent (see Appendix A).			

As shown in Table 17, the funding required to build a new 850 square foot unit (using LICO data) is \$75,837 after available financing is deducted from the total cost of acquiring the land and building the unit. The number of 850 square foot units that could be built with AHPI funding of \$50,000 is 0.7 units, whereas \$75,000 would fund 1.0 unit. Similarly, the funding needed to acquire and renovate an 850 square foot unit (also using LICO data) is \$42,337. AHPI funding of \$50,000 would enable the acquisition and renovation of 1.2 units, whereas \$75,000 would fund 1.8 units.

Table 17 also shows that for capital build projects, as incomes fall, the level of subsidy needed increases, and the number of units that can be built with the same investment decreases. Therefore, the number of 850 square foot units that could be built with AHPI funding of \$50,000 is 0.7 units for LICO earners, 0.6 units for minimum wage workers, 0.5 units for AISH recipients, and 0.4 units for Income Support recipients.

Both the rent and income supplement programs use funding figures based on the net present value calculations performed under those option analyses (see Appendix A for a detailed explanation of Net Present Value). At \$659 per year for a single rent supplement, 75.9 rent supplements could be funded for one year with a \$50,000 investment, whereas \$75,000 would fund 113.8 units for one year. Using net present values, however, shows that a total investment of \$12,576 (with initial first year funding of \$659 per supplement) would fund the entire cost related to one rent supplement for 25 years, taking into account future cash flow amounts for the costs of the program and actual rent supplements given over the entire 25-year time frame.

This analysis shows that in using different options over a 25-year financing period, \$50,000 of funding would provide from 0.4 to 4.0 units of affordable housing. The greatest number of affordable housing units could be gained through the use of income supplements (4.0 units), followed by rent supplements (3.3 units), capital 'acquire and renovate' 400 square foot units (2.0 units), and new capital build 225 square foot units for LICO earners (1.8 units). Similarly, \$75,000 of funding would provide from 0.6 to 6.0 units of affordable housing, with the most number of affordable housing units being gained through income supplements (6.0 units), followed by rent supplements (4.9 units), capital 'acquire and renovate' 400 square foot units (2.9 units), and new capital builds 225 square foot units for LICO earners (2.6 units).

It should also be noted that this analysis shows that no funding may be required for the capital acquisition and renovation of 225 square foot units as the analysis determined that the entire funding amount required for this option could be supported by the income brought in from rent at 30 percent of household income and with financing (see Table 5). However, as previously noted, this type of project would most likely still require up front funds to secure land or pay contractors at the onset of the project, even though the analysis shows that this option can be self-supporting.

The second analysis that was conducted in terms of comparing the options uses the premise that the annual total budgeted AHPI funding amount in Alberta of \$33,560,000 is invested into a vehicle earning five percent (simple) interest per annum. The main assumption is that while the funds are invested, only the interest earned each year is used to provide funding for affordable housing initiatives. Table 18 shows the annual return expected at five percent (simple) interest per annum for the current \$50,000 per door AHPI funding maximum, the proposed \$75,000 maximum, and the present annual AHPI funding amount for Alberta of \$33,560,000.

Table 18. Annual Return on Investing Annual AHPI Funding Dollars

Investment	Annual Return
Investment income of \$50,000 at 5 percent per annum (simple interest)	\$ 2,500
Investment income of \$75,000 at 5 percent per annum (simple interest)	\$ 3,750
Investment income of \$33,560,000 at 5 percent per annum (simple interest)	\$ 1,678,000

Using the total average annual AHPI funding budget of \$33.56 million, the annual return (or annual income from the investment without touching the principal) would be \$1,678,000. Taking the annual interest income of \$1,678,000 and applying this amount to each affordable housing option, Table 19 shows how many units that this investment income could support *each year*, while keeping the principal amount intact. The annual return of \$1,678,000 was divided into the initial year funding per unit figure for each option to determine how many units per year would be funded using the interest income.

Table 19. Annual Invested AHPI Funding Dollars Applied to Different Options

Funding Option	First Year Funding Required per Unit	Number of Units Funded Annually Using Interest Income of \$1,678,000
<i>Costs for 850 square foot units</i>		
Capital Build Option – Income Support (IS) Data	129,159	13
Capital Build Option – Assured Income (AISH) Data	102,452	16
Capital Build Option – Minimum Wage Data	81,444	21
Capital Build Option – Low-Income Cut-Off (LICO) Data	75,837	22
Capital Acquire & Renovate Option – LICO Data	42,337	40
<i>Costs for 625 square foot units</i>		
Capital Build Option – Income Support (IS) Data	95,486	18
Capital Build Option – Assured Income (AISH) Data	73,202	23
Capital Build Option – Minimum Wage Data	52,194	32
Capital Build Option – Low-Income Cut-Off (LICO) Data	67,017	25
Capital Acquire & Renovate Option – LICO Data	35,767	47
<i>Costs for 400 square foot units</i>		
Capital Build Option – Income Support (IS) Data	115,570	15
Capital Build Option – Assured Income (AISH) Data	89,800	19
Capital Build Option – Minimum Wage Data	72,280	23
Capital Build Option – Low-Income Cut-Off (LICO) Data	54,540	31
Capital Acquire & Renovate Option – LICO Data	25,540	66
<i>Costs for 225 square foot units</i>		
Capital Build Option – Income Support (IS) Data	72,445	23
Capital Build Option – Assured Income (AISH) Data	56,611	30
Capital Build Option – Minimum Wage Data	46,107	36
Capital Build Option – Low-Income Cut-Off (LICO) Data	28,368	59
Capital Acquire & Renovate Option – LICO Data ¹	-9,432	n/a
<i>Costs for Rent Supplement Options</i>		
Rent Supplement Option – one-year supplement	801	2,094
Rent Supplement Option – 25-year supplement ²	15,292	110
<i>Costs for Income Supplement Options</i>		
Income Supplement Option – one-year supplement	659	2,547
Income Supplement Option – 25-year supplement ²	12,576	133
Notes:		
1 The 225 square foot 'acquire and renovate' units can be self-supporting without any initial capital investment (see Table 5 and the text explanation provided on page 34).		
2 In order to operate the program for 25 years, the net present value formula shows that this amount would need to be invested for a 25-year period, with a discount rate of 5 percent and an estimated annual rate of inflation of 3 percent (see Appendix A).		

The analysis in Table 19 shows that in using different options over a 25-year financing period, the \$1.678 million of interest income from the investment of \$33.56 million would provide from 13 to 133 affordable housing units per year. The greatest number of affordable housing units could be gained through the use of income supplements (133 units), followed by rent supplements (110 units), capital 'acquire and renovate' 400 square foot units (66 units), and new capital build 225 square foot units for LICO earners (59 units).

As in the previous analysis, no funding may be required for the capital acquisition and renovation of 225 square foot units as the analysis determined that the entire funding amount required for this option could be supported by the income brought in from rent at 30 percent of household income and with financing (see Table 5).

The results of this analysis also show two different costing options for rent and income supplements. One option uses net present values for a 25-year program, which would generate 133 income supplements and 110 rent supplements per year, each of which would be fully funded for the entire 25 years of the program. The second option is based on the annual net operating costs of the program only, not on the net present value. This option would be able to fund 2,547 annual income supplements or 2,094 annual rent supplements, including operating costs. The difference is that the funding for this costing method would have to be provided annually, whereas in the previous costing method, the funds required for the 25-year life of the program would be provided in year one and invested to generate the funds needed over each of the 25 years.

Capital build programs operated by non-profit organizations can maintain affordable housing stock in perpetuity. In contrast, rent supplement programs generally provide affordable housing stock for a period of five to 20 years, which makes them less sustainable in the long term. Similarly, the sustainability of income supplements is also precarious since they are usually based on annual allocations of funding from senior governments, although a larger initial investment can sustain them for up to 25 years, as this analysis has shown.

9.1 Other Options

A number of other options can be employed to help increase the amount of affordable housing that is available in a city. These include permitting the creation of secondary suites and promoting the renovation of existing housing stock (i.e., to create basement suites, for example). Secondary suites can be defined as self-contained dwelling units located on a property or within a single-family home. They are typically bachelor or one-bedroom units that rent at slightly lower costs than the same type of units found in apartment buildings. Since secondary suites generally rent at costs lower than comparable apartment units, this could have the effect of "stretching" the reach of an income supplement program since the affordability gap could be lower for households living in secondary suites than for households renting market rental apartments. More supplements could therefore be provided for the same amount of program funding.

Secondary suites can be characterized as being legal, illegal, or legal non-conforming. It is speculated that a significant number of existing secondary suites in Calgary are non-conforming, meaning that they do not conform to current land use bylaws. Legalizing them through appropriate amendments to the Land Use Bylaw would serve to expand the pool of these lower-cost rental units. One purpose of the Residential Rehabilitation Assistance Program (RRAP) is to provide funding for property owners who renovate rental units for use as low-income housing. Providing that the land use designation is supportive of an increase in residential density, RRAP funds can be used to create secondary suites for low-income housing, which would increase a city's supply of affordable rental units.

Renting secondary suites may be a viable option for single- or two-person households, which account for 66.7 percent of all low-income renter households in Calgary that are in need of affordable housing (City of Calgary, 2004b: 3). As an added benefit, Pomeroy (Pomeroy, 2004) explains that many low-income seniors who own their homes would benefit from the income provided by suiting their homes.

CMHC provides several case study examples of where secondary suites have been used to increase the stock of affordable housing in a community. For example, the 1997 Cochrane (Alberta) affordable housing initiative led to regulatory approval of accessory suites and a change to the land use bylaw to allow accessory suites, thereby increasing densities in all residential zoning categories.⁹

10.0 Overall Recommendations from the Financial Analysis

The financial analysis conducted looked at four main affordable housing options, their costs, and their ability to provide housing units to low-income households requiring affordable housing because they spend more than 30 percent of their income on shelter. The analysis then looked at how each option would benefit from the use of Affordable Housing Partnerships Initiative (AHPI) funding dollars, whether given through straight use of the funds or through investment of the funds, which are currently granted only to new capital building projects relating to affordable housing.

The main results of this analysis show that the use of AHPI funding dollars would definitely benefit the other affordable housing options including capital 'acquire and renovate' projects, income supplement programs, and rent supplement programs. Therefore:

- ***It is recommended that any affordable housing program in a municipality or province use a combination of providing straight funds, as well as investing funds and using the interest income.***

⁹ These and other ACT case studies are available on the CMHC website at www.cmhc-schl.gc.ca/en/search/search_001.cfm.

It is unrealistic to assume that investing the entire annual AHPI funding amount for Alberta of \$33,560,000 and using the annual interest income of \$1,678,000 to fund affordable housing initiatives is appropriate since the need for capital affordable housing projects in the short term is so great. However:

- ***Investing a portion of the annual AHPI funding amount, whether at the provincial or municipal level, is a prudent strategy to build up a pool of funds for use over the long-term for a variety of affordable housing options.***

With the risk of overall funding dollars being decreased, along with the growing number of households requiring affordable housing, long-term solutions such as this must be considered to provide a more sustainable affordable housing program. For example, if one-quarter of the annual AHPI budget (\$8.39 million) were invested at five percent per annum, the annual interest income would be \$419,500. This amount would provide 27 full 25-year rent supplements, 524 annual rent supplements, 33 full 25-year income supplements, or 637 annual income supplements. The remaining 75 percent of the total annual AHPI budget (\$25,170,000) would still be available to fund capital build or capital acquire and renovate projects.

In addition:

- ***Bylaw changes to promote the use of secondary suites are another potential solution that could add to the effectiveness of an affordable housing program in any municipality.***

There are many factors and stakeholders involved in changes such as this one, but the results could be very beneficial to help meet affordable housing needs.

One of the key statements made in the introduction to this financial analysis was that the objectives of any affordable housing plan for a province or municipality must be considered in the overall design of the program. Thus:

- ***Any affordable housing strategy developed for Calgary should consider using a combination of the four main options discussed – capital build projects, capital ‘acquire and renovate’ projects, rent supplement programs, and income supplement programs.***

Applying available AHPI funding to a combination of these four program options in a fashion that complements the objectives of the overall strategy would create a dynamic program that can change as the city’s needs for affordable housing change. This would allow the overall program to take into account factors that influence affordable housing including rental vacancies, interest rates, number of households requiring affordable housing, and a host of other factors. The more the overall program can respond to and work with the changing environment of the city and province, the more beneficial the program would be.

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Appendix A. An Explanation of Net Present Value

Net Present Value (NPV) represents the current value of a series of future cash flows. The NPV is the amount that needs to be invested at currently realistic interest rates at the beginning of the period of payments such that, with accumulated interest (and accounting for inflation or other risk factors), it would be just adequate to meet all payments as they were required over time to support an income supplement program such as this.

For example, the “NPV with monthly operation costs” calculation shows the value in today’s dollars of the funds that would be required to be invested today to fully fund six years (2005-2010) of the income supplement option. The calculation uses assumed increases in the number of beneficiaries using the program over time and then adds each year’s cash requirements. This total cash flow is then “discounted” back to today to account for rising (or lowering) costs, interest rates, and participation in programs.

The NPV concept provides an accurate representation of the value of an investment by incorporating uncertainty and the time value of money for an investment. The Net Present Value of a project is a very useful figure that allows a decision maker to compare different alternatives more effectively.

The calculation of NPV involves three steps. First, the size and timing of the expected future cash flows generated by a project or investment is identified. Second, the discount rate (interest rate applied to the project or investment) is determined. The discount rate would depend on the project under analysis. For the purposes of this study, an estimate for the cost of capital for a government agency is used as the discount rate. Third, cash flows are discounted at the discount rate and the initial investment (if any) is subtracted from the sum of the discounted cash flows. Mathematically:

$$\text{NPV} = \text{Initial Investment} - \sum \text{Cash Flow} / \text{Discount Rate}$$