Does More Generous Income Assistance Discourage Work?

Evidence from Canada

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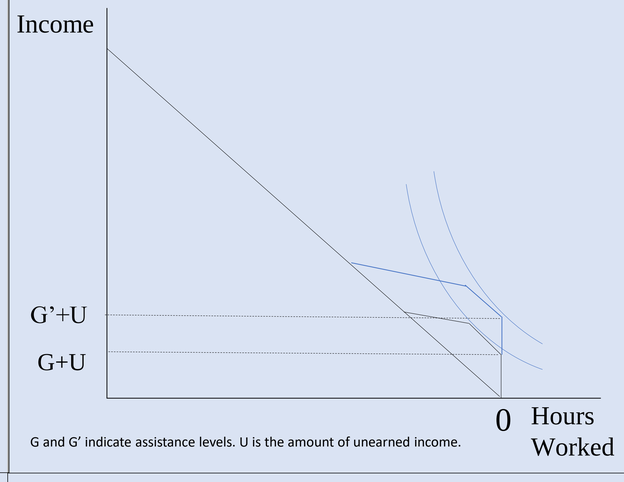
Welfare in Canada

- Income/Social Assistance (IA/SA) programs administered mostly at the provincial level
- A household qualifies for IA/SA if its income is below the amount of assistance it would receive with zero income and the amount of liquid assets it has is below the liquid asset exemption threshold
- In 1996, the Canada Assistance Plan (CAP) was replaced by the Canada Health and Social Transfer (CHST).
- The CHST had less generous than the CAP and had less conditions attached to it. This change led some provinces to pursue welfare reform

Data Sources

- Study period is 1990-2006
- *Welfare Incomes* reports published by the National Council of Welfare: tracks IA/SA income, tax credits, and liquid asset exemption levels for the single employable, single individual with a disability, single parent with child aged 2, and couple with two children, aged 10 and 15 households that have zero earnings
- Detailed dataset on other parts of IA/SA policy, compiled by Tudor Schlanger, Joseph Teh, and me through reading legislation: includes information on earnings exemptions, the presence of work-related sanctions, the oldest age at which a child can cause their parent(s) to be considered unemployable, and other aspects of IA/SA policy
- The Labour Force Survey compiled by Statistics Canada: a monthly rotating panel survey that gathers information on the labor force status and basic demographics of Canadians in all provinces



G and G' indicate assistance levels. U is the amount of unearned income.

Estimation Strategy

- Look at the difference in labor force participation and employment between university graduates and high school dropouts
- Due to data limitation, only study singles, single parents that have one child, and couples that have two children

$$y_{ikptm} = \beta_0 + \beta_1 X_{ikptm} + \beta_2 \delta_p + \beta_3 \tau_t + \beta_4 \lambda_m + \beta_5 g_{kpt} + \beta_6 hsd_{ikptm} + \beta_7 (g_{kpt} \times hsd_{ikptm}) + \varepsilon_{ikptm}$$

i: individual
k: household type
p: province
t: year
m: month

X_{ikptm}: Demographic controls and controls for other aspects of IA/SA policy
g_{kpt}: Amount of IA/SA benefits for the relevant household type if the household were to have zero income
hsd_{ikptm}: high-school dropout dummy
y_{ikptm}: labor force participation dummy and employment dummy

Key Summary Statistics

	Unmarried*	Married^
Dependent Variables		
Proportion Employed	0.73	0.84
	[0.44]	[0.37]
Proportion in Labor Force	0.66	0.77
	[0.47]	[0.42]
Independent Variable		
Assistance Level	6878.47	14768.01
	[2074.37]	[3482.63]
Household Types		
Proportion of Individuals without Children	0.92	N/A
	[0.27]	
Demographic Controls		
Proportion Female	0.41	0.49
	[0.49]	[0.50]
Proportion with Ages Between 25 and 29	0.15	0.07
	[0.36]	[0.26]
Proportion with Ages Between 30 and 34	0.14	0.17
	[0.35]	[0.38]

	Unmarried*	Married^
Demographic Controls (Cont'd)		
Proportion with Ages Between 35 and 39	0.12	0.24
	[0.33]	[0.43]
Proportion with Ages Between 40 and 44	0.12	0.25
	[0.33]	[0.43]
Proportion with Ages Between 45 and 49	0.11	0.17
	[0.31]	[0.37]
Proportion with Ages Between 50 and 54	0.11	0.07
	[0.31]	[0.25]
Proportion with Ages Between 55 and 59	0.11	0.02
	[0.32]	[0.15]
Proportion with Ages Between 60 and 64	0.12	0.01
	[0.33]	[0.09]

Standard deviations in brackets.
*Singles and single parents with one child
^Couples with two children

Labor Force Participation Results for Singles and Single Parents

	(1) Province and Year Fixed Effects	(2) Month Fixed Effects and Province-specific Linear Time Trends	(3) Other IA/SA Policy Parameters	(4) Demographic Controls
Level of Assistance × High School Dropout	-0.00192	-0.00124	0.000319	-0.00630***
	[0.00202]	[0.00197]	[0.00204]	[0.00187]
Level of Assistance (2002 Dollars)	0.00568***	0.00441**	-0.00795**	-0.00479
	[0.00185]	[0.00191]	[0.00329]	[0.00349]
High School Dropout Dummy	-341***	-346***	-356***	-231***
	[16.0]	[15.7]	[16.2]	[13.3]
Observations	901909	901909	852413	852413

Standard errors are in brackets. *p<0.1 **p<0.05 ***p<0.01 Other IA/SA Policy parameters include the earnings disregard threshold, dummies for whether federal child benefits are completely exempt or partially exempt, whether the National Child Benefit is clawed back, whether the individual would be subject to employment-related sanctions and severe penalties for violating regulations if they were on IA/SA, whether the car and house are exempt assets, whether diversion is strong, whether there is a time limit, whether income from unemployment insurance is exempt, as well as the liquid asset exemption threshold and the amount of non-exempt tax credits individuals in a household would receive. Columns 2, 3, and 4 all include province-specific linear time trends. Columns 3 and 4 include a dummy for not having any children. Estimates are for a change in assistance level by $1000.

Employment Results for Singles and Single Parents

	(1) Province and Year Fixed Effects	(2) Month Fixed Effects and Province-specific Linear Time Trends	(3) Other IA/SA Policy Parameters	(4) Demographic Controls
Level of Assistance × High School Dropout	-0.00723***	-0.00660***	-0.00520**	-0.0107***
	[0.00203]	[0.00200]	[0.00205]	[0.00195]
Level of Assistance (2002 Dollars)	0.00396**	0.00242	-0.00823**	-0.00570*
	[0.00180]	[0.00186]	[0.00322]	[0.00332]
High School Dropout Dummy	-348***	-352***	-360***	-256***
	[16.2]	[16.1]	[16.3]	[14.5]
Observations	901909	901909	852413	852413

Standard errors are in brackets. *p<0.1 **p<0.05 ***p<0.01 Other IA/SA Policy parameters include the earnings disregard threshold, dummies for whether federal child benefits are completely exempt or partially exempt, whether the National Child Benefit is clawed back, whether the individual would be subject to employment-related sanctions and severe penalties for violating regulations if they were on IA/SA, whether the car and house are exempt assets, whether diversion is strong, whether there is a time limit, whether income from unemployment insurance is exempt, as well as the liquid asset exemption threshold and the amount of non-exempt tax credits individuals in a household would receive. Columns 2, 3, and 4 all include province-specific linear time trends. Columns 3 and 4 include a dummy for not having any children. Estimates are for a change in assistance level by $1000.

Employment Results for Couples

	(1) Province and Year Fixed Effects	(2) Month Fixed Effects and Province-specific Linear Time Trends	(3) Other IA/SA Policy Parameters	(4) Demographic Controls
Level of Assistance × High School Dropout	0.00296**	0.00301**	0.00282**	0.00520***
	[0.00138]	[0.00137]	[0.00137]	[0.00144]
Level of Assistance (2002 Dollars)	0.00601***	-0.0000647	0.000612	-0.000386
	[0.000933]	[0.00155]	[0.00219]	[0.00208]
High School Dropout Dummy	-241***	-242***	-237***	-259***
	[23.6]	[23.6]	[23.6]	[23.8]
Observations	935687	935687	866601	866601

Standard errors are in brackets. *p<0.1 **p<0.05 ***p<0.01 Other IA/SA Policy parameters include the earnings disregard threshold, dummies for whether federal child benefits are completely exempt or partially exempt, whether the National Child Benefit is clawed back, whether the individual would be subject to employment-related sanctions and severe penalties for violating regulations if they were on IA/SA, whether the car and house are exempt assets, whether diversion is strong, whether there is a time limit, whether income from unemployment insurance is exempt, as well as the liquid asset exemption threshold and the amount of non-exempt tax credits individuals in a household would receive. Columns 2, 3, and 4 all include province-specific linear time trends. Estimates are for a change in assistance level by $1000.

Labor Force Participation Results for Couples

	(1) Province and Year Fixed Effects	(2) Month Fixed Effects and Province-specific Linear Time Trends	(3) Other IA/SA Policy Parameters	(4) Demographic Controls
Level of Assistance × High School Dropout	0.00474***	0.00476***	0.00468***	0.00687***
	[0.00103]	[0.00103]	[0.00104]	[0.00110]
Level of Assistance (2002 Dollars)	0.00466***	-0.000481	-0.00200	-0.00333*
	[0.000789]	[0.00122]	[0.00194]	[0.00187]
High School Dropout Dummy	-219***	-219***	-216***	-238***
	[17.3]	[17.3]	[17.4]	[17.5]
Observations	935687	935687	866601	866601

Standard errors are in brackets. *p<0.1 **p<0.05 ***p<0.01 Other IA/SA Policy parameters include the earnings disregard threshold, dummies for whether federal child benefits are completely exempt or partially exempt, whether the National Child Benefit is clawed back, whether the individual would be subject to employment-related sanctions and severe penalties for violating regulations if they were on IA/SA, whether the car and house are exempt assets, whether diversion is strong, whether there is a time limit, whether income from unemployment insurance is exempt, as well as the liquid asset exemption threshold and the amount of non-exempt tax credits individuals in a household would receive. Columns 2, 3, and 4 all include province-specific linear time trends. Estimates are for a change in assistance level by $1000.

Interpretation of Results

- For singles and single parents with one child, an increase in the level of assistance by one standard deviation is associated with a decrease of 0.0131 in the probability of labor force participation and a decrease of 0.0222 in the probability of employment
- For couples with two children, an increase in the level of assistance by one standard deviation is associated with an increase of 0.0248 in the probability of labor force participation and an increase of 0.0182 in the probability of employment
- One explanation for this result may be that higher IA/SA benefits can allow couples to spend less time on non work-related activities, such as bargain hunting and childcare, and hence encourage labor force participation.
- These findings suggest policy makers may not need to be very concerned with negative employment effects when raising assistance levels

Robustness Checks: Labor Force Participation for Singles and Single Parents

	(5) No Nova Scotia	(6) No Nova Scotia or Manitoba	(7) No Atlantic Provinces
Level of Assistance × High School Dropout	-0.00622***	-0.00574***	-0.00939***
	[0.00190]	[0.00193]	[0.00215]
Level of Assistance (2002 Dollars)	-0.00422	-0.00385	-0.00190
	[0.00355]	[0.00357]	[0.00509]
High School Dropout Dummy	-231***	-236***	-205***
	[13.6]	[13.9]	[15.3]
Observations	830406	782789	732741

Standard errors are in brackets. *p<0.1 **p<0.05 ***p<0.01. Controls are the same as those included in column 4 of the main result table. Estimates are for a change in assistance level by $1000.

Before 2000, Nova Scotia had a two-tier SA program. Under the program, municipalities were in charge of providing and making detailed regulations for SA for single employable individuals and couples, and the province was in charge of administering SA for single parents. Manitoba's IA program was in a similar situation from 1990 to 1992. As I do not observe municipal regulations, these two provinces are dropped a robustness check. The estimates here are quite similar to the corresponding table above.

Robustness Checks: Employment for Singles and Single Parents

	(5) No Nova Scotia	(6) No Nova Scotia or Manitoba	(7) No Atlantic Provinces
Level of Assistance × High School Dropout	-0.0107***	-0.0101***	-0.0151***
	[0.00198]	[0.00203]	[0.00218]
Level of Assistance (2002 Dollars)	-0.00497	-0.00472	-0.00256
	[0.00338]	[0.00343]	[0.00488]
High School Dropout Dummy	-256***	-261***	-219***
	[14.8]	[15.3]	[15.7]
Observations	830406	782789	732741

Standard errors are in brackets. *p<0.1 **p<0.05 ***p<0.01. Controls are the same as those included in column 4 of the main result table. Estimates are for a change in assistance level by $1000.

The coefficients are very similar to the column with demographic controls above. Like the labor force participation results, these estimates become slightly larger in magnitude when Atlantic provinces are dropped.

Robustness Checks: Labor Force Participation for Couples

	(5) No Nova Scotia	(6) No Nova Scotia or Manitoba	(7) No Atlantic Provinces
Level of Assistance × High School Dropout	0.00678***	0.00690***	0.00566***
	[0.00111]	[0.00112]	[0.00112]
Level of Assistance (2002 Dollars)	-0.00332*	-0.00201	-0.00242
	[0.00187]	[0.00216]	[0.00192]
High School Dropout Dummy	-236***	-238***	-213***
	[17.6]	[17.9]	[18.2]
Observations	851829	806834	713448

Standard errors are in brackets. *p<0.1 **p<0.05 ***p<0.01. Controls are the same as those included in column 4 of the main result table. Estimates are for a change in assistance level by $1000.

The estimates here are quite similar to those in column 4 of the corresponding table above. However, the coefficients here become slightly smaller in magnitude when the Atlantic provinces are dropped.

Robustness Checks: Employment for Couples

	(5) No Nova Scotia	(6) No Nova Scotia or Manitoba	(7) No Atlantic Provinces
Level of Assistance × High School Dropout	0.00506***	0.00517***	0.00322**
	[0.00145]	[0.00147]	[0.00144]
Level of Assistance (2002 Dollars)	-0.000331	0.00143	0.00106
	[0.00209]	[0.00235]	[0.00213]
High School Dropout Dummy	-256***	-259***	-219***
	[24.0]	[24.4]	[24.4]
Observations	851829	806834	713448

Standard errors are in brackets. *p<0.1 **p<0.05 ***p<0.01. Controls are the same as those included in column 4 of the main result tables. Estimates are for a change in assistance level by $1000.

The estimates here are again quite similar to those in the corresponding table above. The employment effect drops to 0.0116 with a one-standard-deviation increase in assistance levels when Atlantic provinces are dropped.