Married-Couple Family Earnings Inequality in Canada and the U.S.

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First Draft: August 2000 PRELIMINARY, DO NOT QUOTE, SVP

We thank Martin Dooley and Mau Meere for helpful conversations, Alykan Keshvani for research assistance and the Canadian International Labor Network and the Social Sciences and Humanities Research Council of Canada for financial support.

Abstract

We study earnings inequality amongst young married couples in Canada and the U.S. over the period between 1971 and 1999. In the 1970s women married to higher income men were less likely to work for pay than women married to lower income men. Thus women's earnings tended to make the distribution of earnings among married couples more equal. Over the following two decades the relationship between the earnings of wives and husbands changed. By the mid-1990s, controlling for age and educational attainment of both spouses, another dollar of husband's earnings was much less likely to be associated with a reduction in wife's earnings; in fact, in Canada, it was associated with a significant *increase* in wife's earnings. We conclude that the change in the relationship between spousal earnings contributed significantly to an increase in earnings inequality among young married couples in both Canada and the U.S.

1 Introduction

Gary Becker observed that "... 'likes' tend to marry each other, when measured by intelligence, education, race, family background, height, and many other variables, and that 'unlikes' marry when measured by wage rates and some other variables. The implication that men with relatively high wage rates marry women with relatively low wage rates (other variables being held constant) surprises many, but appears consistent with the available data when they are adjusted for the large fraction of married women who do not work (see Becker, 1973)" (1979, p. 15). We argue that Becker's statement is an accurate description of Canadian and American data for young married couples in the seventies but over the last twenty years it has become more common for 'likes' (in terms of earnings) to marry each other and that this change in married-couple behaviour has contributed significantly to an increase in their earnings inequality over time.

Following is an outline of the paper. We begin by describing the data sets employed for each country. Sections 3 and 4 examine the extent and timing of the increase in family earnings inequality, and the role of the increase in earnings of women married to higher income men. In section 5 we study the changing relationship between wife's earnings and husband's earnings, conditional on age and educational attainment of both spouses. Section 6 summarizes and concludes.

2. The data

Statistics Canada's Survey of Consumer Finances (SCF) collected information on household incomes annually from 1970 to 1996. It has now been replaced by the Survey of Labour Income Dynamics (SLID). As a supplement to the Labour Force Survey the SCF was based on the LFS sampling frame which, in turn, was structured on information gathered in the censuses. SCF data on *economic* families (a household in which the members are related by blood, marriage or adoption, or single individuals living alone) are publicly available from Statistics Canada and have been used by most researchers studying family incomes. Following some discussions with Mau Meere of Statistics Canada, however, we decided to use SCF data for *census* families

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because the economic family files do not provide information on married couples living with a parent, while the census family files do provide information on these couples.

Census family SCFs are publicly available for odd-numbered years in the seventies and every year from 1981 to 1996 with the exception of 1983. Income data for the 1983 calendar year were collected as part of the income, assets and debts survey conducted in the spring of 1984 and the 1983 income data are not comparable to the data for earlier or later years. SCF data still exist for the even years in the seventies but the sample sizes are small and to this point Statistics Canada has not made these data available to researchers outside the Bureau.

U.S. CPS data on individuals are now available on CDs for the period 1964 to 1999. Using a variety of individual variables we were able to assemble reasonably consistent information on the earnings and education levels of married couples. Briefly, we selected married couples with wife present and then used spouses' line numbers to identify married couples in each household.¹

We study the earnings from paid employment and self employment of young married couples. Husbands are aged 25 to 34; family earnings must be positive. Past research has shown that the labour market experiences of young workers vary sharply across regions of both the U.S. and Canada. In an attempt to obtain "cleaner" samples a researcher might choose to work with the data for each region of each country separately. Even this might not be a fine enough geographical breakdown, of course, because the "regions" of say Ontario or the Northeastern U.S. are still quite heterogeneous. In any event the results reported below are for the U.S. and Canada; we use the SCF and CPS universal weights. The reader should be aware, however, that some of the changes in inequality arise from changes across and within the regions of each country.

Panels A and B of Table 1 (hereafter Table 1-A, B) present descriptive statistics for our Canadian sample years, 1971 to 1996, and Table 1-C,D report numbers for the U.S., 1976 to 1999. Processing of the CPS questionnaires changed in 1988. The "1988" rows of each table are based on older processing methods; the 1988b row uses data from the newer methods. Since couples have married a bit later over our data periods one would expect the average age of both

¹ All data manipulations in this paper were performed with GAUSS version 3.2.14. Programs are available upon request.

husbands and wives to rise somewhat, and indeed, the averages do rise by one or two years, with the exception of U.S. husbands. In addition, the average age difference between husbands and wives declined slightly in both countries. There have also been changes over time (and across regions) in whether or not young couples choose to marry. Our understanding from Statistics Canada's documentation is that over our data period "married" always meant "married or living common law". We are less sure that interviewers have applied the definitions consistently over the last thirty years. Our hope is that by omitting married couples with husbands aged 18 to 24 we have increased the consistency of our sample of "young" couples.

Throughout the paper we report Canadian earnings statistics in 1996 Canadian dollars and U.S. earnings statistics in 1996 U.S. dollars. In Canada, real incomes rose by about 18 percent over the decade of the seventies, dipped during the early eighties recession, recovered in the mid-eighties, and then were relatively stable between the mid-eighties and the mid-nineties. Both the mean and the median peak in 1988 and the absence of significant real earnings growth in the recovery after the recession of the early nineties is remarkable. Deducing trends in real income is more difficult with the U.S. data because in most years CPS data on earnings is bottom-coded and/or top-coded, and the break points vary over time. For example, one's eye is drawn to the divergence between mean and median in the 1991 and 1996 rows of Table 1-C. While it is, of course, quite possible for this to have occurred we do not think it did given results reported later in this paper (see the discussion Figure 1b-D below). If we focus on the median, which is insensitive to top and bottom coding, and we remember that the U.S. data start in 1976 not 1971 as in Canada the trends in real income levels in the U.S. are much like those in Canada.

We report four measures of inequality in Table 1. The variance of log earnings is a popular measure but it is known to be sensitive to outliers in the data and in Table 1 it does perform some wild gyrations relative to the other measures (Table 1-A, 1971-1981). The Gini coefficient is also a popular and well-known inequality measure and one that is less sensitive to particular observations. Our third measure - JMP - is the one used by Juhn, Murphy and Pierce in their 1993 JPE article; it is the log of the ratio of the .9 quantile to the .1 quantile. Our fourth measure, the relative quantile - RQ - is similar to JMP's measure. It is the difference between the .9 and .1 quantiles divided by the median (see Burbidge, Magee and Robb (1997)). To facilitate comparisons across the two countries and the four inequality measures, we index each inequality measure to100 for 1981.

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Tables 1-A and 1-C show that, in the U.S. and Canada, the increases in the JMP and RQ measures were both about 25 percent over the 1981-1996 period. The Gini rose by more in the U.S. – 26 percent – than in Canada – 18 percent, while the corresponding numbers for the variance of the log of married couple-earnings were 53 and 33 percent. While the inequality measures do move around relative to each other in each country, and across the two countries, it is clear that there has been a substantial increase in earnings inequality of married couples between the seventies and the nineties. Moreover, evolution towards greater inequality has not proceeded gradually in either country. Inequality jumped in the early eighties and again at the beginning of the nineties decade in both countries. And while inequality fell during the mideighties it has shown only a mild tendency to diminish over the 1994 to 1996 period. We examine the asymmetries between the seventies and the eighties and the eighties and the eighties and the nineties.

While tracking inequality measures over time does indicate trends in earnings distributions, graphs of smoothed earnings densities for one or more years add useful information. We have graphed earnings densities for every pair of years in our sample and present some of the more noteworthy pairs in the panels of Figures 1a for Canada and 1b for the U.S.² Figures 1a-A and 1b-A support the case for the extent of the change in the earnings distribution for married couples between the seventies and the nineties in each country, and for the similarity across countries in the shifts of the earnings distributions over this period. A good deal of the mass in the middle of the seventies distributions moved into the upper and lower tails of the nineties distributions. In an earlier paper on earnings inequality (Burbidge, Magee and Robb, 1997) we measured the "spread" of a distribution by the absolute value of deviations from the median, divided by the median, and employed Mann-Whitney U-statistics to test whether the spread of two distributions differed significantly. The Mann-Whitney U-statistic for the change between 1975 and 1996 is 5.98 for Canada and 13.77 for the U.S., 1976-1996.

Figures 1a-B,C and 1b-B,C show that even though the increase in inequality in Canada and the U.S. was similar over the full data period the countries did not move together lock-step. For

 $^{^{2}}$ We used a normal distribution as well as the universal weights to generate the smoothed densities. The bandwidth, which is the same for all graphs for each country, is based on the formula in Ullah (1988, p. 643), averaged over the sample years.

example, in Canada, the lower tail looks to be little changed between 1975 and 1981 with the middle shifting into the upper tail. In the U.S. over this period the whole distribution shifts leftward - real earnings fell. The U.S., 1981-1991, looks like Canada, 1975-1981. Most of the increase in inequality in Canada, 1981-1991, occurs with the middle of the distribution shifting into the lower tail. Figures 1a-D and 1b-D show relatively smaller changes in earnings densities but the Mann-Whitney U-statistics are large and negative; -3.25 for Canada and -63.58 for the U.S.

To summarize, SCF data for Canada and CPS data for the U.S. point to an increase in earnings inequality among young married couples particularly between the seventies and 1991. Panel B Table 1 show that in Canada, the percentage of wives earning less than \$1,000 1996 dollars was 53 percent in 1971, that this percentage fell steadily to 20 percent in 1988 and hovered at this number until 1996. (Although the percentage of husbands earning less than one thousand 1996 dollars has risen over our data period it never exceeds 4 percent.) Inspection of panels B and D of Table 1 reveals similar mid-seventies starting points, 43 percent for Canada, 45 percent for the U.S., and similar time paths in the two countries, but the U.S. percentage for wives earnings less than \$1,000 levels off at 25 percent, not 20 percent.³ On the basis of timing alone, it cannot be that the increase in the labour force participation rate of women, in each country, is the only factor causing increasing earnings inequality among married couples. But it may be that marriages between higher earning men and higher earning women have contributed to an increase in earnings inequality over our data period. We return to this theme in the next section. Before doing so, we touch on some of the other numbers in sections B and D of Table 1.

In Canada, over the full data period median real earnings fell by about 8 percent for husbands and rose about 28 percent for wives. For men earnings peaked in 1979 but then fell quickly back towards their 1971 levels, and continued to fall to the end of the data period. For women earnings peaked in 1992 and have fallen slightly since then. If we focus on medians for the U.S. (because the means are sensitive to bottom and top-coding) the results are nearly identical. Male earnings peak in 1978, 1988 and 1999 while female earnings peak in 1989 and again in 1999. Using medians, female earnings as a fraction of male earnings rose from 43 percent in 1975 to 60

³ Note that we have not tried to convert one currency into the other. We could make the U.S. cutoff \$1,000 Canadian year by year, using some average exchange rate for each year, but we doubt this would have much impact on our interpretation of the data.

percent in 1996, in Canada; in the U.S., the corresponding numbers are 38 and 60 percent. Thus, even in married couples with wives in prime child-bearing years, there has been considerable convergence in spousal earnings over our data period. This fact complements the discussion in the next section.

3. A first look at the consequences of who marries whom

We have graphed the smoothed earnings density for every year in our data set. The four panels of Figures 2a (Canada) and 2b (U.S.) display results for 1975/6, 1981, 1991 and 1996. In each panel, the solid line is the smoothed density for actual earnings. To get some sense of how who marries whom might influence earnings inequality we add two more graphs of extreme possibilities for each year. The dotted line, labeled "Min", is the density with the highest earning men matched with the lowest earning women, and vice versa. For every year and for each country this yields an extraordinarily tight distribution that is very much unlike the actual earnings distribution. The other extreme we consider is matching the highest earning women with the highest earning men - this is the dashed-dotted line, labeled "Max" - and, of course, this density shows more inequality than the actual one for each year. But a couple of points are worth noting. First, for every year, the actual appears to be closer to the maximum-inequality line than the minimum-inequality line. Second, as one flips through the years the actual and the maximum lines change shape in a similar way - the mass at low earnings diminishes and the upper tails become fatter.

Finally, we added a fourth line - dashed - to each set of graphs. This is a line/curve for "random" matching of wives and husbands and is labeled "Random". We obtained this line in the following way: (1) match the earnings of husbands to the earnings of wives, sorted randomly; (2) calculate a smoothed earnings density for "family" earnings; (3) repeat this process n (=100) times; graph the average of the n smoothed earnings densities.⁴

⁴ Experimentation showed that the distribution obtained by averaging over 10 draws looked very much like the distribution averaged over 100 draws, and that increasing n beyond 100 made no perceptible difference.

Inspection of the graphs for 1975/6, Figures 2a-A and 2b-A, shows that random matching yields a distribution that is slightly less equal than the actual distribution. In Canada, mass is shifted from the middle of the distribution to the lower tail; in the U.S. some mass moves from the middle to each tail. We interpret these pictures as showing that, in the seventies, not only were high-earning men not matched with high-earning women, the reality was closer to the opposite. The wives of high-earning men were less likely to work and the wives who earned more than \$1,000 (1996) dollars in 1971 were more likely to be married to men with lower earnings, in either country. The actual and random-matching curves in the B panels of Figures 2a and 2b, for 1981, exhibit a similar relationship - the random-matching density is more unequal than the actual density. Contrast this with the graphs for Figures 2a and 2b, panels C and D, 1991 and 1996; now the random matching density is more *equal* than the actual. Here it would appear that, relative to "random" matching, in the actual distribution high-earning women do tend to be matched with high-earning men, and low-earning women are matched to low-earning men. The match of high to high and low to low is clearly not perfect, of course, there is some difference between the actual and the maximum inequality lines.

It seems safe to say that the labour supply decisions of husbands and wives are interdependent and that the interdependence changed in important ways between the seventies and the nineties. We look at this relationship more closely in the next section.

4. Changes in Wives' Earnings Conditional on Husbands' Earnings

Table 2-A, for Canada, displays the percentage of wives earning less than \$1000 (1996) by quintiles of husbands' earnings distribution, for each year.⁵ For most years the numbers have a U-shaped pattern - they are high for Q1, lower for the middle quintiles, and high again for Q5. This tendency is very strong for the early years and Q2 is the bottom of the U; for later years the U is more saucer-shaped and the bottom of the saucer occurs in Q3 and Q4. The incidence of low earnings among wives falls sharply at all quintiles of husbands' earnings but the fall is largest for Q4 and Q5; 52 percent to 17 percent for Q4 and 67 to 22 for Q5. Female labour force

⁵ This is a convenient way to distinguish between labour force participants and non-participants. We interpret a decrease in the fraction earnings less than \$1000 as increase in labour force participation.

participation rates have increased at all quintiles but particularly for women married to higher income men.

Table 2-B shows that very similar patterns are true of the U.S. The main differences are that, in each quintile, the percentages start at a lower value (in the seventies labour force participation rates were higher for wives in the U.S., as judged by our criterion), they fall more slowly, and by the end of the period are above the Canadian figures; moreover, the U.S. numbers trend upwards between 1996 and 1999.⁶

Table 3 takes the story a step further by displaying the median of wives' earnings by quintile of husbands' earnings. In Table 3-A, the highest median was in Q2 in 1971; after 1990 it was always in Q4 or Q5. In the U.S., prior to 1981, the highest median was always in Q1 or Q2. After 1980, it is always in Q3, Q4 or Q5 (ties excepted), with a increasing tendency to higher quintiles as we move to later years.

To summarize, in the seventies women married to men with low (but not very low) earnings were more likely to work than women married to men with higher earnings. In the U.S. and Canada, the earnings of women married to Q2-men helped make the distribution of family earnings more equal than it otherwise would have been. Over our data period labour force activity of women at all quintiles of husbands' earnings has increased but the increase is largest for those women married to upper quintile men. In the later stages of our data period wives' earnings contribute to an increase in family earnings inequality.

There is a literature on homogamy - the tendency of people with similar education levels to marry. Pencavel (1998) and Mancuso and Pencavel (1999) find that in the U.S. homogamy increased over our data period. In our research on both U.S. and Canadian data we find that the correlation between wives' and husbands' education has not risen and may have fallen slightly. Using Becker's terminology, with regard to education, 'likes' marry. For earnings there has been a change from 'unlikes' marrying towards 'likes' marrying. In addition, there is a strong positive correlation between age or educational attainment, and earnings, for both women and men. Conditional on age and educational attainment of both spouses how has the relationship between

⁶ It must be remembered, of course, that for most of our data period \$1,000 U.S. was a higher cut-off than \$1,000 Canadian in terms of purchasing power.

wife's earnings and husband's earnings changed over time? In the next section we present some evidence that this relationship has switched from strongly negative towards a positive relationship.

5. The changing relationship between wife's and husband's earnings

In earlier work (Bar-Or et al., 1995 and Burbidge et al., 1997) we showed how one could recode the education variables in the Canadian SCFs to obtain four, fairly consistent categories of educational attainment - elementary (denoted EL), high school (HS), some post-secondary (PS) and university degree (UN).⁷ One can also recode variables in the U.S. CPS to obtain similar categories.⁸ Table 4 presents the percentage distribution of women and men across these four education groups, for each country and year. Clearly, in both countries, there has been a strong migration into higher education categories over time, but the trend is much stronger in Canada than in the U.S. In addition, in both countries, wives' educational attainment has caught up and passed that of husbands'. In our data sets for Canada and the U.S., the percentage of women with university degrees exceeded the percentage of men with university degrees for the first time in 1996.

In the next table we show the mean of wife's education by education level of the husband. With the convention that elementary is coded as 1, post-secondary as 2, and so on, a higher mean for wife's education over time, as we observe for each of the four education categories for husbands, reflects the trend to higher educational attainment. The correlation between wife's and husband's education is, of course, positive in both countries but it appears to be stronger in the U.S. than in Canada. The means in the EL column are lower and the means in the UN column are higher in the U.S. than in Canada.

Table 6 is like Table 5 except that we replace husband's education by quintile of husband's earnings. If husband's earnings and education, and husband's and wife's education, are both positively correlated we would expect to see the mean of wife's education rise across the

⁷ We were forced to accept two major breaks in the data series, 1973-75 and 1988-89; see Bar-Or et al. for the details and see Table 4 of the present paper for the size of the breaks.

⁸ Details are available upon request.

quintiles of husband's earnings. This occurs without exception in our U.S. data - the mean of wife's educational attainment rises across the quintiles of husband's earnings for every year. In Canada, mean educational attainment for wives is about the same in the lower two quintiles of husband's earnings and always higher for the upper three quintiles.

Table 7 reports results for median regressions of wife's earnings on the age and educational attainment of both spouses, and husband's earnings, for 1975/76 and 1996. Conditional on wife's age, education levels for both spouses and husband's earnings, women married to older men have lower earnings than those married to younger men. The strength of this effect appears to have weakened over the data period, particularly in the U.S. Since we have selected men aged 25 to 34, and mean age is roughly constant, one could interpret this coefficient as measuring a cohort effect. Older men in any particular year were born earlier and such men may have been more likely to marry women who worked at home.

Inspection of Table 7 reveals that, in the seventies, wives' earnings were not much affected by their ages. In the nineties, as one would expect, older women had higher earnings, again conditional on educational attainment and the other variables in the regressions. In the seventies women married to men with more than an elementary education tended to earn more than women married to men with an elementary education, conditional on husband's earnings. The nineties' regressions show this effect strengthened considerably. Wife's earnings are positively related to her education level. Finally, and most importantly for this paper, the coefficient on husband's earnings was negative and several multiples of its standard error in the seventies. In Canada in 1975 another dollar of husband's earnings reduced wife's earnings by 3.6 cents; the corresponding number for the U.S. was 6.1 cents in 1976. By 1996 the number for Canada had switched signs, was statistically significant, and stood at 4.6 cents; the number for the U.S. was minus 1 cent and its coefficient was not significantly different from zero.

6. Summary and conclusions

No doubt many factors have influenced the recent trend to increasing earnings inequality amongst young married couples in Canada and the U.S. For example, the inequality measures in Table 1 seem quite sensitive to the business cycle. As Becker noted, in the seventies women married to higher income men were less likely to work for pay, and thus women's earnings tended to make the distribution of married-couple earnings more equal. Over the last two decades the relationship between the earnings of wives and husbands has changed. By the midnineties, controlling for age and educational attainment of both spouses, another dollar of husband's earnings was much less likely to be associated with a reduction in wife's earnings; in Canada, it was associated with a significant *increase* in wife's earnings. We conclude that the change in the relationship between spousal earnings has contributed to an increase in earnings inequality in both Canada and the U.S.

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				Pane	el A				
						ings of Mar	ried Coup	le	
	Number Hu	sband's	Wife's			Var. of			
Year	of obs.	Age	Age	Mean	Median	log	Gini	JMP	RQ
71	4057	29	27	42105	40276	122	103	100	101
73	4425	29	27	45678	43582	92	99	96	98
75	4846	30	27	47734	46155	104	100	99	98
77	6256	30	28	49483	48105	118	100	105	103
79	6379	30	28	50783	49127	109	100	100	100
81	6152	30	28	49981	48060	100	100	100	100
82	6023	30	28	47300	45718	141	110	116	112
84	5621	30	28	47702	44944	138	112	120	119
85	5606	30	28	48735	46938	122	108	112	109
86	4968	30	28	49731	47458	134	110	114	113
87	6495	30	28	50020	47298	136	113	113	113
88	5513	30	28	51432	49258	118	106	109	107
89	5885	30	28	50742	48307	120	108	111	111
90	6332	30	29	50710	48642	113	107	110	108
91	5481	30	29	48292	46230	146	116	126	119
92	4758	30	29	49788	47247	136	118	126	123
93	4556	30	29	49123	46163	166	120	132	126
94	4560	30	29	50159	47929	148	115	122	118
95	3650	30	29	48758	45939	170	117	124	120
96	3559	30	29	49211	46202	153	118	125	123

Table 1: Descriptive Statistics for Data Drawn from Canadian SCF CensusFamily Files: Married Couples, Husbands Aged 25 to 34

				Pan	el B			
		Husba	ands			Wiv	es	
_	Ea	rnings > ()	Percent	Ea	rnings > ()	Percent
_	Number			with earn	Number			with earn
Year	of obs.	Mean	Median	< \$1000	of obs.	Mean	Median	< \$1000
71	4028	34601	33469	1	1937	15430	14599	53
73	4395	37403	35870	1	2257	16059	15185	50
75	4809	37943	36743	1	2747	16931	15974	43
77	6197	38932	38490	2	3732	17559	15983	41
79	6313	39445	38933	2	4003	17811	16280	37
81	6083	37623	36503	2	4209	18227	16548	33
82	5926	34817	34070	2	4222	17967	16382	31
84	5543	34546	33988	3	4033	18467	16360	28
85	5519	35331	33888	2	4201	17989	16021	26
86	4874	35465	34274	2	3713	19034	16920	24
87	6408	35717	33899	2	4979	18454	16035	23
88	5416	36135	35067	2	4439	19014	17469	20
89	5805	35348	34059	2	4791	19062	17719	19
90	6225	35220	33808	2	5168	19317	17652	19
91	5354	33164	32254	4	4449	19610	17202	21
92	4649	33662	31770	4	3863	20536	18779	19
93	4447	32950	31208	3	3633	20606	17965	21
94	4452	34600	32474	3	3726	20153	18624	20
95	3565	33166	31746	3	2968	20097	17967	21
96	3489	33134	30861	3	2903	20267	18498	20

Table 1 continued: Canadian Data for Husbands and Wives

				Pane	el C				
					Earni	ings of Mar	ried Coup	le	
	Number Hu	sband's	Wife's			Var. of			
Year	of obs.	Age	Age	Mean	Median	log	Gini	JMP	RQ
76	6824	30	28	41094	39025	91	100	99	101
77	8256	30	28	42024	39613	94	99	98	100
78	7895	30	28	42674	40625	83	99	96	98
79	7539	30	28	41922	39981	90	98	96	96
80	8579	30	28	40875	39012	94	98	95	97
81	8568	30	28	39092	37456	100	100	100	100
82	7281	30	28	39796	37509	94	104	104	106
83	7167	30	28	40142	37807	124	111	112	111
84	7083	30	28	40329	37753	115	112	114	115
85	6955	30	28	42313	39478	108	110	112	112
86	6698	30	28	44209	41486	122	113	115	115
87	6609	30	29	44908	41435	116	115	114	116
88	6334	30	29	45140	41778	97	111	114	115
88B	6790	30	29	45227	42132	103	112	116	115
89	6240	30	29	45197	41756	112	114	115	117
90	6526	30	29	44758	40816	100	114	114	118
91	6297	30	29	44313	40319	113	116	117	121
92	6040	30	29	44424	40819	134	119	123	126
93	5904	30	29	44363	40885	122	120	124	123
94	5308	30	29	43927	39701	123	123	127	129
95	5214	30	29	44484	40152	129	122	121	126
96	4291	30	29	46210	40696	133	126	123	129
97	4213	30	29	46756	41058	129	126	122	126
98	4124	30	29	49582	43316	141	129	123	128
99	3918	30	29	50972	44264	146	132	126	128

Table 1 continued: Descriptive Statistics for Data Drawn fromthe U.S. CPS: Married Couples, Husbands Aged 25 to 34

				Pan	el D			
_		Husba	ands			Wiv	es	
_	Ea	rnings > ()	Percent	Ea	rnings > ()	Percen
_	Number			with earn	Number			with earn
Year	of obs.	Mean	Median	< \$1000	of obs.	Mean	Median	< \$1000
76	6742	33429	31724	2	4073	13445	11992	45
77	8169	33740	31842	2	5162	13829	12606	42
78	7807	34034	32487	1	5128	13862	12032	40
79	7471	33200	31945	1	5061	13478	12301	39
80	8492	32108	30466	2	5957	13111	11425	36
81	8454	30301	29322	2	5981	13263	12083	36
82	7186	30582	29266	2	5111	13708	12616	36
83	7030	30765	28355	3	5054	14309	12602	35
84	6947	30393	28416	3	5035	14943	13591	34
85	6850	31637	29164	2	5110	15329	14192	33
86	6606	33018	30063	2	4935	15960	14316	32
87	6516	33232	30127	2	4987	16162	13812	30
88	6242	33260	30505	2	4824	16396	14589	29
88B	6681	33047	29842	2	5219	16720	14589	28
89	6144	32730	30368	2	4853	16949	15184	28
90	6425	32069	28811	2	5134	16847	14406	26
91	6198	31448	28800	2	4893	17275	14976	26
92	5941	31011	27958	2	4792	17534	15034	25
93	5778	30782	27145	3	4634	18285	16287	26
94	5172	30715	26468	3	4197	17970	15881	25
95	5103	30553	26562	3	4126	18480	15950	25
96	4229	32025	27000	2	3400	18715	16000	25
97	4141	32170	27372	2	3313	19508	16851	25
98	4035	34233	28877	3	3264	20634	17326	2
99	3831	35565	30137	3	3029	21153	17894	26

Table 1 concluded: U.S. Data for Husbands and Wives

Notes:

1. Canadian earnings statisitics are in 1996 Cdn dollars;

U.S. Statistics are in 1996 U.S. Dollars.

2. Inequality measures are indexed to 1973 = 100.

3. JMP stands for Juhn, Murphy and Pierce's (JPE, 1993) inequality measure: In(Q90/Q10).

4. RQ stands for relative quantile: (Q90-Q10)/Q50.

		Panel A			
Year	Q1	Q2	Q3	Q4	Q5
1971	52	45	48	52	67
1973	47	43	46	51	64
1975	39	37	42	44	56
1977	41	36	39	41	48
1979	35	32	33	39	45
1981	29	28	34	31	42
1982	28	31	30	29	38
1984	25	26	27	29	34
1985	24	22	24	28	32
1986	23	22	23	23	28
1987	23	22	23	22	25
1988	19	17	19	21	25
1989	20	16	16	19	22
1990	19	16	18	16	26
1991	21	20	18	19	25
1992	17	20	19	17	23
1993	23	20	18	20	22
1994	21	20	18	21	23
1995	26	16	21	17	24
1996	22	20	18	17	22

Table 2: Percentage of Wives Earning Less Than 1,000 1996Cdn. Dollars by Quintile of Husbands' Earnings Distribution:Canadian SCF

		Panel B			
Year	Q1	Q2	Q3	Q4	Q5
1976	38	41	41	46	59
1977	37	35	38	47	55
1978	35	34	38	43	54
1979	34	31	34	41	52
1980	33	30	32	38	49
1981	33	32	30	38	48
1982	33	33	31	38	44
1983	34	31	31	36	45
1984	33	30	31	34	43
1985	34	28	27	35	40
1986	34	28	28	32	39
1987	30	27	25	30	39
1988	31	25	24	29	39
1988B	30	23	23	28	38
1989	31	25	24	25	34
1990	27	22	23	26	32
1991	28	23	23	25	33
1992	28	24	18	24	29
1993	29	23	22	24	31
1994	29	24	22	22	29
1995	29	26	20	21	26
1996	32	24	21	21	28
1997	32	27	21	19	28
1998	30	24	18	22	30
1999	33	25	21	22	31

Table 2 concluded: Percentage of Wives Earning Less Than 1,000 1996 U.S. dollars, by Quintile of Husbands' Earnings Distribution: U.S. CPS

		Panel A			
Year	Q1	Q2	Q3	Q4	Q5
1971	425	2905	1700	388	0
1973	1884	4035	2490	942	0
1975	4639	5884	5856	3070	0
1977	4479	7381	6339	4344	1926
1979	6835	9604	9722	5759	2607
1981	8670	11237	8467	8925	4737
1982	7286	9066	10500	11677	6109
1984	9557	11134	10282	10282	8914
1985	8574	12268	12708	10722	8689
1986	9238	13560	12372	12263	13560
1987	8522	11415	11479	12994	13516
1988	9987	13459	15861	14986	14086
1989	10206	14065	14383	14626	15757
1990	10910	13621	15924	14427	15891
1991	9886	11653	14489	16127	13873
1992	12369	11478	16944	16667	17762
1993	8816	12496	15929	17471	15604
1994	10042	12459	15814	16351	16250
1995	8608	13217	14228	16732	15641
1996	10000	12672	16221	19964	14242

Table 3: Median of Wives' Earnings in 1996 Cdn. Dollars by Quintile of Husbands' Earnings Distribution: Canadian SCF

		Panel B			
Year	Q1	Q2	Q3	Q4	Q5
1976	4263	4136	3131	2002	0
1977	5178	6059	5178	1686	33
1978	5977	7219	4813	3128	241
1979	6143	6932	6483	3674	519
1980	5712	7834	7119	4760	1333
1981	6041	6904	8388	5523	1381
1982	6341	8130	8130	5378	2439
1983	6301	7877	8262	5975	3151
1984	6449	8616	9061	6493	3115
1985	6273	9478	10599	7291	5306
1986	5353	9305	10021	8589	5795
1987	7320	9255	9944	10324	5525
1988	6897	10610	11937	11273	7295
1988B	6897	10610	13263	11028	6631
1989	6959	10654	11388	12653	9490
1990	7203	12005	12005	12005	11404
1991	7154	10368	12750	12672	11520
1992	7828	10076	13420	12301	11183
1993	7058	10885	13832	14116	10858
1994	7411	9691	13028	13763	13085
1995	7380	10295	13590	14413	15443
1996	7200	11000	15000	14000	14164
1997	7821	10634	14664	16619	13686
1998	8662	11551	15401	17326	14439
1999	7534	11301	16010	16201	14127

Table 3 concluded: Median of Wives' Earnings in 1996 U.S. dollars by Quintile of Husbands' Earnings Distribution : U.S. CPS

				CAN	ADA						UNI	TED	STAT	ES		
_		WOM	EN			ME	N			WOM	EN			ME	N	
Year	EL	HS	PS	UN	EL	HS	PS	UN	EL	HS	PS	UN	EL	HS	PS	UN
1971	51	26	19	5	52	19	17	11								
1973	48	25	21	6	50	20	19	12								
1975	31	34	26	8	35	25	26	15								
1976									18	48	17	17	17	38	20	25
1977	28	39	25	8	33	29	24	14	16	46	19	18	16	37	21	26
1978									16	46	20	18	15	37	22	26
1979	25	42	24	9	29	35	22	14	15	46	21	19	14	36	23	27
1980									14	47	21	19	13	38	23	27
1981	21	45	24	10	26	36	24	14	13	47	21	18	12	39	22	26
1982	20	45	26	10	26	36	25	14	13	48	21	18	12	40	22	26
1983									12	47	21	20	12	40	22	26
1984	17	45	27	11	22	38	26	14	13	46	22	20	12	41	22	25
1985	16	45	27	11	22	37	27	13	12	46	22	19	12	41	22	25
1986	17	45	27	11	22	40	26	12	11	46	22	21	12	41	22	26
1987	17	44	28	10	24	38	26	12	10	46	22	21	11	42	21	25
1988	16	43	30	11	22	38	28	12	10	46	22	21	12	42	20	25
1988B									11	46	22	21	12	42	20	25
1989	16	48	27	10	21	47	21	11	10	46	21	22	12	43	20	25
1990	13	50	27	10	19	49	21	10	11	44	23	22	13	42	20	25
1991	13	49	28	11	20	48	21	11	11	43	23	23	13	43	20	24
1992	12	47	29	12	17	48	22	13	10	41	27	23	10	41	25	24
1993	12	43	31	13	17	46	24	13	9	37	29	24	10	38	26	25
1994	9	40	34	16	14	44	26	16	8	36	31	24	10	37	27	26
1995	9	40	35	15	14	44	28	15	10	34	31	26	11	36	27	26
1996	8	38	36	18	13	43	30	15	10	33	29	28	11	34	28	27
1997									9	33	30	28	10	34	28	27
1998									9	32	30	29	10	35	27	28
1999									10	30	30	30	10	33	28	28

Table 4: Percentage Distribution Across Education Categories:for Married Couples in the Canadian SCF and the American CPS

		CANAI	DA			U.S.		
	Hu	sband's E	ducation		Hu	sband's E	ducation	
Year	EL	HS	PS	UN	EL	HS	PS	UN
1971	1.37	1.80	2.13	3.03				
1973	1.39	1.87	2.26	3.03				
1975	1.54	2.01	2.46	3.11				
1976					1.51	2.03	2.50	3.24
1977	1.58	1.97	2.42	3.06	1.57	2.03	2.51	3.28
1978					1.57	2.04	2.53	3.25
1979	1.60	2.02	2.48	3.20	1.56	2.05	2.55	3.26
1980					1.58	2.05	2.55	3.27
1981	1.66	2.10	2.53	3.19	1.59	2.10	2.59	3.23
1982	1.68	2.10	2.57	3.30	1.56	2.11	2.57	3.28
1983					1.56	2.13	2.61	3.32
1984	1.77	2.16	2.64	3.29	1.56	2.13	2.64	3.35
1985	1.79	2.17	2.62	3.29	1.60	2.14	2.67	3.32
1986	1.79	2.20	2.68	3.28	1.60	2.14	2.70	3.36
1987	1.75	2.20	2.64	3.36	1.63	2.18	2.68	3.41
1988	1.83	2.21	2.70	3.29	1.62	2.19	2.71	3.37
1988b					1.62	2.20	2.71	3.36
1989	1.78	2.23	2.59	3.34	1.62	2.20	2.72	3.39
1990	1.79	2.23	2.65	3.30	1.59	2.23	2.78	3.47
1991	1.79	2.29	2.63	3.38	1.58	2.24	2.79	3.48
1992	1.91	2.33	2.78	3.41	1.63	2.24	2.76	3.49
1993	1.93	2.33	2.75	3.43	1.67	2.29	2.80	3.51
1994	1.90	2.37	2.78	3.44	1.70	2.33	2.82	3.50
1995	1.97	2.39	2.79	3.43	1.64	2.33	2.82	3.51
1996	2.05	2.45	2.78	3.47	1.60	2.31	2.90	3.59
1997		-	-	-	1.71	2.32	2.87	3.61
1998					1.64	2.40	2.87	3.61
1999					1.63	2.37	2.90	3.60

Table 5: Mean of Wife's Education by Education Level of Husband,for Married Couples in the Canadian SCF and the American CPS

		C/	ANADA			U.S.					
		Husban	d's Earn	ings			Husban	d's Earni	ings		
Year	Q1	Q2	Q3	Q4	Q5	Q1	Q2	Q3	Q4	Q5	
1971	1.65	1.60	1.69	1.91	2.12						
1973	1.69	1.68	1.85	1.96	2.15						
1975	2.08	2.03	2.08	2.20	2.45						
1976						2.06	2.20	2.40	2.48	2.65	
1977	2.00	2.03	2.13	2.21	2.34	2.14	2.24	2.41	2.48	2.73	
1978						2.18	2.25	2.38	2.53	2.70	
1979	2.05	2.12	2.17	2.25	2.47	2.20	2.32	2.44	2.49	2.67	
1980						2.14	2.34	2.47	2.49	2.69	
1981	2.14	2.15	2.26	2.41	2.47	2.21	2.30	2.48	2.52	2.69	
1982	2.13	2.22	2.29	2.37	2.62	2.19	2.28	2.47	2.55	2.77	
1983						2.23	2.29	2.49	2.59	2.81	
1984	2.28	2.28	2.32	2.48	2.63	2.20	2.27	2.47	2.61	2.86	
1985	2.30	2.29	2.31	2.46	2.64	2.21	2.29	2.47	2.58	2.83	
1986	2.27	2.28	2.34	2.49	2.77	2.17	2.32	2.46	2.63	2.92	
1987	2.29	2.34	2.37	2.47	2.69	2.17	2.33	2.48	2.70	2.96	
1988	2.26	2.37	2.40	2.54	2.67	2.19	2.33	2.52	2.67	2.93	
1988b						2.18	2.35	2.51	2.66	2.95	
1989	2.27	2.23	2.38	2.46	2.61	2.17	2.31	2.53	2.66	2.97	
1990	2.27	2.33	2.44	2.46	2.53	2.18	2.33	2.53	2.67	3.02	
1991	2.31	2.37	2.39	2.56	2.66	2.18	2.34	2.53	2.71	3.07	
1992	2.42	2.42	2.51	2.65	2.83	2.25	2.37	2.59	2.73	3.05	
1993	2.41	2.38	2.51	2.66	2.89	2.31	2.42	2.70	2.82	3.12	
1994	2.44	2.49	2.62	2.72	2.84	2.32	2.46	2.64	2.84	3.17	
1995	2.49	2.62	2.54	2.74	2.81	2.33	2.49	2.65	2.84	3.15	
1996	2.61	2.60	2.68	2.75	2.84	2.31	2.45	2.75	2.91	3.25	
1997						2.35	2.48	2.80	2.97	3.21	
1998						2.37	2.51	2.79	2.97	3.22	
1999						2.23	2.54	2.79	3.07	3.30	

Table 6: Mean of Wife's Education by Quintile of Husband's Earnings,for Married Couples in the Canadian SCF and the American CPS

		CAN	ADA			U.\$	S.					
	197	5	199	6	197	6	199	6				
No. obs.	484	6	355	9	682	4	429	1				
Variable	Coeff	Std err	Coeff	Std err	Coeff	Std err	Coeff	Std err				
CONST	8333	1240	-4275	3215	7419	1059	-4106	2414				
		AGE										
HUSB.	-245	48	-248	121	-156	41	-33	101				
WIFE	22	33	434	77	-16	24	221	60				
			Husband	d's Educa	tion (EL On	nitted)						
HS	998	282	2240	844	364	189	2816	706				
PS	210	285	4327	1118	275	273	3758	820				
UN	853	609	6714	1355	995	411	3221	1136				
			Wife's	Educatio	n (EL Omit	ted)						
HS	1914	269	4784	758	1472	192	4570	737				
PS	7562	755	8651	964	3445	617	8536	819				
UN	17442	1394	16493	1243	11078	904	18174	1004				
			ŀ	lusband's	Earnings							
Earn.	-0.036	0.006	0.046	0.019	-0.061	0.007	-0.010	0.017				

Table 7: Median Regression Results for Wife's Earnings









Figure 1b-A: U.S. Earnings Annual Earnings X 10⁻⁵

Figure 1b-B: U.S. Earnings Annual Earnings X 10⁻⁵

Figure 1b-C: U.S. Earnings 0.0 0.2 0.4 0.6 0.8 1.0 Annual Earnings X 10⁻⁵



Figure 2a-A: Cdn. Earnings for 1975



Figure 2a-B: Cdn. Earnings for 1981



Figure 2a-C: Cdn. Barnings for 1991



Figure 2a-D: Cdn. Earnings for 1996



Figure 2b-A: U.S. Earnings for 1976



Figure 2b-B: U.S. Earnings for 1981



Figure 2b-C: U.S. Earnings for 1991



Figure 2b-D: U.S. Earnings for 1996

