

Individual Development Accounts In Canada

A Return On Investment Demonstration Model

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TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	i
1. INTRODUCTION.....	1
2. METHODOLOGY	2
I. THE IDA DEMONSTRATION MODEL.....	2
II. INVESTMENTS.....	5
III. RISKS	6
IV. RETURNS	7
3. RESULTS	18
I. OUTPUTS.....	18
II. RETURNS	19
4. FINDINGS AND CONCLUSIONS	22
I. FINDINGS	22
II. CONCLUSIONS.....	25

BIBLIOGRAPHY

APPENDIX A - DETAILED CALCULATIONS

EXECUTIVE SUMMARY

In the course of undertaking policy research into the concept of savings and assets as a poverty alleviation strategy in Canada, SEDI identified the need to develop a return on investment scenario that would demonstrate that real economic and social returns from IDA type initiatives would exceed the costs of investment. Consequently, further research was commissioned by SEDI into the development of a theoretical return on investment model to strengthen and complement the policy research.

For Canadian demonstration purposes, a model of 100,000 IDAs is presented. The model provides matching funds, economic literacy training, administrative and monitoring support, and an evaluation allowance for ten years. Individual IDA contributions are matched by private donors as well as all three levels of government for the first three years. IDA funds can be used to cover the expenses related to educational pursuits, home purchase and business capitalization. Seventy percent of IDA participants are adults and thirty percent are youths.

To control for risks in the model, returns are calculated using the most reliable and current data available. Moreover, the benefits are discounted by a third to account for dead weight, however, discounts are not applied to the cost. In addition, the model incorporates rigorous implementation processes to prevent misuse of funds.

In terms of outputs, the model predicts that the demonstration will result in 48,000 individuals with one or more academic degrees, 36,000 new homeowners and 13,000 capitalized businesses. Moreover, IDAs will help 24,250 individuals move off welfare for two years and 3,250 IDA entrepreneurs to be less dependent on Employment Insurance. Furthermore, the model predicts that 28,883 years of employment will be created.

In terms of returns, the model predicts positive and significant net returns for all IDA investors: individuals, federal government, provincial/municipal governments and society. The net discounted returns per account is \$11,347, of which 35% goes to society, 30% to the participant, 21% to the provincial/municipal governments and 14% to the federal government. The total net returns on all 100,000 IDAs is over \$1.1 billion. Net present values are positive for all investors, ranging from \$605 for the federal government to \$3,077 for society. Internal rates of returns are significant for all investors, ranging from 10% for the federal government to 100% for society.

Findings

- Modest investments can generate large returns.
- All IDA investors enjoy returns that exceed their investments.
- Targeting adults and youths simultaneously can help end the cycle of poverty.
- IDAs promote economic self-sufficiency.
- IDAs stimulate local economies and build stronger communities.
- IDAs create jobs that benefit society.
- IDAs reduce dependency on social assistance.
- IDAs generate significant unquantifiable returns that have immediate and future impact.

Conclusions

- IDAs are a good investment.
- IDAs reduce poverty.
- An IDA demonstration is worth pursuing.
- Further analysis would be necessary to evaluate the full potential of IDA type initiatives.

1. INTRODUCTION

One of the key policy responses to the IDA concept has been to query the long term return on investments that could be anticipated for participants, governments and society as a whole. This is a legitimate question and begs a response. Given the limited resources at SEDI's disposal, it was not possible to develop as thorough and rigorous an analysis as would be warranted if IDAs were about to be launched nationwide. However, there was an opportunity to adapt a similar approach taken by the Corporation for Enterprise Development in the United States. Using their work as a framework for analysis, SEDI has developed a hypothetical Return on Investment model which calculates the economic outputs of providing Individual Development Account (IDA) type opportunities to low income Canadians.

While hypothetical, the model is based on solid data, conservative outcome predictions and a dead weight factor of 33% to ensure a cautious set of projections. It should also be noted that this research model is not intending to promote a demonstration of the magnitude the numbers suggest or necessarily the exact same design components. Rather, the use of 100,000 account holders and other design features allowed us to efficiently replicate the American ROI model and to provide a sense of the potential economic and social dimensions of the strategy.

2. METHODOLOGY

This chapter describes the methodology used to analyze the return on investment for IDAs. First, the framework of the national IDA demonstration upon which this analysis is based is presented. Second, the investments involved in the IDA demonstration are outlined. Third, the mechanisms built into the demonstration to control risks are discussed. Finally, explanations on how the individual returns are calculated are given with the assumptions and predictions used in the analysis.

I. THE IDA DEMONSTRATION MODEL

The IDA demonstration model used in this analysis is similar to a model developed by the Corporation for Enterprise Development (CFED), in Washington, D.C., for an American IDA demonstration.¹ As well, the methodology used to calculate the returns on investment of this demonstration is adapted from the methodology developed by CFED for its own return on investment analysis. Like the American model, this model is based on the asset accumulation strategies advanced by Michael Sherraden. However, rather than a universal system as proposed by Sherraden, this demonstration focuses only on the poor and the working poor, as they are the ones most often excluded from asset accumulation policies and schemes.

Structure of the Demonstration Model

The demonstration model provides matching funds, economic literacy training, administrative and monitoring support and an evaluation allowance for 100,000 IDAs over ten years. IDAs would be established in urban and rural communities across Canada and by both adults and youths. A variety of institutions would participate in the implementation of the demonstration, including community-based organizations, financial institutions and governments at all three levels. Community-based organizations would act as the intermediary between the IDA participants and the matching agencies. Essentially, they would implement the program at the grassroots level; their responsibilities would include signing up account holders, overseeing the contribution and matching process, monitoring the uses of the account funds and keeping records of all transactions. Community-based financial institutions, such as credit unions, may also play a role in monitoring the matching process. All three levels of government would provide financial support in the form of matching contributions. As well, the federal government would provide overall support for project coordination, administration and evaluation.

¹Clones, Daphne et. al., *The Return of the Dream: An Analysis of the Probable Economic Return on a National Investment in Individual Development Accounts*, Washington, D.C.: Corporation for Enterprise Development, 1995.

Target Group

The demonstration IDAs would be restricted to the poor and the working poor and their children. Statistics Canada's Low-Income Cut-Offs would be used to identify individuals living below the poverty line and who would be eligible to open an IDA account. For purposes of the model, it is estimated that 50% of all IDA participants would be on welfare when they open their accounts, and that another 25% of the IDA participants who use their accounts to capitalize businesses would be on Employment Insurance when they start operations.

Eligible Uses

For this analysis, the use of IDA funds is restricted to cover expenses related to educational pursuits, home purchase, and business start-up and development. Other investments aimed to enhance the account holder's future may also be considered in the demonstration, as communities adapt the model to local needs. However, for simplicity, this analysis focuses on these three investments.

In the model of 100,000 IDAs, the allocation of the IDAs is predicted and shown in Table 1. Forty-eight percent of the IDAs will be used for educational purposes, 36% for home purchase, and 16% for business capitalization. By beneficiary, 70% will be used by adults and the remainder will be used by youths.

Table 1: Allocation of Demonstration IDAs

	Education	Homes	Business	Total
Adult IDAs	30,000	30,000	10,000	70,000
Youth IDAs	18,000	6,000	6,000	30,000
Total IDAs	48,000	36,000	16,000	100,000

Contributions and Matches

It is predicted that eligible participants would make regular IDA contributions of \$25 per month, an amount derived from input by participants in the recent SEDI consumer research. This individual contribution would be matched at a one-to-one ratio by private sources, such as foundations, churches and employers, for the first three years of the account's existence. Contributions would also be matched one-to-one by the municipal government as well as the provincial government for the same period of time. Finally, the federal government would match the savings from all sources in the IDA account at a one-to-one ratio (or four dollars for every one dollar contributed by the account holder), for also three years. The structure of the matching process is designed to give the account an initial boost of savings that will enable the account holder to cover tuition expenses, a down payment on a home, or business start-up investments three years after the account is opened.

In the model, contributions to IDAs by account holders would be entirely voluntary. Contributions of up to \$300 per year for ten years, as well as the matches and the interest earned on these funds are tax sheltered for the account holders. Moreover, to preserve the incentive to save, these contributions and matches would not affect the account holders' eligibility for, or retention of, social assistance.

The structure of the IDA contribution and matching process is depicted in Table 2. The analysis assumes regular monthly contributions of \$25 over a ten year period. At this savings rate, individual contributions would accumulate to \$300 per year or \$3,000 at the end of Year 10. The combined contributions and matches would amount to \$7,200 plus interest by the end of Year 3 and to \$9,300 plus interest by the end of Year 10.

Table 2: How IDA Funds Accumulate (excluding interest) (\$)

Investor Group	Year 1	Year 2	Year 3	Years 4-10	Cumulative
Individual	300	300	300	2,100	3,000
Private Source	300	300	300	0	900
Municipal	300	300	300	0	900
Provincial	300	300	300	0	900
Federal	1,200	1,200	1,200	0	3,600
Total	2,400	2,400	2,400	2,100	9,300

Withdrawals and Accountability

Standard withdrawal processes would be strictly enforced to prevent misuse of IDA funds. IDA withdrawals could only be made when authorized by the intermediary organization charged with overseeing the contribution and matching process. Before a withdrawal is authorized, however, the intermediary organization first issues a disbursement form to the appropriate vendor, whether it be an educational institution, a mortgage company or a business supplier, to fill. Then, it verifies the credentials of the vendor or the legitimacy of a business account. If the verification is satisfactory, the account holder and the intermediary organization co-sign the disbursement form. Finally, the financial institution would issue a cheque made payable only to the appropriate vendor or to the account holder's registered business.

II. INVESTMENTS

There are four types of investments in the IDA demonstration. They are:

- Individual and matching contributions
- Start-up and evaluation expenses
- Administrative and coordination expenses
- Economic literacy training

Individual and Matching Contributions

The major investment in the IDA demonstration would be the individual and matching contributions. Based on a demonstration of 100,000 IDA accounts that accumulate over ten years with a savings rate and matching ratios as outlined above, the total investment by all sources would be \$930 million, as shown in Table 3.

Table 3: Investments from Individual and Matching Contributions

Source of Investment	Match Ratio to Individ. Contrib.	Contribution Period (yrs)	Per Account (\$)	100,000 Accounts (\$ millions)
Individuals	(\$25/mth)	10	3,000	300
Private Sources	1:1	3	900	90
Municipal Gov't	1:1	3	900	90
Provincial Gov't	1:1	3	900	90
Federal Gov't	4:1	3	3,600	360
Total	n/a	n/a	9,300	930

Start-up and Evaluation Expenses

The start-up and evaluation expenses combined would add up to \$1 million over ten years. Based on information gathered from similar community-based projects, \$300,000 per year for two years would be required for the start-up phase of the IDA demonstration. Ongoing evaluation in subsequent years would cost, on average, \$50,000 per year. Sufficient resources need to be invested in evaluation as important lessons can be drawn from the demonstration. In this model the start-up and the evaluation costs are assigned to the federal government.

Administrative Expenses

The model estimates that it would require \$400 per year to administer an IDA account while it is still being matched. The administrative expenses are split three ways; \$133 per account per year is assigned to each the federal government, the provincial/municipal governments, and society (i.e. the intermediary organizations, financial institutions, etc.).

Economic Literacy Training

Economic literacy training includes orientation sessions, financial literacy training and career counselling. The model estimates that economic literacy training would cost \$400 per participant per year of training. Again, the costs are split three ways and a third is assigned to each of the federal government, the provincial/municipal governments, and society as a whole.

III. RISKS

The IDA demonstration model and the return-on-investment analysis attempt to control risk in three ways.

First, in the model framework, risks are reduced by restricting allowable uses of IDA funds, establishing and enforcing a rigorous funds withdrawal process, requiring cheques to be made payable to only vendors, using insured financial institutions, and selecting intermediary organizations with excellent programming track records and accounting systems.

Second, in the return-on-investment analysis, risks are controlled by calculating returns using the most accurate and up-to-date information available and from the most reliable sources. As well, as a rule of thumb, conservative estimates are used to predict outcomes or patterns when more than one estimate is available.

Third, also in the analysis, the expected net returns are discounted by one third to account for dead weight--those account holders who would have pursued the same course of action with the same results without IDAs, or those account holders whose IDA investments will fail.

IV. RETURNS

In the demonstration model, IDAs generate returns from four types of investments: (1) savings; (2) education; (3) homes; and (4) business capitalization. Each of these investments and their respective returns are discussed in detail below. At the outset, however, some general comments on how the returns are calculated would help the reader.

In calculating the returns, the model includes only the financial returns that can be directly quantified. While making the analysis more manageable, this decision rule also greatly underestimates the total returns, as many of them are unquantifiable. It is important not to overlook the unquantified returns, as they are significant not only for their immediate benefits, but also for their contribution to building stronger social and economic foundations upon which individuals, families and communities build their futures. The relevant unquantified returns are listed for each of the allowable investments below.

The returns are calculated based on the most reliable and recent data available.² As well, the most conservative numbers are used whenever appropriate. As much as possible, the model is based on survey data derived from actual programs with elements similar to the IDA framework. Where estimates are not available, results from studies conducted in similar contexts are used.

As mentioned above, the financial returns are discounted by a third to account for IDA failures as well as IDA successes not due to the use of IDAs (i.e. some individuals would have found other ways to secure funds to pursue education, buy homes, or start businesses). The returns are discounted by an annual inflation rate of 2.7%, the average rate from 1989 to 1997,³ over the ten-year period.

Similar to the investments, returns are tracked over a ten-year period and from the point of view of the key investor groups: individuals, provincial/municipal governments, federal government, and society. The returns for adults and for youths are calculated separately.

Savings

IDA funds that have not yet been invested in one of the three allowable purposes--education, homeownership, business capitalization--are kept in a savings account. While individual and matching contributions accumulate over the years in the savings account, they also generate interest. The longer the funds are in the account, the more interest is generated. The average adult IDA account is expected to take three years to accumulate enough funds for a significant investment. For youth accounts, this accumulation period would be longer on average. The

² Please see the Bibliography under "Data Sources".

³ "Social Indicators", in *Canadian Social Trends*, Winter 1997, Statistics Canada.

calculations demonstrate how the interest on savings accumulates. Using an interest rate of 4.96%,⁴ an account will accumulate \$1,997 in interest over a ten-year period. The returns on savings include:

Quantified Returns

- Interest

Unquantified Returns

- Greater household financial stability
- Improved welfare of children
- Stronger foundation for future planning and risk taking
- Improved financial literacy
- Increased assets in community financial institutions

Education

Education IDAs will generate returns for the individual, for the government and for society as a whole. First, at the individual level, the account holder will benefit directly from more education by having more earnings. This will lead to stronger families, due to less financial stress and healthier lifestyles. Second, federal and provincial governments will benefit from IDA participants' increased earnings because income tax revenues will rise. In addition, sales tax revenues will increase as participants have more disposable income to purchase goods and services. As well, as earnings increase and individuals get out of poverty, there will be less dependency on social assistance, which results in savings for governments. Finally, society will gain a more skilled workforce and stronger, more productive communities. The returns of education IDAs include:

Quantified Returns

- Increased earnings
- Increased income tax revenues
- Increased sales tax revenues
- Increased social assistance savings

Unquantified Returns

- More stable and healthier families
- More skilled workforce
- Stronger, more productive communities

⁴ This is the average 90-day T-bill rate from 1993 to 1997. *Canadian Economic Observer*, June 1998, Statistics Canada.

Of the 100,000 demonstration IDAs, the model estimates that 30,000 will be used by adults and 18,000 will be used by youths for educational purposes. It is anticipated that youths will be more attracted to education IDAs than home or business IDAs because of the potentially greater lifetime earnings attached to more education.

Educational Attainment

The educational profile of poor Canadians is used to form the predictions of educational attainment of IDA participants. According to the National Council of Welfare, 35.0% of adult Canadians living below the poverty line lack a high school diploma, 18.2% have only a high school diploma, 12.1% have some post-secondary education, 25.2% have a post-secondary diploma, and finally, 9.4% are university graduates.⁵ The model assumes that IDA participants with university degrees will not pursue further education; therefore, university graduates are eliminated from the population of this particular analysis and the percentages of the other categories are adjusted accordingly.

The model predicts that all of the adult education IDA participants without high school degrees will use their accounts to obtain a high school degree. Of those who finish high school, 40% will pursue post-secondary education--75% of them will complete a post-secondary diploma while 25% will complete a university degree. Moreover, of those already with high school degrees, 75% of them will obtain a post-secondary diploma while the remainder will obtain a university degree. Furthermore, all of those with some post-secondary education will complete their post-secondary diploma, and 25% of them will go on to complete a university degree. Finally, the model predicts that all of the IDA participants with a post-secondary diploma will obtain a university degree.

Increased Earnings

To calculate increased earnings due to higher educational attainment, Statistics Canada estimates of average annual earnings for Canadians of various educational levels are used. To be conservative, the average annual earnings of 24-34 year olds to calculate returns are used; in this age range, earnings are lowest for adults under 65. The average annual earnings for 24-34 year olds are shown in Table 4:⁶

⁵ These figures are the averages of two categories of poor Canadians: 1) poor unattached individuals under 65; and 2) poor families with heads under 65. *Poverty Profile 1996*, National Council of Welfare, 1996.

⁶ 1996 Census, Statistics Canada.

Table 4: Average Earnings by Education for 24-34 Year Olds

Education Level	Earnings (\$)
Less than grade 9	16,197
Grades 9-13 without certificate	20,001
Grades 9-13 with certificate	22,163
Less than university	24,238
University degree	31,002

To simplify the analysis, the model uses the average of the earnings of the first two categories (\$16,196+\$20,001=\$18,099) to represent the average annual earnings for someone without a high school diploma. Moreover, the earnings level for *less than university* is used as a proxy for the earnings of individuals with some post-secondary education (e.g. college diploma).

Earnings due to IDAs are calculated by taking the difference between the earnings at the educational level attained using IDA funds and the earnings at the educational level prior to the use of IDA funds.

Cost of Education

Account holders should have enough IDA funds to completely cover the tuition cost to obtain a high school degree and/or a post-secondary diploma. However, for those account holders who want to complete a university degree, they will likely require additional funds. It is expected that these students will need government assistance in the form of student loans or grants. In 1997/98, the tuition for a 4-year undergraduate university arts degree was \$3,117 per year.⁷ The model uses this figure as the cost per year, for four years, for an IDA participant to pursue a university education. The analysis assigns half of the university tuition costs to the IDA program and charges 50% of them to the federal government and the other 50% to the provincial governments.

School and Work

It is expected that IDA participants who pursue their high school degree or their post-secondary diploma will be able to continue to work as much as they did before enrollment. This is a realistic expectation as many adult education programs are offered in the evenings, allowing students to work full-time during the day. For these participants, therefore, their annual earnings will not change. However, for those participants who enroll in a university program, it is predicted that they will have to reduce the number of working hours from full-time to part-time employment. Consequently, they will lose half of their previous annual earnings during the four years of study.

⁷ "Tuition and Living Accommodation Costs Survey", *Education Quarterly Review*, Winter 1997, Statistics Canada.

Increased Tax Revenues

As participants' earnings increase due to higher educational attainment, so will income tax revenues. Sales tax revenues will also increase as IDA participants will have more disposal income to spend. For income taxes, it is assumed that participants are in the \$6,500 to \$30,000 income bracket, and that additional earnings are taxable at the marginal tax rates applicable to this income bracket. Hence, to calculate the income taxes generated from increased earnings, the marginal income tax rate of 9% is used to calculate the provincial income tax and 17% to calculate the federal income tax. For sales taxes, the average provincial sales tax rate of 8%⁸ and the federal GST rate of 7% are used in conjunction with consumer expenditure surveys⁹, to estimate the additional sales taxes generated as IDA participants move from one income level to the next.

Welfare Savings

As earnings increase and IDA participants start to move out of poverty, there will be less need for welfare support. This will result in significant welfare savings for the government. It is estimated that half of the education IDA participants would be on welfare at the start of the IDA program. Of those on welfare, it is predicted that half will move off welfare as their earnings increase. It is also assumed that these individuals will be off welfare for a two-year period after receiving their first degree. In the calculation of welfare savings, the average per recipient welfare income of \$10,775 estimated by The National Council of Welfare is used.¹⁰ Half of the welfare savings are allocated to the federal government, and the other half to the provincial governments.

Homeownership

Homeownership IDAs will generate returns for the new homeowners, for society as a whole, and for governments. First, homeowners will gain economically, as home equity increases. Perhaps more significantly, they will benefit from the unquantified returns associated with a more stable home environment. For example, their families will live in better and safer neighbourhoods. Second, society will gain from employment created from constructing new homes and rehabilitating existing homes. In addition, it will benefit from more home insurance revenues and increased home purchase transaction fees. Finally, governments will have more income tax revenues due to increased wages earned to rehabilitate older homes and construct new homes. As well, a higher level of homeownership will also result in more property taxes for municipal governments. For provincial and federal governments, they will

⁸ This is the average of all provinces except Quebec.

⁹ *Market Research Handbook 1998*, Statistics Canada.

¹⁰ This is the average income of all provinces and of 4 categories of welfare recipients: 1) single employable; 2) disabled person; 3) single parent, one child; 4) couple, two children. *Welfare Incomes 1996*, National Council of Welfare, Winter 1997-98.

save money from less dependency on housing subsidy and other forms of social assistance.

In the demonstration model, it is predicted that 36,000 of the 100,000 IDAs will be used to purchase homes. Of the 36,000 home IDAs, 30,000 will be used by adults and the remainder by youths. It is also assumed that all homes purchased by adults will be purchased in the third year of the program. By Year 3, the average IDA account will accumulate to \$7,563 with interest. For a first mortgage, this amount will not be enough for a down payment of 10% for a “modest” home¹¹. However, it would be feasible for the account holder to obtain a Canada Mortgage and Housing Corporation (CMHC) insurance backed mortgage, usually 1% over going mortgage rates, and only have a 5% deposit. The returns of home IDAs include:

Quantified Returns

- Increased home equity
- Increased wages for home construction and rehabilitation
- Increased homeowner insurance revenues
- Increased benefits to real estate industry from home purchase transaction costs
- Increased property tax revenues
- Increased income taxes from wages
- Increased welfare savings

Unquantified Returns

- More stable family environments
- Better neighbourhoods; less crime
- Stronger civic ties; more caring communities
- Greater financial stability
- Healthier lifestyles

Wage Generated by Home Construction and Rehabilitation

The demonstration predicts that, of the 30,000 adult IDA home buyers, half will purchase existing homes “as is”, one quarter will purchase existing homes that will require substantial rehabilitation, and one quarter will buy newly constructed homes. It is also assumed that IDA participants will buy homes in the lower 20% quintile price range.

¹¹ A “modest” home is defined as a home in the lower 20% price quintile .

To calculate the wage generated from home construction and rehabilitation, the following statistics are used:

- According to the Canadian Home Builders' Association, every new housing start generates 2.8 person years of employment.¹²
- From Statistics Canada earnings data, the average hourly wage for construction work is \$17.82.¹³
- According to the Canada Mortgage and Housing Corporation, the upper limit of 20% price quintile homes in metro areas is \$116,000, and the average price of all homes is \$256,491.¹⁴

From this, it is calculated that the wage generated from the construction of an average priced home would be \$97,297 ($\$17.82/\text{hour} \times 37.5 \text{ hours} \times 52 \text{ weeks} \times 2.8 \text{ years}$). The wage generated from the construction of a lower 20% price quintile home is calculated by dividing the wage generated from the construction of an average priced home by half, since the price of homes in the former category is approximately half of that in the latter category. This calculation comes out to \$48,648. Finally, it is assumed that home rehabilitation work would generate wages in proportion to home construction work. It is estimated that a quarter of all IDA homes purchased will require substantial rehabilitation of approximately \$15,000. Hence, rehabilitation of an IDA home will generate \$6,290 in wages ($\$48,648 / \$116,000 \times \$15,000$).

Other Revenues Generated

Besides wages, there are other revenues associated with home construction and rehabilitation. According to the Canada Mortgage and Housing Corporation, governments and society benefit from the following taxes and fees associated with the purchase of a “modest” (i.e. the 20th percentile priced house) new single-detached house in metropolitan areas (Table 5).¹⁵ These revenues are factored into the IDA analysis.

¹² *The Housing Industry and the Government's Job Creation Strategy*, Canadian Home Builders' Association, 1996.

¹³ *Employment, Earnings and Hours*, March 1998, Statistics Canada.

¹⁴ *Housing Information Monthly*, April 1998, Canada Mortgage and Housing Corporation.

¹⁵ These are average figures for *typical modest* houses from 26 municipalities across Canada. Transaction costs include legal fees, certificates, land transfer taxes, registration charges and fees associated with arranging a mortgage. *Levies, Fees, Charges, Taxes and Transaction Costs on New Housing*, Canada Mortgage and Housing Corporation, 1997.

Table 5: Taxes and Fees on “Modest” New Single-Detached Housing

Benefit	Beneficiary	Amount (\$)
Local charges	Municipalities & local developers	8,432
Provincial sales tax	Provincial governments	4,358
Federal sales tax	Federal government	7,422
Transaction costs	Society/government	6,593

IDA homes will also generate additional property taxes and home insurance dues. According to Statistics Canada’s Family Expenditure Survey, the average household spends \$238 per year on home insurance and \$1,014 per year on property taxes.¹⁶ These estimates are used to calculate the additional property taxes and home insurance dues generated from IDA homes.

Home Equity

Home equity is estimated to increase at 2% per year, and that the appreciation will start in the second year of homeownership.

Welfare Savings

In order to qualify for a home mortgage, a prospective homeowner needs to be working and making sufficient earnings. If the prospective homeowner is a welfare recipient, the process of pursuing homeownership will eventually move this individual off welfare. Therefore, it is estimated that 50% of home IDA participants who receive welfare will eventually move off welfare for two full years. Savings will occur in the third and fourth years of the demonstration, and will be split evenly between the federal and provincial governments.

Business Capitalization

IDA participants who use their funds to start or develop small businesses will generate significant returns for themselves, for government, and for the local community. First of all, these businesses will generate earnings and increase equity for the owners themselves. Second, as businesses grow, so will the need for additional staff. As a result, jobs are created. Third, increased earnings of both owners and employees will result in increased income tax revenues for both the federal and provincial governments. Both governments will also benefit from retail-related businesses that generate sales tax revenues. Finally, besides contributing

¹⁶ *Family Expenditure in Canada*, 1992, Statistics Canada.

to household financial security, these businesses will promote healthy local economies. Returns from business IDAs include:

Quantified Returns

- Increased earnings
- Increased business and personal equities
- More jobs
- Increased income tax revenues
- Increased sales tax revenues
- Increased welfare savings

Unquantified Returns

- Improved local economies
- Less crime
- Stronger civic ties
- Stronger families
- Greater financial responsibility
- Healthier lifestyles

The demonstration model predicts that, of the total 100,000 IDAs, 10,000 accounts will be used by adults and 6,000 will be used by youths to start or develop small businesses. However, half of the youth IDAs will not generate any returns within the ten-year period.

The assumptions and estimates used to calculate the business IDA returns are largely based on the experiences of two programs: 1) the existing Human Resources Development Canada's Self-Employment Assistance (SEA) program¹⁷; and 2) the now defunct Ontario Government's JobsOntario program.¹⁸ The experiences of these two programs provide important insights for the IDA demonstration as these programs have elements similar to the IDA program. For one, they target participants with similar socio-economic backgrounds. The SEA program provides financial support and training to individuals eligible for Employment Insurance and who are interested in starting their own business. The JobsOntario program also provided employment support to individuals who are economically marginalized; seventy-five percent of JobsOntario participants were on welfare.

¹⁷ Graves, Frank and Benoît Gauthier, Ekos Research Associates, *UI: Evaluation of the Self-Employment Assistance Program*, for Human Resources Development Canada, 1994.

¹⁸ Ontario Ministry of Education and Training, *Jobs Ontario Training-Self Employment Program: Final Report*, 1996.

Business Start-Ups

Since the start-up phase is the time when many businesses require the most capital, it is predicted that most IDA participants will wait at least two years to allow their accounts to grow before they begin operations. Consequently, the model estimates that 30% of businesses will start in the second year of the program, 40% in the third year, and 30% in the fourth year.

Business Failures

Matching contributions will reduce the risk of business failure by providing IDA businesses with capital during the most critical phase--the first three years of operations. As a result, it is expected that IDA businesses will have a lower failure rate than typical small businesses that do not enjoy similar financial support. Based on the experiences of the SEA program as well as the JobsOntario program, it is predicted that 20% of businesses will fail in the first year of business and another 20% will fail in the second year of business. From the third year of business onwards, 2.5% of businesses will fail annually.

Increased Earnings

The experience of SEA participants is used to predict the earnings of IDA entrepreneurs. Based on the evaluation of the SEA program, SEA participants received an average of \$142 more per week in earnings from before the program started to about 8 months after the program ended. This amount translates to an increase of \$7,384 per year in earnings. From this, it is predicted that IDA entrepreneurs will earn \$7,384 in the first year of business.

The projections of the economic rate of return on investment for SEA participants are used to predict business/earnings growth of IDA enterprises. One year after the SEA program ended, the projected individual rate of return per dollar invested is \$1.67. For each year thereafter, up to the fifth year, the rate of return increases by approximately 73 cents. Based on these projections, it is predicted that IDA businesses will grow by 40% in the second year, 30% in the third year, 20% in the fourth and fifth years, and 10% in the sixth year and onwards.

Taxes Generated

As earnings increase, income tax revenues also rise. Moreover, sales tax revenue will be generated, specifically from the retail businesses. The SEA program evaluation reports that 15% of SEA businesses were in the retail trade, and that 65% of all SEA businesses had gross sales of under \$5,000 per month, or \$60,000 per year. (The average gross sales of all businesses was \$8,450 per month, but the lower figure is used to be conservative). The JobsOntario study reports that the average gross sales of JobsOntario businesses was \$22,500. Based on these findings, it is estimated that 15% of IDA businesses will be in retail sales and that their average gross sales will be \$45,000 per year (a weighted average of eight SEA/EI recipients to five JobsOntario/welfare recipients). Retail sales will be taxed at 7% for GST and 8% for provincial sales tax.

Job Creation

As businesses grow, IDA participants will need to hire employees. Based on the SEA evaluation, 36.3% of SEA participants employed paid full or part-time employees. These businesses created, on average, 1.5 full-time and 1.8 part-time jobs or 16 months of employment per each business that hired paid employees, or 5.6 months of employment per business. Based on the JobsOntario study, an average of 0.01 job was created for every new business. A weighted average (based on the ratio of eight SEA/EI recipients to five JobsOntario/welfare recipients) of these two figures is used to determine that every IDA business will create 3.4 months of employment. Furthermore, the creation of new employment will only commence in the second year that a business has been established.

The model also assumes that employees of these businesses will be paid, on average, \$2,000 per month. This salary level is consistent with the earnings of the average individual in the 24-34 age group with less than a university degree.

Social Assistance Savings

It is expected that, as earnings increase, IDA participants will become less dependent on social assistance. Indeed, the SEA evaluation reports that SEA participants drew an average of \$2,632 less from the Employment Insurance account three to eighteen months, or an average of eight months, after completing the program. It is estimated that 25% of the IDA participants would be on EI when they begin operations, and that due to their IDA businesses, they will draw each \$2,632 less per year in EI for two years. It is assumed that 50% of IDA holders would be on welfare at the start of their businesses. As a result of their IDA businesses, half of them will be off welfare for two full years. The social assistance savings are split evenly between the federal and provincial governments.

Youth IDA Accounts

With three exceptions, as noted below, the same assumptions and criteria are used to assess the returns on the 30,000 youth IDAs as to analyze the adult IDAs.

Exceptions:

- It is assumed that all of the 18,000 education IDA participants will already have their high school diplomas. Seventy-five percent of them will use their accounts to obtain a post-secondary diploma while the remainder will pursue a university degree.
- Of the 6,000 home IDAs, 1000 will be used annually from Year Five to Year Ten.
- Of the 6,000 business IDAs, half will not generate any returns within the ten-year period. Of the remaining 3,000 business IDAs, 1000 will be used annually from Year Two to Year Four.

3. RESULTS

This chapter summarizes the results of the return on investment analysis of the national IDA demonstration model. The results are presented in two ways: (1) Outputs: the number of degrees, businesses, new homes, etc. that IDAs are projected to produce; and (2) Returns: the financial value of the quantified results that IDA investments are projected to produce.

I. OUTPUTS

The outputs of 100,000 demonstration IDAs are summarized in Table 6. As indicated, the analysis predicts that the IDA demonstration will result in 48,000 individuals with one or more academic diplomas or degrees, 36,000 new homeowners, and 13,000 capitalized businesses. Seventy percent of the IDAs will benefit adults, while the remainder will benefit youths. In addition, IDAs will help 24,250 individuals move off welfare for two years, as their earnings increase. Increased earnings will also enable 3,250 entrepreneurs to be less dependent on Employment Insurance. Furthermore, the model predicts that 28,883 years of employment, a benefit that non-IDA participants will enjoy, will be created from this demonstration. In summary, one hundred thousand poor and working poor Canadians will have more hopeful futures as a result of this IDA demonstration. Many other Canadians not directly linked to the demonstration will also have more secured futures.

Table 6: Outputs of 100,000 demonstration IDAs

	Education IDAs	Home IDAs	Business IDAs
Adults	6,967 finish H.S. 3,484 finish H.S., finish post-secondary 1,161 finish H.S., finish university 4,522 w/ H.S., finish post-secondary 1,507 w/ H.S., finish university 3,007 w/ some post-sec, finish post-sec. 9,351 w/ some post-sec, finish university = 30,000 total diplomas/degrees	7,500 new homes 7,500 rehabilitated homes 15,000 homes bought as is = 30,000 total homes bought	5,640 businesses still in operation in Year 10. = 10,000 total bus. capitalized
Youths	13,500 w/ H.S., finish post-secondary 4,500 w/ H.S., finish university = 18,000 total diplomas/degrees	1,500 new homes 1,500 rehabilitated homes 3,000 homes bought as is = 6,000 total homes bought	1,692 businesses still in operation in Year 10. = 3,000 total bus. capitalized
Total	= 48,000 total diplomas/degrees + 12,000 off welfare for 2 years	= 36,000 total homes bought + 25,200 person yrs of employment from hsg starts + 9,000 off welfare for 2 yrs	= 13,000 total bus. capitalized + 44,200 mths of employment, or 3,683 years of employment. + 3,250 off welfare for 2 yrs + 3,250 draw less EI for 2 yrs

II. RETURNS

This section presents the IDA returns in three related ways:

- Gross investments versus gross returns
- Net discounted returns
- Net present values and internal rates of return

Gross Investments versus Gross Returns

Table 7 summarizes the gross investments and the gross returns. As indicated, the gross returns significantly outweigh the gross investments for each investor group. Individuals gain the most with net returns--gross returns minus gross investments--for all 100,000 IDAs of just under \$2 billion. Society also benefits significantly with net returns of \$758 million. As well, IDAs will generate over \$500 million for each of the federal government and the provincial/municipal governments. For all investor groups combined, the net returns are \$3.8 billion. In terms of distribution of returns by investor group, IDA participants gain 52% of the total net benefits, society gains 20%, the provincial/municipal governments gain 15% and the federal government gains 13%.

When the returns per dollar invested are compared, society is the furthest ahead of all the investor groups at a return of \$5.74. This large gain is primarily due to the thousands of years of employment generated from constructing new homes and rehabilitating existing homes. IDA participants and provincial/municipal governments also do very well at returns of \$3.32 and \$3.46 respectively. The federal government receives a good return at \$2.40.

Table 7: Gross Investments and Returns (Undiscounted) of 100,000 IDAs Over Ten Years

Investor Group	Gross Investments (\$ millions)	Gross Returns (\$ millions)	Net Returns (\$ million)	Returns Per \$1 Invested
Individual	857.2	2,843.3	1,986.1	3.32
Federal	367.7	880.8	513.1	2.40
Provincial/Municipal	228.7	790.8	562.1	3.46
Society	159.7	917.6	757.9	5.74
Total	1,613.3	5,432.5	3,819.2	3.37

* Note: Investments and returns have not been discounted by the inflation and deadwood factors.

Net Discounted Returns

When the net returns are discounted by the inflation factor as well as the deadwood factor, each investor group still enjoys large positive returns, as shown in Table 8. For each IDA account, the total net returns is \$11,347 of which 35% goes to society, 30% to the participant, 21% to the provincial/municipal governments, and 14% to the federal government. The total net returns on all 100,000 IDAs for all investors amounts to over \$1.1 billion.

Table 8: Net Discounted Returns Over Ten Years

Investor Group	Net Returns Per Account (\$)	Net Returns On All Accounts (\$ millions)
Individual	3,389	338.9
Federal Government	1,551	155.1
Provincial & Municipal Gov't	2,404	240.4
Society	4,003	400.3
Total	11,347	1,134.7

* Note: Returns have been discounted by the inflation and deadwood factors. Investments have been discounted by only the inflation factor; deadwood is not applicable to investments.

Net Present Values and Internal Rates of Return

Finally, the net present value (NPV) and the internal rate of return (IRR) of the net returns for each investor group are used to confirm that IDAs are a good investment for IDA participants, for all three levels of governments and for society as a whole. The results are given in Table 9.

Table 9: Net Present Values and Internal Rates of Return Per Account

Investor Group	Net Present Value (\$)	Internal Rate of Return (%)
Individual	1,349	10.62
Federal Government	605	9.86
Provincial & Municipal Gov't	1,495	24.16
Society	3,077	100.01

In general, positive NPVs, which discount future streams of benefits and costs to current financial values, indicate that the return on investment of a project is positive. In the IDA demonstration, the NPVs are positive for each investor group. The NPVs are very high for society at \$3,077 per IDA account. They are significantly high for the provincial/municipal governments as well as individuals at \$1,495 and \$1,349 respectively. For the federal government, the NPV is positive at \$605 per account.

The IRR is the rate of return that an alternative investment must match to make it as economically attractive as IDAs. The projected IRRs range from almost 10% for the federal government to 100% for society. The IRR is significant for all investor groups, but it is particularly high for society. For society, IDAs represent an extremely high yield investment. This is not surprising since IDAs translate to benefits--jobs, higher productivity, safer neighbourhoods, etc.--that society as a whole enjoys

4. FINDINGS AND CONCLUSIONS

The findings of the analysis, based on the patterns of outputs and returns as described in the previous chapter, are highlighted in this chapter. The conclusions of the analysis are presented at the end.

I. FINDINGS

Modest Investments can Generate Large Returns

The model predicts that a gross investment of \$1.6 billion over ten years will generate gross returns of \$5.4 billion, or returns of over threefold. This is possible because IDA funds are invested, rather than consumed. Hence, an investment in IDAs today will generate a stream of benefits for the investors tomorrow. In addition, IDA investments have a multiplier effect which generates economic and social benefits at many points as the original investment circulates throughout the economy. This makes the net returns much larger than the original investment. For example, governments make an investment in an IDA by providing match contributions, which in turn get invested in a business IDA. The business increases the proprietor's earnings, which in turn generate income and sales tax revenues for the governments. As the business expands, the proprietor hires an employee and a job is created. Additional wages to the employee results in more tax revenues. This ripple effect continues to stimulate the economy.

It is noteworthy how modest monthly investments of \$25 by poor individuals can generate large returns that have immediate and long-term effects. This is significant for two reasons: 1) IDAs enable poor people to take control over their economic well-being simply by saving a modest amount each month; and 2) IDAs, specifically the way the IDA matching process is structured, give hope to the poor by making their goals attainable in the near future.

All IDA Investors Enjoy Returns That Exceed Their Investments

All IDA investors, from individuals to society, enjoy returns that exceed their investments. Even when discounted by the deadwood factor, the net returns are positive and large for each group of investors. Society enjoys the largest net returns at \$4,003 per account. Even the federal government, which receives the smallest returns, is ahead at \$1,551 per account. The positive net present values confirm that IDAs are sound investments for each investor group.

It is interesting to note the high returns that society enjoys from IDAs. In fact, the net present value of an IDA for society is greater than that for the individual. Moreover, the internal rate of return of IDAs is very high for society. This is a reminder that some initiatives, such as IDAs, may at first appear to benefit only the individual (because funds go into the individual's account), but in fact have much greater gains for others. These gains are often overlooked because they may be less tangible or less immediate.

Targeting Adults and Youths Simultaneously Can Help End The Cycle of Poverty

IDAs target the poor and the working poor and their children. By targeting two generations--adults and youths--simultaneously, IDAs have the potential to really build assets in poor households, boost opportunities for their members and help end the cycle of poverty. In the model, 70% of the IDAs are used by adults and 30% are used by youths.

IDAs Promote Economic Self-sufficiency

In the model IDA demonstration, the economic well-being of 100,000 Canadians living below the poverty line will be greatly improved. Participants in the demonstration will have the means and opportunities to build assets that build futures. They will earn educational degrees, own homes, and run businesses, all of which in turn will generate earnings and/or equities for them. In this model, the returns are projected for a ten-year horizon. However, in reality, IDA investments will continue to improve the economic security of IDA participants beyond this period.

IDAs will also help shift the mind set of poor Canadians from one of simply surviving each day to another of planning for the future. This positive and forward-looking attitude motivates participants to succeed in their IDA investments and helps to get them out of poverty.

IDAs Stimulate Local Economies and Build Stronger Communities

Investments using IDA funds have a powerful multiplier effect that circulates throughout the economy. The direct outputs of IDAs are new businesses, new and rehabilitated homes, and a more skilled workforce, all of which stimulate the local economy. For example, new businesses require equipment and supplies which need to be purchased. Similarly, new homes require construction materials that also need to be bought. As IDA participants earnings increase, they themselves buy more goods and services. IDA funds are also a new source of capital for community financial institutions such as credit unions. In addition, IDA investments generate employment.

Stronger communities are manifested in more ways than just in economic terms. For example, homeownership, in conjunction with having new and rehabilitated homes, will instill a stronger sense of care for the community. This will make neighbourhoods cleaner and safer. More caring communities will in turn lead to higher levels of volunteerism and community participation. At the core, communities are stronger when social capital increases.

IDAs Create Jobs that Benefit Society

One of the multiplier effects of IDAs is that they create jobs that benefit society. In this demonstration, IDA entrepreneurs generate employment by hiring business assistance. The SEA and JobsOntario programs prove that even microenterprises owned by social assistance recipients have the potential to expand large enough to require extra paid help. In the demonstration of 13,000 capitalized businesses, 3,683 years of employment are created. Home IDAs are even more powerful as a job creator. Jobs are created and wages are earned when IDA homes are rehabilitated or constructed. In the demonstration model, 25,200 years of employment are generated from housing construction alone.

IDAs Reduce Dependency on Social Assistance

As IDA participants earn more income, they will have less need for welfare or Employment Insurance. This reduced dependency on social assistance will mean significant savings for both the federal government and the provincial governments. In the model demonstration, 24,250 participants will move off welfare for two years; this translates to a savings of \$522 million. This model is based on the conservative assumption that IDAs reduce welfare/EI dependency for two years. However, it is conceivable that IDAs could reduce social assistance dependency for more than two years. If so, then the savings for governments would be even greater.

IDAs Generate Significant Unquantifiable Returns that have Immediate and Future Impact

The analysis does not include many of the returns because some are hard to quantify. However, it is important to note that these returns are significant not only because they generate immediate benefits, but, perhaps more importantly, they have the potential to have tremendous future impact. For example, IDAs produce, in the short-term, less financially-stressed households. In the medium-term, less financially-stressed homes will lead to less family violence or alcohol abuse, and more stable homes. In the long-term, safe and stable home environments will help children succeed academically, giving them greater chances to earn enough to start their own adult lives out of poverty.

At the end, IDAs generate hope--the hope that the future will be better than the present. This return is probably the least quantifiable, yet it is arguably the most significant.

II. CONCLUSIONS

IDAs are A Good Investment

The analysis suggests that IDAs are a good investment for all stakeholders: individuals, the federal government, provincial/municipal governments and society as a whole. With net returns that are positive and large across the board, everyone benefits from this investment.

IDAs Reduce Poverty

The analysis also indicates that IDAs are effective in building assets and capacities of the poor. Moreover, IDAs promote economic self-sufficiency which helps the poor move and stay out of poverty. Indeed, the IDA strategy is a powerful anti-poverty mechanism that has lasting economic and social effects.

An IDA Demonstration is Worth Pursuing

Large net returns for all investors and poverty reduction are two compelling reasons for pursuing a national IDA demonstration. This analysis presents an IDA model framework for the purpose of calculating returns. However, it is possible to confirm the potential underscored by this model through a more modest demonstration that will also be flexible enough to allow local experimentation to better meet local needs.

Further Analysis would be Necessary to Evaluate the Full Potential of IDA Type Initiatives

This analysis is an attempt at evaluating the potential of the IDA strategy in Canada. However, further analysis and actual field tests would be necessary to get at its full potential. For example, it would be beneficial to understand how changes in the model's parameters or in program implementation would affect the patterns of outputs and returns. It is crucial, therefore, that close monitoring and rigorous evaluation of the demonstration be conducted.

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