Do Mennonites Earn Less than Other Canadians? The Role of Religion in the Determination of Income

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Abstract

Anecdotal evidence tends to support the popular perception that Mennonites in Canada enjoy a relatively high standard of living. Several reasons are suggested for this, including a strong work ethic, self-reliance, entrepreneurship and a supportive social network. Empirical studies, however, report that the average income of Mennonites lags behind that of other Canadians. This paper examines data from the 1991 Census of Canada in an effort to resolve this apparent inconsistency. When average income is adjusted for place of residence and gender, much of the disparity in earnings disappears but the relatively low income of Mennonite women, particularly those living in rural areas, persists. Differences in income, both within the Mennonite community and between Mennonites and other Canadians are examined in terms of individual "human capital" and personal attributes, labour market activity and social factors.

Introduction

When income is examined according to religious affiliation, a consistent finding is that Mennonites tend to receive less than other Canadians. In 1990, for instance, the average income of Mennonites ($23,406) was 9 per cent less than the Canadian average ($25,764).[1] Empirical results of this sort have led to some strong and, at times, surprising conclusions. Hecht, for instance, observes that Ontario's Mennonites in 1980 were "less represented in the higher income categories and more represented in the lower income categories" and draws the interpretation that: "They have obviously not embraced the Protestant work ethic."[2]

Such empirical findings stand in sharp contrast to anecdotal and other evidence that Canadian Mennonites tend to enjoy a relatively high standard of living. Based on a survey of members of the Mennonite Brethren, for instance, one author concluded in 1981 that "in the aggregate we are a prosperous, apparently above average,

economic group."[3] Others focus on the striking success of numerous Mennonite businesses as an indication of an affluent community.[4] These perceptions are reinforced by popularly held views of Mennonites as hard working and self-reliant, yet able to draw upon a supportive social network.

How then does one reconcile these conflicting portraits, one inferred from anecdotal evidence of a relatively prosperous community, and the other based on the empirical result that Mennonites have a relatively low average income? It may be simply a matter that commonly-held views of Mennonites are incorrect; for instance, focussing on the high proportion of successful Mennonite entrepreneurs may obscure the relatively low economic status of many other individuals. The second possibility, however, is that the empirical evidence has not been properly interpreted.[5] A particular shortcoming of previous empirical analysis is that it does not adequately consider the difference between "unconditional" data (that is, average income *unadjusted* by factors such as gender and place of residence) and the "conditional" results (such as average income *adjusted* for gender and place of residence). Inferences drawn from the average income may, therefore, be erroneously applied to particular members of the religious community. Moreover, there has been no attempt to explain how such factors as an individual's "human capital" (albeit the term is rightly repugnant to some), patterns of work, personal characteristics and "ethno-religious" or "social capital" may have a bearing on the economic performance of Mennonites relative to the general population.

In this paper, we revisit the issue of the income of Mennonites by examining the 1991 Census of Canada data. This publicly-available information provides detailed information on a 3 per cent sample of the population and this large sample makes it possible to investigate in greater detail the pattern of incomes within the Mennonite community and between Mennonites and other Canadians. (While it would be preferable to examine a more recent time period, publicly-available data from the 2001 Census is not provided in sufficient detail to permit such an examination.[6]) We find that after adjusting for the high proportion of Mennonites living in rural areas (where incomes tend to be lower), the average incomes of Mennonite men differs little from that of other Canadian men, while the incomes of Mennonite women tend to lag behind those for other Canadian women. We then suggest that differences in earnings between Mennonites and the general population can be explained by human capital factors such as educational attainment, attitudes to work, personal characteristics which influence the gender division of labour, and community characteristics.

The rest of this paper is organized as follows. Section 1 considers

four frequently-cited aspects of Mennonite "ethno-religious" values-a strong work ethic, self-reliance and entrepreneurship, family cohesiveness, and mutual aid-that may play a role in defining their degree of economic integration and, accordingly, may influence their level of income. Section 2 then outlines the average size and pattern of income among Mennonites by gender and place of residence. Section 3 summarizes the education, labour market behaviour and personal characteristics of the individuals and estimates their importance in determining the income of Mennonites relative to the other Canadians. Finally, Section 4 seeks to reconcile popular perceptions of Mennonite economic activity with the empirical findings.

1. Mennonites and the Economy

Economists have examined religion as one aspect of "social capital," or of an individual's family background and cultural environment that may influence earnings. Since families "invest" their children's futures, those with more abundant economic resources are better able to contribute to a child's acquisition of skills and future livelihood. Ethnicity or religious affiliation may be important in this respect if members of the group have shared values, such that they place greater emphasis on education, the virtue of work, or honesty and other personal characteristics that are rewarded in the labour market. Alternatively, the existence of informal employment channels and other social networks may also enhance an individual's economic attainment.[7] The influence of these social characteristics is stronger to the degree that the group is highly-segregated (geographically and otherwise) from the rest of the population.[8]

This literature is directly relevant to the experience of North American Mennonites given the relationship, and potential conflict, between religious values that emphasis communal goals and participation in a modern capitalist economy. To many observers, increased economic integration has brought a significant departure from traditional communal values. Thiessen argues that "though in religious life Mennonites have asserted the value of community over individualism, in day-to-day practices most Mennonites are deeply implicated in capitalism's exaltation of the individual."[9] Others draw on a historical perspective to suggest that there is no apparent contradiction between individualism and responsibility to the community. Sommer, for instance, contrasts the views on economics in the teachings of Menno Simons with those of other Anabaptist writers such as the Hutterite leader Peter Rideman (1506-1556).[10] Where Rideman favoured the communal ownership of property and sharing of goods, Simons held that the community was a collection of individuals and that the latter was the focal point for economic activity. The good and desirable community was one

where individuals practised love and respect toward each other and a system of mutual aid was established, as good Christians are those who share with the community.

The type of individualism articulated by early Mennonites in no way compares to contemporary views, and early Mennonite individualism should not be overstated. According to Klassen, early Mennonites believed that "every aspect of one's economic life must reflect a total commitment to the lordship of Christ," with the family contributing to "the order, solidarity, communalism, and religious base of the community at large."[11] In other words, Mennonites individualism was not in any way absolute but was balanced against responsibilities to family, community and church.[12] The pertinent question is the extent to which these religious values have either accommodated or placed constraints on Mennonite participation in the "outside" economy.

According to Loewen, after World War II Mennonite communities such as the Rural Municipality of Hanover, Manitoba redefined their ethnic and religious identity in response to the pressures and opportunities associated with an increasingly urban and commercial economy. When the rural economy was organized around self-sufficient agrarian households, Mennonite identity was largely defined by a sense of separation from the outside world. But the countryside as "a pastoral refuge" was undermined with the spread of new transportation and communications facilities, the adoption of commercialized farming, and exposure to new consumer goods. Mennonite identity, accordingly, was recreated in a manner that facilitated integration into the national economy: "Their new selective tradition informed them that they had rid themselves of the closed, negative, ascetic aspects of the past, and had capitalized and progressed by Mennonite traits such as family cohesion, self-reliance and the work ethic."[13] It is not, therefore, the degree to which "traditional values" have persisted but rather how they have been transformed that has an important bearing on the incomes of Mennonites today.

Four aspects of these values are frequently cited. First and foremost, "the Mennonite work ethic" is identified as having "enabled Mennonites to be active participants in capitalist economies."[14] This "hard work" philosophy was important in the establishment of Mennonite agricultural colonies in western Canada (since it appealed to a government seeking migrants as a means of fostering regional economic development); so to it was equally important to subsequent participation in the "outside" economy. As agriculture could no longer absorb a growing population after World War II, the ability to adapt to wage labour became essential. But this does not imply a simple accommodation to external pressures. As Thiessen notes, the

virtue of hard work is identified too readily with the Protestant work ethic and ignores the difference in the notion of "diligence" derived from Mennonite thought from the traditional Protestant view: "The Mennonite work ethic stresses collective effort as evidence of one's relationship with God [and] . . . thus incorporates the collective values of honesty, trustworthiness, cooperation, and joint effort."[15]

The second, and more contentious aspect of Mennonite participation in the post-war economy is the "remarkable flowering of Canadian Mennonite entrepreneurship" described by Regehr.[16] If its central tenet is individual pursuit of material wealth and personal success, then entrepreneurship obviously presents a potential conflict with communal values.[17] Vogt argues, however, that the concept of entrepreneurship has been misconstrued as a strictly urban phenomenon and, as such, its historic place in Mennonite economic life misunderstood. Farming, after all, when directed toward markets rather than subsistence is an entrepreneurial pursuit. Despite their agrarian roots, Mennonites were active in entrepreneurial endeavours such as lumbering, fishing, banking and textiles as early as the 16th Century, just as in the latter half of the 20th Century "numerous urban businesses created by the new entrepreneurs emerged from simpler rural operations."[18]

Whether or not the Mennonite entrepreneur has been good for the community, the community has certainly been good for the Mennonite entrepreneur. Driedger observes that Mennonite businesses have benefited from the interconnections of "family networks, strong religious ties, and a cohesive community network."[19] Similarly, in her studies of Friesens Corporation and Palliser Furniture in Manitoba, Thiessen underscores the degree to which the "success of Mennonite-owned business may be attributed in part to the effective integration of religious belief and economic practice."[20] Friesens drew upon a highly-disciplined, obedient work force in the rural community of Altona and "was able to use a paternalistic management style to equate the Mennonite work ethic with corporate values."[21] In turn, paternalism, if it is to be successful, imposes reciprocal obligations on the employer since the approval of both workers and the community is contingent upon the company acting in a responsible fashion.

A third factor in the postwar economic integration of Mennonites in Canada was the commercialization of agriculture and its implications for the organization of the family. Subsistence farming entailed "mutually-dependent gender roles" while market-oriented farming "created gender-stratified households."[22] Farming became a male-dominated pursuit with women engaging largely in domestic labour or part-time work in the paid labour force.

The fourth aspect of Mennonite religious values that has a bearing upon economic activity involves the related concepts of

egalitarianism and mutual aid. The ideal of the loving community led Menno Simons to oppose wealthy living as not Christian on the grounds that inequality interfered with a stable community. Greater equality allowed Mennonite communities to "[achieve] the sense of brotherhood which the Hutterites received from having their goods in common"; however, such equality was not achieved through some form of "compulsory sharing" or mandated community taxation.[23] Rather, sharing was derived from the notion of the Christian love that individuals had toward one another, and equality was therefore expected to be voluntary. Klassen writes that "Obedience to the divine injunction to 'bear one another's burdens' must be voluntary."[34] From the beginning of Mennonite history in the early 1500s, then a system of mutual aid was established to provide shelter, minimum levels of income, food and clothing, employment, and refuge. The concept of mutual aid can be thought of in the Christian-Mennonite sense as both "individual Christians helping other individual Christians [and] coordinated sharing in the needs of others."[25] It acts as a form of charity, but is to be "above" charity in the sense that "there is not meant to be a hierarchal relationship between givers and receivers."[26] Since economic inequality is to be addressed on the basis of individual goodwill, it does not, of necessity, disallow individuals from accumulating significant income. An important expression of this principle was the adaptation and formalization of a "corporate model" of mutual aid in response to the growing number of Mennonite businesses in the early 20th Century.[27]

At the risk of oversimplification, then, the adaptation of Canadian Mennonites to economic changes after World War II has involved a redefinition of Mennonite identity in order to adapt to the dictates of modern market economy. Whether this is best deemed as a form of assimilation and "symbolic ethnicity" or of accommodation while retaining a commitment to religious values is a matter for debate elsewhere. Instead, ethno-religious values may well condition the participation of Mennonites in the Canadian economy and influence their standard of living today. Several factors may be expected to contribute to a relatively high standard of living. An adherence to individual responsibility and "diligence," as expressed in a strong ethic for work and self reliance, is consistent with a greater attachment to the paid labour force, including a higher participation rate and greater hours of employment. Embracing entrepreneurship as an activity not only consistent with Mennonite beliefs, but also benefiting from those beliefs, would result in greater self-employment income. Or the concept of "mutual aid" may enhance an individual's "social capital" to the degree that a tightly-knit community seeks to provide all of its members with the opportunity to work and prosper. In contrast, if a rural focus persists, including a sharper gender

division of labour and a more circumspect view of full participation in a capitalist economy, it would imply a lower level of average income.

2. Average Income of Mennonites in 1990

The observation that Mennonites, in 1990, earned less income on average than other Canadians is correct but possibly misleading. The difference in the "unconditional" mean incomes is biased by the fact that the Mennonite population is heavily concentrated in rural areas where incomes tend to be lower. Accordingly, inferences about attitudes toward work and other economic activity based on a difference in the unadjusted mean income may be erroneous.

Figure 1 displays the distribution of the Mennonite and total Canadian populations between large Census Metropolitan Areas (CMAs with a population over 1,000,000), medium-sized CMAs (with a population between 500,000 and 1,000,000), small CMAs (with a population between 100,000 and 499,999), and non-CMAs (or what we loosely refer to as "rural areas" with a population under 100,000). The data is restricted to individuals of normal working age (between 25 and 64 years old). The Mennonite population is heavily over represented in non-CMA or "rural" areas (45.3 per cent of Mennonites resided outside of CMAs compared to only 25.9 per cent of all Canadians) and under represented in large CMAs (only 7.5 per cent of Mennonites, compared to 22.2 per cent of all Canadians, lived in Toronto, Montreal or Vancouver).

Figure 1:
Urban/Rural Distribution of Population

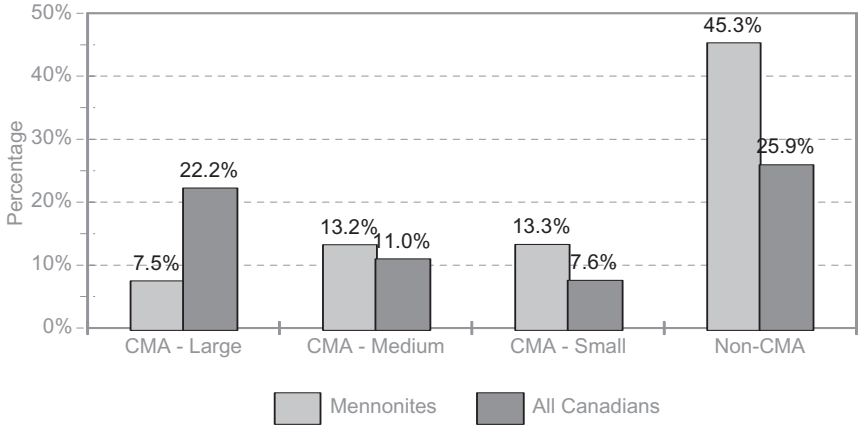


Table 1 considers the implications of this population distribution on mean incomes. The second last row compares the average income

of Mennonites and all Canadians according to gender. Among women, Mennonites received only 81.9 per cent of the Canadian average, while among men, Mennonites received 95.7 per cent of the Canadian average. When compared by place of residence the results are quite revealing. The earnings gap among women narrows in each residency category (and Mennonites earn more in medium-sized CMAs). For men, the income of Mennonites differs little from the Canadian average: it is slightly lower in non-CMA areas and higher in large and medium-size CMAs.[29] In other words, a significant portion of the income difference between Mennonites and all Canadians can be attributed to the large proportion of Mennonites living in rural areas.

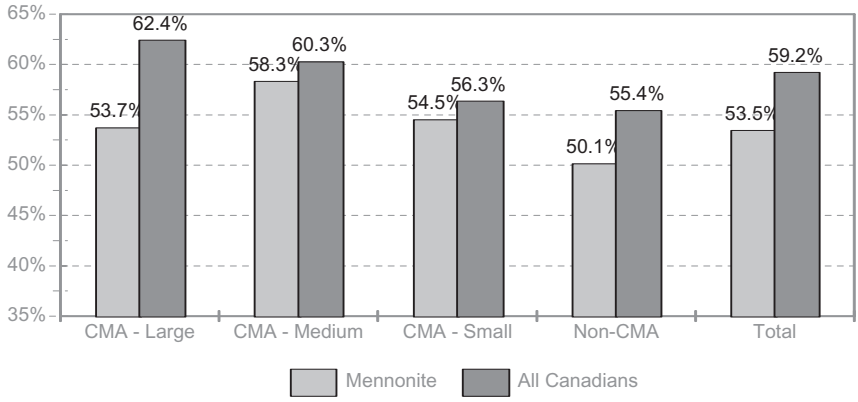
Table 1: Average Income, Mennonites and Total Population, aged 25-64, Canada, 1990

Residence	Women			Men		
	Mennonite	Total Population	Ratio	Mennonite	Total Population	Ratio
CMA						
Large	$17,289	$20,000	86.4%	$37,377	$36,080	103.6%
Medium	$19,593	$19,401	101.0%	$38,266	$36,228	105.6%
Small	$15,620	$17,996	86.8%	$33,061	$35,751	92.5%
Total	$17,404	$19,464	89.4%	$35,994	$36,059	99.9%
Non-CMA (Rural)	$12,108	$14,594	83.0%	$30,210	$31,090	97.2%
Total	$14,416	$17,598	81.9%	$32,644	$34,114	95.7%
Ratio Rural/CMA	69.5%	75.0%		83.9%	86 2%	

Source: Derived from Statistics Canada, 1991 Census of Canada, PUMP file for individuals.

Two other aspects of the data in Table 1 are noteworthy. The first is that the rural-urban (or non-CMA/CMA) income gap, displayed in the last row of the table, is much larger within the Mennonite population. Women living in rural areas received only 69.5 per cent of what their urban counterparts did, and rural men only 75 per cent of what urban men received. This compares to a national pattern of 83.9 per cent and 86.2 per cent for women and men respectively The second aspect, highlighted in Figure 2, is the larger gender-based income gap within the Mennonite population: women received roughly 53 per cent of what men received, compared to a ratio of 59 per cent in the general population. The gender gap tends to decrease with the level of urbanization, but is consistently higher in the Mennonite population.

Figure 2: Income Gap, By Gender
women's income as % of men's



Additional insights into the economic activity of Mennonites can be obtained by considering differences in the source of income. Table 2 displays a breakdown of the incomes of Mennonites and the total population according to four principal components: wages and salaries; self-employment income; government transfer payments; and investment income. The pattern of income is fairly consistent regardless of gender or place of residence. Mennonites tend to have lower wage and salary earnings, significantly higher self-employment income, rely less on government transfer payments, and generally have higher investment income. This reinforces two commonly-held views: that Mennonites have embraced entrepreneurial activities is reflected in higher self-employment earnings, and the virtue of "self-reliance" is consistent with the lower dependence on government transfer payments. The last column indicates the incidence of low income. Despite the lower mean income of Mennonites, their rate of poverty in urban areas is much lower than the national average, while in rural areas it is much the same.

Table 2: Total Income, by Sou c Mennon t an Total Popu ati n, Canada 1990 aged 25-64 excluding non private households						
	Wages & Salaries	**Self Employment. Income**	**Government Transfers**[1]	**Investment Income**	**Total**	**% Poor**
A CMAs						
Women						
Mennonite	$13,880	$904	$1,073	$1,174	$17,404	11
T tal	15 817	$667	328	089	19,429	15
Mennonite/Total	87 8%	135 5%	80.8%	107 8%	89.6%	73 3%
Men						
Mennonite	$28,900	$3,486	$ 231	$1,727	$35,994	9
Tot l	$29,794	$2,531	$1,592	$1,252	$36,041	12%
Mennonite/Total	97.0%	137.7%	77.3%	137.9%	99.9%	75.0%
B Non-CMAs (Rural)						
Women						
Mennonite	$8,440	$1,389	$1,167	$810	$12,108	14%
Total	$11,073	$647	$1,649	$821	$14,594	14%
Mennonite/Total	76.2%	214.7%	70.8%	98.7%	83.0%	100.0%
Men						
Mennonite	$20,853	$5,468	$2,354	$1,120	$30,210	12%
Total	$24,127	$2,639	$2,495	$1,045	$31,091	11%
Mennonite/Total	86.4%	207.2%	94.3%	107.2%	97.2%	109.1%

Source: Derived from Statistics Canada, 1991 Census of Canada, PUMP file for individuals.

Closer inspection of the income data, therefore, provides a modified portrait of the relative prosperity of the Mennonite population in Canada After adjusting for gender and place of residence, the average income of Mennonite men differs little from that of for all Canadian men. Among women, the difference becomes less pronounced (roughly 11 per cent in urban areas and 17 per cent in rural areas). Furthermore, the income gap between urban and rural residents, and between men and women, is much larger within the Mennonite population. Finally, when one considers the pattern of income by source, the commonly held view of Mennonites being more entrepreneurial and self-reliant is reinforced.

The salient question, then, is not why Mennonites in general tend to earn less, by why the average income of Mennonite women, and especially those living in rural areas, is so low.

3. Economic Characteristics of the Mennonite Population

There are three possible explanations for the observed differences in size and pattern of income between Mennonites and the overall Canadian population: a) the "human capital" characteristics of individuals, where one would expect those with more education, skills and work experience to be rewarded in the labour market with higher pay; b) work behaviour or, more specifically, the degree of participation in the paid labour market; and c) personal characteristics, such as age and marital status, which may have

an indirect impact on labour market behaviour. Tables 3 through 5 consider each of these factors in turn.

Two measurable differences in human capital – educational attainment and language skills – are displayed in Table 3. Education attainment refers to the highest degree obtained. What is striking is the contrast in the education levels between Mennonites living in urban versus rural areas. Urban Mennonites display a relatively high educational attainment: 19.8 per cent of women and 25.6 per cent of men held a university degree, roughly 5 per cent more than in the general population. On the other hand, Mennonites living in rural areas have, on average, a very low level of education attainment: 48 per cent have not completed high school, compared to 37 per cent in the general population.

Language skills are more difficult to assess. Begin by assuming that French or English is the normal language of work. In the Census survey, individuals report their knowledge of an official language with either a "yes" or "no" answer, so it provides an extremely crude measure of official language skills since it does not reflect the degree of proficiency. Two alternative measures are perhaps more indicative of an individual's fluency in English or French: "mother tongue" and "language most commonly used in the home." As indicated in Table 3, a high percentage of the Mennonite population reports knowledge of English, but less frequent use of English or French in the home, and a much lower proportion report English or French as their mother tongue. One might infer from this that the Mennonite population has, in general, less proficiency in the normal language of work.

Table 3: Human Capital Characteristics, Mennonite and Total Population, Canada, 1991

	Urban				Rural			
	Women		Men		Women		Men	
	Mennonite	Total	Mennonite	Total	Mennonite	Total	Mennonite	Total
A. Educational Attainment (% of individuals within group)								
Less than Grade 9	12 0	7 8	12 0	8 8	28 5	12 8	29 0	14 7
Grade 9-13, no High School certificate	16 3	17 7	15 5	17 1	20 3	24 2	19 7	23 3
High School Graduate	10 3	17 3	8 6	12 7	13 7	17 5	8 5	13 1
Less than University Degree	41 4	39 3	38 4	40 9	31 3	39 2	31 3	39 2
University Degree	19 8	15 9	25 6	20 5	11 2	9 6	11 2	9 6
B. Language Skills in English or French (% of individuals within group)								
Knowledge of an Official Language	98 3	97 9	99 7	98 8	98 6	99 7	99 1	98 8
Mother Tongue: English or French	50 3	77 2	50 3	76 3	44 6	98 6	99 8	92 1
Language Spoken in Home: English or French	90 1	86 6	90 6	86 5	78 2	97 1	80 4	97 0

Source: Derived from Statistics Canada, 1991 Census of Canada, PUMP file for individuals

Table 4 displays four different aspects of labour market activity: the proportion of the working age population active in the paid labour force, the unemployment rate, average hours worked per week and the number of weeks worked per year. This data casts some light on the strength of the Mennonite work ethic and virtue of self-reliance. Mennonite men, and particularly those living in rural areas, do indeed, on average, work harder in the paid labour market than the average

Canadian man: their participation rate, hours worked per week, and weeks worked per year are consistently higher. Moreover, if their remarkably lower unemployment rate is at all indicative, they also exhibit greater self-reliance. The situation with women is different. Mennonite women have a slightly lower labour force attachment, and tend to work fewer hours per week and weeks per year. They do, however, have a significantly lower unemployment rate. In short, relative to their counterparts in the general population, Mennonite men tend to work more, and Mennonite women less, in the paid labour market.

Part of the explanation for the pattern of work rests with differences in marital status. As Table 5 indicates, the incidence of marriage is much higher in the Mennonite population, particularly among those living in rural areas. Given the common division of labour within families – with men working more in the paid labour force and women more in domestic work – it is not surprising to find Mennonite men tend to work more, and Mennonite women less, in the paid labour force.

Taken together, human capital, labour market behaviour and marital status, point to a sharp difference between the urban and rural Mennonite populations. Urban Mennonites have a high educational attainment, a high degree of attachment to the paid labour market, and a slightly greater likelihood of being married than their Canadian urban counterparts. In contrast, rural Mennonites have a particularly low level education attainment. Relatively to the rural population in general, Mennonite men display a greater involvement in the paid labour market and women a lower participation rate, a pattern consistent with the particularly high proportion of rural Mennonites that are legally married.

This information goes some distance in explaining the larger urban-rural income gap within the Mennonite population, as well as the relatively low incomes of Mennonite women. It does not, however, address the third question of the relative importance of factors such as education, language skills and labour force attachment on income and whether or not Mennonites obtain a similar return on their human capital as other Canadians. Regression analysis can be employed in order to provide a more robust assessment of the determinants of income between Mennonites and other Canadians.

Individual data from the 1991 Census can be fitted to a typical wage equation for both the Mennonites and non-Mennonite population using ordinary least-squares regression analysis. The purpose of this exercise is to differentiate between an individual's labour market skills and the "return" or reward received for those skills in the labour market. For instance, there may be two individuals with identical human capital attributes, personal characteristics

and work behaviour but whose earnings differ. Regression analysis gives an estimation method to differentiate between the various characteristics of individuals and the relative reward they receive for each of these characteristics; furthermore, estimating the earnings function separately for Mennonites and non-Mennonites allows us to highlight differences between the two groups. An outline of this statistical procedure, and a summary of the data used are presented in an Appendix. We restrict the discussion here to the empirical results.

The estimated coefficients on each labour market characteristics presented in Table 6 can be interpreted as percentage change in earnings, or the "reward" attributable to each variable. Consider first the estimated results for men in Columns 4 and 5. As expected, earnings tend to increase with completion of a university degree, with each additional year of schooling, and with each additional year of work experience. Language skills are also important: earnings are lower where English or French is not the language normally used in the home. Earnings tend to increase with marriage and are lower among rural residents. When comparing the size of the estimated coefficients for the two groups, however, the striking result is the much lower rate of return on education among Mennonite men. They obtain a lower reward for holding a university degree (9.3 versus 20.7 per cent) and on additional years of schooling (3.5 versus 4.7 per cent). In contrast, they receive a higher return on additional years of work experience (5.2 versus 3.7 per cent), pay a lower penalty for less proficiency in English or French (11.2 versus 27.0 per cent), a higher penalty for living in a rural area (14.8 versus 10.4 per cent), and their earnings tend to increase less by virtue of being married (12.8 versus 22.6 per cent).

What explains this difference in the way Mennonite and non-Mennonite men rewarded in the work place and, in particular, why do Mennonite men obtain a lower return on education? One plausible interpretation is the existence of social capital in the form of informal employment channels within the Mennonite community. Since employers have imperfect information about of potential employee's human capital skills, economists argue that a university degree, independent of years of schooling, is an important avenue through which individuals "signal" their potential future productivity. Within a tightly-knit community, social networks enhance information about potential employees, such that the credential effect of a university degree is less important.

Interpreting the results for women is more difficult. Despite slightly different rates of return on a university degree, years of schooling, work experience and language skills between Mennonites and non-Mennonites, the net reward on human capital is ambiguous.

What is striking is the lower earnings of Mennonite women by virtue of being married and living in a rural area. This likely reflects the persistence of rural-based economic activity where a sharper gender division of labour prevails

Table 4: Labour Market Activity, Mennonite and Total Population, Canada, 1990

	Part cipation Rate	Unemployment Rate	Avg. Hours of Work p r Week[1]	Avg. Weeks f Work per Year[2]
URBAN				
Wom n				
	75.2	5 8	26 8	2 8
	75 6	3	28 7	3 7
Men				
Me nonite	93 7	4 6	9 1	
To al Population	90.1	8.0	36.3	46.1
RURAL				
Wom n				
Mennonite	68.0	5.7	26.0	41.2
Total Population	71.2	10.9	27.0	41.0
Men				
Mennonite	94.5	3 9	45	6 1
Total Population	90.5	10.6	37.3	43.8

Notes:
1. Includes only those individuals employed during the reference week and with positive annual earnings.
2. Includes only those with positive annual earnings.

Source:Derived from Statistics Canada, 1991 Census of Canada, PUMP file for individuals.

Table 5: Marital Status, Mennonite and Total Population, Canada, 1991

		Marital Status			
	Married	**Divorced**	**Separated**	**Single**	**Widowed**
URBAN					
Wome					
Mennonite	69.1	5.6	0.6	19.1	5.6
Total Pop lation	66.1	9.3	4.4	16.2	3.9
Men					
Mennonite	72.2	4.5	1.1	21.0	1.1
Total Populat on	66.4	6.7	3.6	22.2	1.1
RURAL					
Women					
Mennonite	86.8	2.1	1.4	6.5	3.0
Total Population	77.5	5.5	3.0	9.7	4.4
Men					
Mennonite	85.4	1.1	0.4	12.9	0.4
Total Population	72.9	5.4	2.8	18.0	0.8

Source:Derived from Statistics Canada, 1991 Census of Canada, PUMP file for individuals.

Table 6: Regression Results				
Dependent Variable: Ln(Earnings)				
	Estimated Coefficients			
Independent Variable:	**Mennonite Women**	**Non-Mennonite Women**	**Mennonite Men**	**Non-Mennonite Men**
UNIV	0.309	0.248	0.093	0.207
YRSSCHOOL	0.041	0.058	0.035	0.047
WORKEXP	0.017	0.022	0.052	0.037
WORKEXPSQ	*-0.001**	-0.001	-0.001	-0.001
HOMELANG	-0.298	-0.102	-0.112	-0.270
LNWEEKS	0.863	0.996	0.897	0.889
MARRIED	-0 158	-0.069	0.128	0.226
RURAL	-0.197	-0 178	-0.148	-0.104
constant	5.645	4.975	5.656	5.723
R-adj	0.298	0.37	0.309	0.309
n	1,106	159,934	456	191,711

*Insignificant at the 95% confidence level.

4. Conclusion

This paper began with the observation that the average income of Mennonites in Canada was roughly 10 per cent below the national average. In an effort to reconcile this with the commonly-held view of the relative prosperity of the Mennonite population, we first re-examined data from the 1991 Census according to place of residence for both men and women. After adjusting for the urban-rural distribution of the population, the mean income of Mennonite men was little different from the average for all Canadian men, but that a gap between the income of Mennonite women and all Canadian women, especially among those residing in rural areas, persisted. Stated differently, within the Mennonite population the income gap between urban and rural residents, and between men and women, was larger than that found among the total Canadian population. The salient research question is not why the mean income of Mennonites is lower, but why the mean income of Mennonite women, particularly those living in rural areas, is so low.

A more detailed examination of the income of Mennonites and other Canadians tended to reinforce several popularly-held views of Mennonites. In particular, Mennonite tend to have much higher self-employment earnings, much less reliance on government transfer payments, and a lower incidence of low income. These observations are consistent with the contentions that Mennonites have a greater proclivity toward entrepreneurship, and greater adherence to ethics of hard work and "self-reliance."

We then examined the human capital attributes and labour market

activity of individuals. In terms of human capital endowment, the most notable factor was the relatively high educational attainment of Mennonites living in urban areas, and the low educational attainment of rural Mennonites. In terms of labour market activity, Mennonite men do indeed work harder: they have strong attachment to the paid labour force, work longer hours and have a strikingly low rate of unemployment. Mennonite women, in contrast, had a slightly lower labour force attachment and tended to work less in the paid labour market, characteristics that we attribute to a higher rate of marriage and, consequently, the greater gender division of labour among Mennonites.

Given these differences in human capital and work behaviour, regression analysis was conducted in order consider if Mennonites were "rewarded" differently from the general population. This exercise confirmed many of the earlier conclusions about the impact of marriage on earnings, and the lower earnings of rural residents. The most surprising result was the relatively low rate of return on education that Mennonite men experienced. That formal education has less impact on the earnings of Mennonite men, while they receive a higher reward for work experience, is interpreted as indicative of informal employment channels.

These finding lead us to offer one broader, and admittedly speculative, conclusion about the economic activity of Canadian Mennonites and their earnings relative to the rest of the population. The concentration of the Mennonite population in rural areas, coupled with the larger urban-rural income gap, implies that the economic integration of the Mennonite population may be less complete than is often suggested. There are significant differences in the education levels, language skills, labour market activity and even in marital status between urban and rural Mennonites. Each of these factors suggest a very different orientation toward the paid labour market, particularly among women. In short, the low mean income of Mennonites can be attributed primarily to the sharp gender division of labour that can be found among Mennonites living in rural areas.

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Appendix: Estimating the Determinants Income

Economists typically estimate an individual's earnings according to a simple wage function:

$\ln(\text{EARNINGS}) = \beta_i X_i + \beta j X_j + \beta_{ik} X_k + \epsilon (1)$

where ln(EARNINGS) is the natural log of total annual earnings from employment and self-employment; X_i, X_j, and X_k, are vectors of human capital traits, labour force activity and personal characteristics respectively; the coefficient terms β_i, β_j, and β_k are the "rate of return" on their respective variables, and ϵ is a random error term.

Among "observable" human capital features, education attainment is often measured in two ways.

The first the number of years of formal schooling (YRSSCHOOL) and the second is whether or not an individual possesses a university degree (UNIV). Additional years of schooling are expected to capture the acquisition of useful labour market skills, while the UNIV variable is interpreted as the credential or "sheepskin effect." In other words, independent of one's years of schooling, does possession of a university degree further contribute to an individual's annual earnings? Among the various indicators of language skills, the language an individual normally uses in the home (HOMELANG) best captures an individual's proficiency in the normal language of work. We expect that individual's whose home language is other than English or French have poorer language skills in one of the official languages and, therefore, tend to earn less. Finally, since workers are expected to gain greater knowledge and skills through work experience, the number of years in the labour force is an important predictor of an individual's income. Where labour market skills are acquired on the job, more years of work experience is likely to contribute to greater productivity and higher income.[31]

We also include a measure one's annual weeks of work to control for differences in work activity in the paid labour market (WKSWORK), and two dummy variables (MARRIED and RURAL) to control for differences in marital status and place of residence.[32]

Equation (1), therefore, can be rewritten in the form:

$$LN(EARN) = \beta_0 + \beta_1 UNIV + \beta_2 YRSCHOOL + \beta_3 HOMELANG + \beta_4 WORKEXP + \beta_5 WORKEXPSQ + \beta_6 LN(WKSWORK) + \beta_7 MARRIED + \beta_8 RURAL + \epsilon \quad (2)$$

where UNIV = possession of a university degree (1 if yes, 0 otherwise);
YRSSCHOOL = number of years of formal schooling;
HOMELANG = language normally used in the home (1 f English or French, 0 otherwise);
WORKEXP = potential years in the paid labour force;
WORKEXPSQ = WORKEXP squared;
LN(WKSWORK) = natural log of weeks worked per year;
MARRIED = marital status (1 if legally married, 0 otherwise);
RURAL = residing in a rural area (1 if rural, 0 if urban).

A Summary of the data used is provided in Table 7.

Table 7: Description of Data Used and Mean Values

		Women		Men	
Variable	**Description**	**Mennonite**	**Non-Mennonite**	**Mennonite**	**Non-Mennonite**
LNEARNINGS	annual earnings in 1990$	16,489	20,178	30,845	34,070
	(expressed as natural log)	9 25	9 52	10 02	10 13
Human Capital Characteristics					
UNIV*	holds a university degree	0 103	0 149	0 181	0 157
YRSSCHOOL	years of education	11 9	12 8	11 8	12 7
WORKEXP	Age - Years of Schooling - 6	21 0	20 1	22 0	21 3
WORKEXPSQ	WORKEXP squared	441 0	404 0	484 0	453 7
MTONGUE*	mother tongue other than English or French	0 650	0 194	0 665	0 206
HOMELANG*	language used in the home not English or French	0 116	0 081	0 148	0 084
Work Effort					
LNWORK	natural log of annual weeks worked	42 2	43 1	47	45 8
	(p ss d as natu a log)	3 74	3 76	3 85	3 82
Personal Characteristics					
MARRIED*	egally mar ed ot se arated	76 0	64 4	8 3	67 3
R R *	esides non MA	53 4	36 3	57 8	38 5
Dummy variable, assumes a v u f f me t cond t on, 0 otherwise					

1 The income figures are calculated from the 1991 Census of Canada "pump" microfiles which are based on a 3% s mple of the Canadian population (Statistics Canada, 1994). They refer only to hose individuals between the ages of 25 and 64. and The 2001Census repor s that here were 191,470 Mennonites in Canada down from 207,970 in 991. Income data by religious affiliation for 2000 has yet to be released (Statistics Canada, "Religions in Canada," 2001 Census Analysis Series. Ottawa, 2004).

2 Hecht, Alfred, "Mennonites and the Canadian Society: A Financial Well-Being Comparison," in Calvin Redekop *et al* (eds.), *Anabaptist/Mennonite Faith and Economics* (Lanham, Md: University Press of America, 1994).

3 John H. Redekop, "The Interaction of Economics and Religion: The Case of the Mennonite

Brethren in Canada," *Direction* (1981) 10(3): 48-68. Abe J. Dueck reaches a similar conclusion: "it is clear that Mennonite Brethren are wealthy in absolute as well as in relative terms" ("Economics, Faith and Practice," *Direction* 14(2): 50-53).

4 Calvin Redekop, Stephen Ainlay and Robert Siemens, *Mennonite Entrepreneurs*. Baltimore: The Johns Hopkins University Press, 1995).

5 Much of the discussion of the relative earnings of Mennonites in North America makes reference to the finding from Kauffman-Harder survey of 1971 that the median income of Mennonite households was higher than that of all American households. This conclusion is open to question since it compares survey results drawn from a sample of American and Canadian households to US Census data (where the methodology and definition of income is different). Similarly, in the Kauffman-Driedger attempt to update the data in 1989, reported income figures do not indicate if they are cited in US or Canadian dollars, or even if any effort was made to convert US and Canadian data into a common currency. See J. Howard Kauffman and Leland Harder, *Anabaptists Four Centuries Later* (Waterloo: Herald Press, 1975; and J. Howard Kauffman and Leo Driedger, *The Mennonite Mosaic* (Waterloo: Herald Press, 1991).

6 The 2001 Census of Canada "Pump" microfiles do not isolate "Mennonite" as a separate religious affiliation.

7 A consistent finding is that Jewish families tend to invest more in their children's human capital. Alternatively, it is hypothesized that Roman Catholics may earn less because of a tendency to have more children and, as a result, there are fewer family resources available to each individual child. Empirical results, however, do not support this contention. For Canadian studies, see Nigel Tomes, "Religion and the Rate of Return on Human Capital: Evidence from Canada," *Canadian Journal of Economics* (1983) 16: 122-38 and "The Effects of Religion and Denomination of Earnings and the Returns to Human Capital," *Journal of Human Resources* (1984) 19: 472-88; and Ronald Meng and Jim Sentance, "Religion and the Determination of Earnings: Further Results," *Canadian Journal of Economics* (1984) 17: 481-88.

8 George J. Borjas, "Ethnic Capital and Intergenerational Mobility," *Quarterly Journal of Economics* (1992) 107: 123-50.

9 Janis Thiessen, "Mennonite Business and Labour Relations: Friesens Corporation of Altona, Manitoba, 1933-1973," *Journal of Mennonite Studies* (1998): 182.

10 Donald Sommer, "Peter Rideman and Menno Simons on Economics," *Mennonite Quarterly Review* (1954) 28: 205-223. For a more detailed account of the range of Anabaptist views on property, communalism and sharing, see Peter Klassen, *The Economics of Anabaptism: 1525 1560* (London: Mouton & Co, 1964).

11 Klassen, Economics, 116

12 This dynamic is best captured in the account of the Kleine Gemeinde migration to Nebraska and Manitoba in Royden K. Loewen, *Family, Church and Market: A Mennonite Community in the Old and the New Worlds, 1850-1930* (Toronto: University of Toronto Press, 1993).

13 Royden Loewen, "Rurality, Ethnicity and Gender Patterns of Cultural Continuity During the 'Great Disjuncture' in R.M. of Hanover, 1945-1961," Journal of the Canadian Historical Association (1993) 4: 161-82.

14 Thiessen, "Mennonite Business and Labour Relations, 182.

15 Thiessen, "Mennonite Business and Labour Relations," 182.

16 T.D. Regehr, *Mennonites in Canada, 1939-1970: A People Transformed*. Volume 3 of *Mennonites in Canada* (Toronto: University of Toronto Press, 1996).

17 Redekop points to the historical situation among Russian Mennonites where "the forces of communal cohesion clashed with those of private achievements, and conflict between the landless and the estate owners presents a sorrowful picture" (Redekop, 1994, 296).

18 Roy Vogt, "Entrepreneurship, Labourers, Professionals and Farmers: A Response to *Mennonites*

in Canada: A People Transformed," *Journal of Mennonite Studies* (1997) 15: 134-41.

19 Leo Driedger,"

20 Thiessen, "Mennonite Business and Labour Relations," 181; and "Mennonite Business in Town and Country: Friesens Corporation of Altona and Palliser Furniture of Winnipeg," *Mennonite Quarterly Review* (1999): 585-600.

21 Thiessen, "Mennonite Business and Labour Relations," 182.

22 Loewen, "Rurality," 170.

23 Sommer, "Peter Rideman," 211-12; 222.

24 Klassen, *Economics*, 115

25 Joseph J. Kotva, "Mutual Aid as 'Practice.'" In William M. Swartley and Donald B. Kraybill, *Building Communities of Compassion* (Scottsdale: Herald Press, 1998), 69.

26 Kotva, "Mutual Aid," 69-70

27 Donald B. Kraybill, "The Changing Face of Corporate Care," in *Building Communities of Compassion*.: 298-300.

28 Interpreting data from the 1991 Census microfiles is complicated by the fact that under the "religious affiliation" variable, "Mennonites and Hutterites" are grouped together. Despite the shared Anabaptist heritage, it is appropriate to eliminate Hutterites from the sample given their distinctive communal organization which is difficult to measure by traditional economic categories. In order to exclude Hutterites from the sample, we eliminate all individuals living in "non-private" households, a category in the Census which includes "Hutterite Colonies."

29 The apparent statistical anomaly that the income gap is lower in each sub-category than the overall gap reflects the concentration of Mennonites in rural (or non-CMA) areas. It is also noteworthy that, among Mennonites, the data for medium-sized CMAs is dominated by Winnipeg residents. That Mennonites earned more than non-Mennonites might suggest the importance of "ethnic clustering" and social capital on an individual's earnings.

30 A similar explanation is offered by Tome, and by Meng and Sentance is seeking to explain the relatively low return on education received by Jews in Canada. An alternative explanation is that education is treated less as an "investment good" by Mennonite men; that is, their acquisition of schooling may be for other reasons than simply higher future earnings.

31 Since actual work experience is not reported in the Census, "Mincer's rule" can be applied in order to estimate *potential* years in the labour market. This assumes that potential labour force experience is equal to one's age in years, fewer years of school, that is, less five years. In other words, individuals are assumed to enter school at the age of five, and then enter the labour force after completing their education. It is intended to capture the skills acquired through work and enters the equation is quadratic form since earnings is expected to increase with years of work, but at a declining rate.

32 Since WKSWORK is expressed in terms of the natural log, the estimated coefficients can be interpreted as the percentage change in weekly earnings attributable to each independent variable.