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# Get married to get off welfare?

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## Introduction

Can we decrease welfare spending by increasing the rate of marriage in society? This paper intends to inquire into the government welfare consumption patterns of married and unmarried people in Canada. This paper proves that married individuals consume less government welfare even when controlling for factors such as income and education. Welfare spending is defined as cash transfer payments made by the government to citizens. These transfer payments can be either a support or a primary source of income for individuals. This topic is important because it addresses the challenges arising from the changes to societal and household composition, and is particularly relevant for public policy decision makers.

For the first time there are more one person households in Canada than couples with children according to the Canadian Census (2011). This is important because it will have tremendous effects on the political-economy of welfare state policies. More single person households means that the household would be more likely to depend solely on one person's source of income. If that income is jeopardized by unemployment or health problems that would leave a much larger exposure to financial hardship as there is no potential second source of income as would probably exist in a married relationship. It is also probable that the individuals who are married can pool resources and decrease the fixed household costs, such as rent, freeing up more money for savings to protect against future economic risks. The greater savings can serve as an insurance against adverse economic effects, and lessen the potential reliance on public assistance. Therefore I believe that married people would consume less government welfare.

Preliminary work has been done studying the effect of welfare reform on marriage and family formation as well as the result of the welfare reforms of the mid 1990's on labour participation rates of women in the US. While Thomas and Sawhill (2002) demonstrate that marriage would reduce poverty by 3.5 percentage points, they have not shown what the exact fiscal impact on public budgets would be. There is some debate as to whether the changing structure of the family in modern life is exogenous to the welfare state model or whether it is a response to the incentives created by the welfare state itself. Halla, Lackner and Scharler (2013) indicate that the welfare state social spending increases fertility, marriage and divorce rates; concluding that while these policies do encourage family formation they also simultaneously alter the

structure and organization of the family by decoupling marriage and fertility. Hu (2003) argues that much of the change in family composition over the last few decades has been the rise of the female headed single parent household. Hu (2003) also demonstrates that this arrangement is highly correlated with poverty and therefore policymakers have focused on either discouraging women from having children out of wedlock or remain married as a way to reform and bring down the cost of the welfare system. Rector and Johnson (2002) using US data show that a child raised by a never married single mother is nine times more likely to live in poverty than a child born into and raised by a married couple.

The continuing evolution of our societal standards for marriage and family have broad and important repercussions for the future of our social and economic systems. Studying these household trends and understanding their implications on public budgets can provide clues as to how to solve problems before they arise and plan for the future.

## **Literature Review**

The existing literature on marriage consists primarily of work done on the structure of the institution and the effects on the rest of society. There has been considerable academic effort dedicated to the study of economic policies on family formation and dissolution, female labour supply, as well as child poverty. Conclusive work has not been done on the study of the exact relationship between marriage and welfare payments, which is the subject of this research.

Sawhill and Thomas (2002) hypothesize that high marriage rates decrease child poverty. Sawhill and Thomas (2002) find that single parent families are more than four times more likely to be in poverty than two parent families. Sawhill and Thomas (2002) also finds that the correlation between poverty status and family structure is consistent over time by utilizing micro-simulation and shift-share analysis revealing that almost all the increase in poverty among children from 1970 to 1989 is resulting from changes in the American family structure. The research concludes that based on a micro simulation of late 1990's US Census data over 1970's marriage rates, taking into consideration marital sorting by race, income and

education that the child poverty rate falls from 18.3% to 14.9% (Sawhill and Thomas (2002); pg. 591). This means that if the family structure of Americans in 1990 was the same as it was in the 1970's there would be 20% less children in poverty. There are several questions that arise from this research however. The direction and magnitude of the labour force participation is of particular importance, and is not discussed in the research. The conclusions could also be seen as too simplistic. There is more than just household income that impacts child behavioural outcomes and poverty rates. There are of course many households with the same structure and income yet they could rely on radically different amounts of public assistance. Men who do get married also enjoy the marriage wage premium which Sawhill and Thomas (2002) argue results from unobservable differences in married and unmarried men. The fact that the public assistance system provides a source of income for poor mothers, and frees them from relying on potentially unsuitable partners for financial support could be causing a general decrease in the marriage rate itself. However this could reflect the general shortage of quality, marriageable males for those low income women to wed. This would mean that the option of marriage would be providing a negligible income boost due to the fact that the only men left would be those with similarly low incomes insufficient for their own needs let alone a family's. This research lays the foundation for further research on family structure and welfare payments.

Hu (2003) argues that lower benefits and stronger work incentives encourage married aid recipients to stay together. Hu (2003) finds that female headed households suffer a poverty rate of 33% compared to 6% for married households. The empirical method used in this research was a longitudinal panel data case histories with a probit regression over control and treatment groups in the California Work Pays Demonstration Project (Hu (2003); pg. 947). The conclusions drawn from this research should also be understood as not representing a steady state effect, as the CWPDP lasted for only three and a half years. The primary US welfare program that provides aid to families in poverty is the Aid to Families with Dependent Children (AFDC) and was created to provide help for single parent households with benefits being conditioned on marital status. While many would argue that the program provides perverse incentives for poor women to not marry or stay wedded, Hu (2003) also finds that there is considerable disagreement over the extent of that effect. This correlation between a high proportion of female headed households and poverty is critical to an understanding of the budgetary impacts of social assistance payments to children and families in need. It is also possible however that this feminization of poverty reflects a reshuffling of poor people in general across different family types. With the advent of social assistance to poor mothers of

young children we would expect to see a decrease in the incentive for poor women to remain or get married as a means of providing for the children since they can receive income support from the state. Although less marriage among those who would not succeed in general in that arrangement could in fact be seen as beneficial for everyone involved and society in general. There will always be cases where the presence of a parent could be more harmful to the other parent and children such as the case in abusive relationships where proper role modeling for children is not exhibited. Although the net effects of these changes among welfare recipients has not been fully studied it is important to know that Hu (2003) finds that children growing up in single parent families have worse outcomes in terms of teen childbearing, school completion rates and idleness.

Sen and Ariizumi (2013) hypothesize that increased welfare rates or a higher minimum wage will increase fertility and family formation among teens in Canada. In Canada social assistance is needs based without direct consideration of marital status, payments are calculated based on the shortfall between what is the estimated basic cost of living and the current income of the individual or family. Sen and Ariizumi (2013) argue the choices available to low income teens in Canada might be to stay single and receive less generous payments, or form a family with children so as to increase their basic needs allowance, resulting in a larger welfare payment. This might be an attractive option for low income, less educated teens that face a poor employment market with limited income earning ability. This could mean that the Canadian welfare policy would cause welfare benefits to be positively correlated with marriage rates. Whereas most of the literature concludes that low marriage rates coincide with single parent households which contain a large amount of female headed households that is correlated with poverty and therefore more dependent on welfare benefits. The prospective of a healthy economy and a well-functioning job market could also be an important variable in determining family formation, welfare payments, and marriage rates. Sen and Ariizumi (2013) find that although welfare income had no significant impact on marriage rates they did find that a higher minimum wage does. OLS regressions on the 1996 and 2001 survey of Census and Family Income data set concluded that a 10% increase is correlated with a 3-5% increase in teen births and a 1% increase in the minimum wage with a 1.3-1.6 % increase in teen marriage rates. A higher minimum wage, although a mandated policy outcome by the government, could be reflective of higher labour productivity in general and a more robust economy. This would mean that economic strength is related to marriage rates,

birth rates and a decline in welfare payments. However no matter how healthy the economy is, there will still be low skilled adults who simply cannot earn enough to support a family.

Schramm (2006) finds that roughly 50% of caseloads in TANF, the successor program to AFDC, had been associated with divorce and various forms of marital breakdown. This research employs data from the National Center for Health Statistics, 2002. Shramm (2006) finds that 35-37% of TANF recipients are in a family with one parent having had deserted them. This raises an important paradox, in which the state's attempt to support poor children and households might increase the risk of losing a parent through divorce or delayed marriage. Shramm (2006) also finds that divorced or legally separated persons accounted for 15% of the TANF recipients. This study also reflects prior research which shows that 75-80% of the people on Utah's welfare rolls were there due to circumstances surrounding divorce and family breakdown. This research points in the same direction of this paper in studying the direct relationship between public assistance and family status.

With the budget for the TANF program alone amounting to 17.7 Billion (Administration for Children and Families Justification of Estimates for Appropriations Committees (2012); pg. 308) in the US as well as a myriad of other welfare programs at the federal, state and local level it is critical to understand the data and the reasons for the decrease in the marriage rate and the higher total welfare spending. Research on this topic employing Canadian data has been relatively sparse and therefore in need of further additions. While the literature up to now has attempted to assess the impact that welfare policies have on family formation and dissolution, this paper's contribution to the field would be in studying the relationship between the consumption of government welfare by married as opposed to unmarried individuals.

## Data

The purpose of this paper is to demonstrate, using Canadian data, the relationship between marriage and government welfare spending. The National Household Survey for 2011 serves as the data set for the empirical work. The NHS 2011 is a comprehensive microdata file amounting to a sample size of 2.7% of the Canadian population. With over 887,000 unique responses and a questionnaire measuring 133 variables, this set provides a wealth of information for this study. Unfortunately the geographic identifiers have been limited to only provinces and certain metropolitan areas, making it difficult to gather region-specific snapshots. The target population of the NHS 2011 is all persons living in private dwellings in Canada, on Native reserves or settlements, permanent residents, refugee claimants, and all holders of work or study permits as well as their families in Canada. The survey excludes anyone living in institutional collective dwellings such as nursing homes, prisons or hospitals. I have also excluded for the purposes of this study all those over 65 years of age, due to the distortionary effect that public pensions have on the measurement of welfare and public assistance levels. This data will allow me to directly test the relationships between marriage, welfare, unemployment, and a host of other related variables. This data will help test and prove the hypothesis that marriage reduces government welfare spending.

The explanatory variable is marital status. This independent variable is labelled **MARRIED** and is shown as a dummy variable with 1 representing a married person. The **WELFARE** variable is the dependant variable and includes all direct transfer payments to individuals. The NHS 2011 codebook includes income from the following sources as **WELFARE**:

Social assistance payments received by persons in need, such as mothers with dependent children, persons temporarily or permanently unable to work, elderly individuals, the blind and the disabled. Included are provincial income supplement payments to seniors and provincial payments to help offset accommodation costs . Also included are other transfer payments such as payments received from training programs sponsored by the federal and provincial governments, veterans' pensions, war veterans' allowance, pensions to widows and dependants of veterans, and workers' compensation. Additionally, working income tax benefits, refundable provincial tax credits and refunds of the Goods and Services Tax (GST) or the harmonized sales tax (HST) received in 2010 are included. (73)

Also included are multiple control variables that help refine and clarify the relationship between marriage and welfare. The **ABORIGINAL** control variable reflects the people who self-identify as aboriginal

represented with a dummy variable 1. It is reasonable that due to the higher poverty rate among Canada's aboriginal population as evidenced by work done by Collin and Jensen (2009) that this will be positively correlated with welfare spending. Any respondent to the NHS who reported only a high school education or less was assigned a POSTSECONDARY dummy variable of 0, with any post-secondary education being recorded as a 1. As education levels are directly correlated with income and employment prospects, it would be logical to assume that the less educated respondents would be receiving greater public assistance. The RELIGION variable is calculated by grouping everyone who self describes as religious into one category and all those who responded with no-religious affiliation into another indicated by dummy variable values of 1 and 0 respectively. Gruber (2005) argues that religious people are more likely to have broader faith based support networks and therefore might potentially be less likely to rely on social assistance. Anyone who reported themselves as visible minority was assigned a MINORITY dummy variable of 1, with all others given 0. Carneiro, Heckman and Masterov (2005) argue that visible minorities might face discrimination in the labour market and therefore have limited income earning abilities. This probably translates into higher reliance on welfare. The EMPLOYED dummy variable is a 1 if the person was working in the reference week. It is reasonable to assume that those who are employed would be less reliant on state assistance. The KIDS variable assigns a 1 to all persons who have a child living with them. This is important to include as having children increases the cost of living and might pose potential financial stress on a household budget, and therefore enable the parent to receive income support. The IMMIGRANT variable assigns a 1 to respondents who are immigrants. In addition the INCOME variable measures total market income, including all salaries, wages, and bonuses. This measure is effectively all income minus government transfer payments.

<u>Variable</u>	<u>Observations</u>	<u>Mean</u>	<u>Standard Deviation</u>	<u>Min</u>	<u>Max</u>
WELFARE	611,964	921	2869	0	57,300
MARRIED	612,570	.45	.50	0	1
POSTSECONDARY	609,313	0.58	.49	0	1
KIDS	505,153	0.73	0.44	0	1
IMMIGRANT	604,325	0.23	0.42	0	1
EMPLOYED	612,570	0.71	0.45	0	1
RELIGION	608,282	0.75	0.44	0	1
MINORITY	609,692	0.2	0.40	0	1
ABORIGINAL	612,570	0.04	.19	0	1
INCOME	611964	38,646	60213	-50,000	1,153,122



## Results

WELFARE	Reg 1	Reg 2	Reg 3	Reg 4	Reg 5	Reg 6	Reg 7	Reg 8	Reg 9
Intercept	1148*** (4.94)	1342*** (6.2)	954*** (9.84)	940*** (9.86)	1389*** (10.84)	1356*** (12.61)	1361*** (12.66)	1319*** (12.76)	1330*** (12.74)
MARRIED	-502*** (7.34)	-436*** (7.44)	-242*** (7.89)	-300*** (8.06)	-227*** (8.02)	-227*** (8.07)	-229*** (8.10)	-223*** (8.10)	-164*** (8.18)
POSTSECONDARY		-390*** (7.45)	-272*** (7.83)	-282*** (7.84)	-116*** (7.96)	-116*** (7.99)	-117*** (8.00)	-106*** (8.01)	-47*** (8.1)
KIDS			167*** (8.71)	130*** (8.79)	146*** (8.71)	143*** (8.74)	149*** (8.81)	143*** (8.80)	142*** (8.78)
IMMIGRANT				309*** (9.10)	256*** (9.03)	256*** (9.07)	314*** (11.97)	327*** (11.98)	318*** (11.95)
EMPLOYED					-821*** (8.56)	-819*** (8.59)	-824*** (8.62)	-812*** (8.63)	-728*** (8.79)
RELIGION						43*** (8.93)	43*** (8.96)	49*** (8.95)	40*** (8.94)
MINORITY							-95*** (12.61)	-80*** (12.62)	-112*** (12.61)
ABORIGINAL								501*** (20.21)	480*** (20.17)
INCOME									-0.003*** (0.00006)
R <sup>2</sup>	0.0076	0.012	0.0068	0.0092	0.0271	0.0271	0.0272	0.0284	0.0327
R <sup>2</sup> Adjusted	0.0076	0.012	0.0068	0.0092	0.0271	0.0271	0.0272	0.0284	0.0327
Number of Observations	611,964	608,751	501,896	497,631	497,631	494,344	492,368	492,368	492,368

\*\*\*Significance at the 1% level

\*\*Significance at the 5% level

\*Significance at the 10% level

(Standard error in brackets)

$$\text{WELFARE} = \beta_0 - \beta_1 \text{MARRIED}_i - \beta_2 \text{POSTSECONDARY}_i + \beta_3 \text{KIDS}_i + \beta_4 \text{IMMIGRANT}_i - \beta_5 \text{EMPLOYED}_i - \beta_6 \text{RELIGION}_i + \beta_7 \text{MINORITY}_i + \beta_8 \text{ABORIGINAL}_i - \beta_9 \text{INCOME}_i + \varepsilon_i$$

Regression estimation:

$$\hat{WELFARE} = 1330 - 164_{MARRIED} - 47_{POSTSECONDARY} + 142_{KIDS} + 318_{IMMIGRANT} - 728_{EMPLOYED} + 40_{RELIGION} - 112_{MINORITY} + 480_{ABORIGINAL} - 0.003_{INCOME}$$

The MARRIED variable is negatively correlated with WELFARE. Relative to non-married people, married people receive \$164 less government welfare. The variables POSTSECONDARY, EMPLOYED and MINORITY are also negatively correlated to WELFARE as well. Individuals who had completed any post-secondary education receive \$47 less in welfare. By far employment was the largest factor in determining welfare payments. EMPLOYED is strongly negatively correlated with WELFARE as we would expect due to the fact that employment should provide enough earnings to disqualify someone from most of public assistance. Employed persons receive almost \$728 less than their unemployed counterparts. It is interesting that the MINORITY variable is negatively correlated with WELFARE, and it is unexpected. Minorities received \$112 less welfare per year than those who did not describe themselves as visible minorities. The IMMIGRANT variable shows a positive relationship, potentially reflecting the fact that immigrants are newer to the country and have not yet fully developed the social and professional networks to integrate in the labour market. Immigrants receive \$318 more in government income than their non-immigrant counterparts. The difference between MINORITY and IMMIGRANT coefficients is interesting to note. This probably suggests that children of immigrants who are minorities would be less reliant on government welfare. This may be the case due to the surprisingly successful way that Canadian society integrates immigrants into the social and economic mainstream. This is reflected in the higher earnings and educational attainment that immigrant children enjoy compared to the Canadian average (StatsCan, October 2007). There is also a slight positive correlation between RELIGION and WELFARE, with religious people receiving \$40 more than their non-religious counterparts. This is surprising given that prior research such as Gruber (2005) implicated that religiosity would serve as a buffer against the welfare system and provide private forms of financial and social support. Persons with kids living in their household also receive \$142 more in government benefits. This is likely attributable to the child tax benefit. Aboriginal Canadians received \$480

more in government income than non-aboriginal Canadians. The INCOME variable coefficient is interpreted as meaning for every \$1 increase in income the amount of welfare received decreases by 0.3 cents. The  $R^2$  and adjusted  $R^2$  values are 0.0327. The explanatory variables predicts 3.27% of the variation in the dependent variable. The results from the Breusch-Pagan/ Cook-Weisberg test for heteroskedasticity conclude that the null hypothesis for constant variance is rejected. This model also suffers from a multicollinearity problem as the explanatory and control variables are correlated with each other. All of the results are significant.

These results are largely what would be expected and support the hypothesis of this paper, as well as provide a better understanding of who receives welfare in Canadian society. These results affirm the hypothesis that married individuals are less reliant on, and consume less government welfare. There are a variety of reasons for this. If the married couple has both partners working, their incomes would be higher and if the partners work in uncorrelated industries it is less likely for them to encounter layoffs, pay cuts or termination at the same time. This diversification of income sources smoothens out the income function of married people and allows them to be less susceptible to downward income shocks. Even if both partners are not working there are other gains from trade and household production theories which can account for the less welfare consumption of married people. Married couples can afford to have one member specialize in household management or education, while the other engages in income earning behavior. This specialization would afford a higher consumption bundle and potential quality of life. It may also enable increased income, as it frees up time for the other spouse to get educated and earn more in the future. In addition to this, married couples who live together would be able to save on certain fixed costs of living such as rent and utilities. This also enables them to save more and have a larger pool of private savings to rely on, in the instances of job loss or other income disruption. This larger pool of private savings will help cushion the blow from the decreased income and enable married individuals to not enter the welfare rolls. These results may be improved by adding more variables as well as including cross variables. There also may be omitted variable bias in these results. It is very plausible that other unobservable traits exist that set married and unmarried men and women apart that also explain the difference in welfare consumption.

## **CONCLUSION**

This paper set out to find if married people consume less welfare. The hypothesis is that there would be several economies of scale in a marriage that would allow the individuals in that arrangement to be more self-sufficient and therefore less likely to depend on state financed social assistance. Married couples benefit from a cost sharing arrangement through economies of scale in terms of housing, food as well as transportation expenditure. It is fair to assume that these cost savings would enable married couples to save more and therefore have access to private savings in times of economic distress, lessening their reliance on state relief.

The current literature on this topic revolves around marriage and the effects of different family structures on income and education outcomes for children. In addition there has been much work done by Sawhill and Thomas (2001) who find that single parent families are more than four times more likely to be in poverty than two parent families, which implies that welfare expenditure on these families would be higher. This research attempts to provide a general estimate on the actual dollar amounts that different variables such as marriage, religion, and educational status have on welfare payments. This research further develops the field of public policy economics by providing a numerical figure for the government savings generated by more marriage. One of the implications of this research is for policy makers to design programs or subsidies to keep people married. They would have a budget constraint for these policies of up to \$164 per year. Any pro-marriage policies that significantly increase the rate of marriage in society through subsidies, or tax breaks costing less than \$164 a year per person would prove to be a net saving for the government treasury. The data set employed in this study was for a single year. In the future, this field would benefit from the study of the lifetime consumption of welfare benefits for individuals. Of course it also might be the case that those in need of social spending are much less likely to marry as a result of disability or health, factors that are not included in this study, meaning that simply having those people marry is unlikely to yield the public budget savings outlined above. What this research does specifically is to provide a blueprint for policy makers in estimating the benefits of pro-marriage policies in terms of reductions in welfare payments.

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