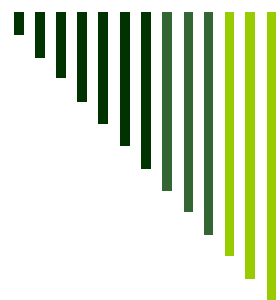


Economic Indicators and Marriage: Exploring Their Relationships Using the Survey of Labour and Income Dynamics

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Canadian Families Under Pressure?
Conference of the Canadian Research Data Network
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Topics

- Some theories and a framework for analysis
 - Brief discussion of results using GSS2001
 - Data and Methods
 - Survey of Labour and Income Dynamics
 - Limitations and analytic strategy
 - Results of Analysis
 - Conclusion: research plans and implications of findings
-



Some economic-related theories on timing of marriage

- Economic independence hypothesis – ‘the gain from marriage is reduced by a rise in the **earnings** and **labour force participation** of women and by a fall in fertility because a sexual division of labour becomes less advantageous’ (Becker 1981: 248)

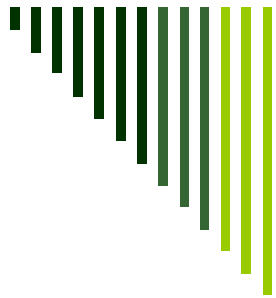
 - Career entry hypothesis – “the increasingly achieved nature of women’s socio-economic characteristics introduces some of the same delaying factors into marriage formation that has traditionally existed for men” (Oppenheimer and Lew 1995: 116)
 - Education -- duration spent in education delays entry into marriage for both men and women
 - Labour force participation – “provides greater access to more attractive marriage markets, increase a young woman’s desirability as a potential mate, or facilitate an earlier marriage than would be possible if it were based on the young man’s earning alone (p. 118)
 - Earnings -- “women in better-earnings position occupy a more attractive marriage-market position” and a woman’s “higher earnings make it possible to marry while a young man’s earnings positions is still somewhat shaky” (p.120).
-



A Framework of Analysis

1st Demographic Trans. 2nd Demographic Trans.

	Complementary	Shared
Economic Independence	Earnings and LFP Men – positive Women – negative	
Economic Inter-dependence		Earnings and LFP Men – positive Women – positive
Career entry	Education (duration) Men – negative Women -- negative	Education (duration) Men – negative Women -- negative



Results from 2001 General Social Survey

Hazards Coefficients of Entry into Parenthood

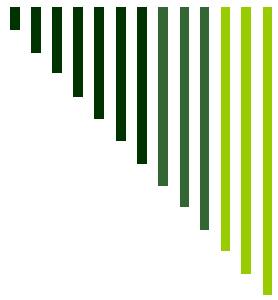
Men, 1961-80 Birth Cohort

	Model 1	Model 2	Model 3
Respondent's Education			
Some High School ®			
High School Graduate	-0.244 ***	-0.228 ***	-0.206 ***
Some College	-0.446 ***	-0.388 ***	-0.204 **
College/University Grad	-0.593 ***	-0.582 ***	-0.389 ***
Personal Income			
Less than \$20,000 ®			
\$20,000 - \$49,999	0.428 ***	0.413 ***	-0.009
\$50,000 or higher	0.637 ***	0.547 ***	-0.011
Missing	0.488 ***	0.503 ***	-0.001

Women, 1961-80 Birth Cohort

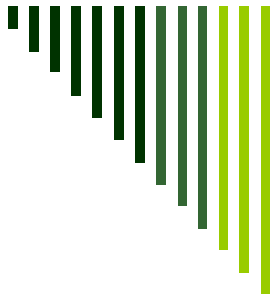
	Model 1	Model 2	Model 3
Respondent's Education			
Some High School ®			
High School Graduate	-0.546 ***	-0.651 ***	-0.755 ***
Some College	-0.852 ***	-0.942 ***	-0.962 ***
College/University Grad	-0.944 ***	-1.088 ***	-1.129 ***
Personal Income			
Less than \$20,000 ®			
\$20,000 - \$49,999	-0.507 ***	-0.366 ***	-0.347 ***
\$50,000 or higher	-0.978 ***	-0.763 ***	-0.740 ***
Missing	-0.307 ***	-0.244 ***	-0.270 ***

Limitation: Cross-sectional data, 20-year birth cohort



Survey of Labour and Income Dynamics

- Longitudinal
 - Panel 1 – 1993, 1994, ... 1998
 - Limitations:
 - Attrition – high for young, never married men and women
 - Right-censoring – use of survival analysis
 - Left-censoring – use of an analytical strategy
-



Use of 3-year Age Groups, and Additional hypothesis

**Table 1: Percentage Never Married in 1992
by Sex and Age-Group**

Men	17-19	20-22	23-25	Total
Total N	829	753	802	2384
%	98.7	89.2	64.5	84.2
Single	818	672	517	2007

Women	15-17	18-20	21-23	Total
N	834	745	804	2383
%	99.2	89.1	61.9	83.5
Single	827	664	498	1989

**Table 2: Percentage Married by 1998
Among the Never Married in 1992
By Sex and Age Group**

	Age Group in 1992			
Men	17-19	20-22	23-25	Total
Weighted N	527	411	324	1262
%	10.6	26.0	39.2	23.0

Women	15-17	18-20	21-23	Total
Weighted N	469	462	404	1335
%	8.1	26.2	36.4	22.9

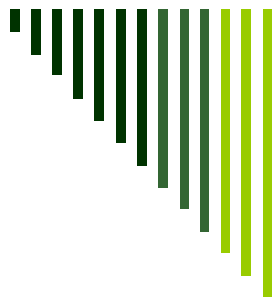
Additional Hypothesis:

Early Age	“Right Age”	Late Age
Career-entry	Economic Interdependence (strong)	Economic Interdependence (weak)
<input type="checkbox"/> Education	<input type="checkbox"/> Income <input type="checkbox"/> Labour Force Part.	<input type="checkbox"/> Income <input type="checkbox"/> Labour Force Part



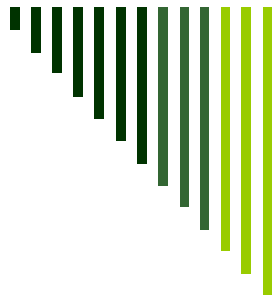
Methods and Variables

- Proportional Hazards Model (using STATA)
 - Dependent variable – Age at marriage
 - Independent variables:
 - Career-entry
 - Father's education (time invariant)
 - Respondent's education (time-varying)
 - Economic Inter-dependence
 - Wages and Salaries (time-varying)
 - Labour Force Status (time-varying)
 - Others
 - Region (time-varying)
-



Relative Risks of Marriage (Hazard ratios and p values) Father's and Respondent's Education

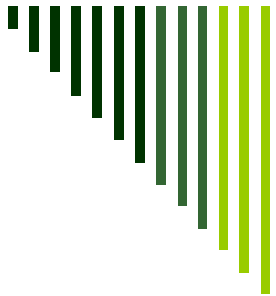
	17-19		20-22		23-25		
	Hazard Ratio	$p > z $	Hazard Ratio	$p > z $	Hazard Ratio	$p > z $	
Men							
Father's Education (ti)							
Elementary ®							
Some HS & HS Graduate	0.58	0.27	1.09	0.85	1.03	0.93	
Post-Secondary	0.33	0.05	1.35	0.47	0.96	0.93	
Respondent's Education (tvc)							
Less than High School Grad ®							
Graduated High School	0.97	0.18	1.01	0.66	1.03	0.14	
Non-University Post Sec.	0.98	0.35	1.01	0.53	1.02	0.23	
University Degree	1.00	0.97	1.01	0.54	1.02	0.29	
Women							
Father's Education (ti)							
Elementary ®							
Some HS & HS Graduate	0.45	0.07	1.49	0.25	1.13	0.74	
Post-Secondary	0.43	0.13	0.99	0.98	1.81	0.13	
Respondent's Education (tvc)							
Less than High School Grad ®							
Graduated High School	0.96	0.08	0.98	0.28	1.03	0.35	
Non-University Post Sec.	0.95	0.06	0.98	0.28	1.03	0.23	
University Degree	0.93	0.15	1.00	0.98	1.01	0.62	



Relative Risks of Marriage (Hazard ratios and p values) Father's Education and Wages and Salaries

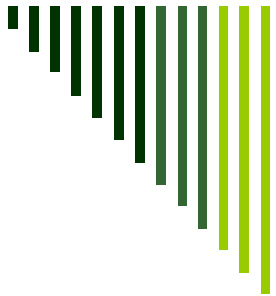
	17-19		20-22		23-25		
	Hazard Ratio	$p > z $	Hazard Ratio	$p > z $	Hazard Ratio	$p > z $	
Father's Education (ti)							
Elementary ®							Men
Some HS & HS Graduate	0.53	0.23	0.99	0.98	1.07	0.85	
Post-Secondary	0.32	0.03	1.22	0.63	0.84	0.69	
Wages and Salaries (\$1000) (tvc)	1.0010	0.06	1.0014	0.00	1.0005	0.04	

	15-17		18-20		21-23				
	Hazard Ratio	$p > z $	Hazard Ratio	$p > z $	Hazard Ratio	$p > z $			
Father's Education (ti)									
Elementary ®							Women		
Some HS & HS Graduate			0.33	0.02	1.67	0.19		1.02	0.96
Post-Secondary			0.29	0.03	1.15	0.73		1.58	0.22
Wages and Salaries (\$1000) (tvc)			1.0002	0.86	1.0011	0.03	1.0002	0.62	



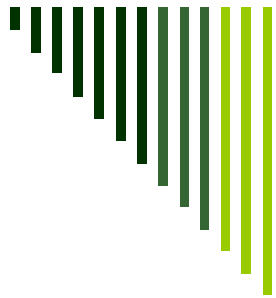
Relative Risks of Marriage (Hazard ratios and p values) Father's Education and Labour Force Status

		17-19		20-22		23-25			
		Hazard Ratio	$p > z $	Hazard Ratio	$p > z $	Hazard Ratio	$p > z $		
Men									
Father's Education (ti)									
	Elementary ®								
	Some HS & HS Graduate	0.50	0.21	0.98	0.96	1.06	0.85		
	Post-Secondary	0.29	0.02	1.28	0.57	0.76	0.51		
Labour Force Status (tvc)									
	Employed All Year ®								
	Employed Part-Year	1.00	0.86	0.98	0.21	1.00	0.82		
	Not Employed	0.93	0.05	0.94	0.03	0.94	0.01		
Women									
Father's Education (ti)									
	Elementary ®								
	Some HS & HS Graduate			0.30	0.01	1.43	0.33	0.90	0.78
	Post-Secondary			0.27	0.02	1.00	0.99	1.41	0.36
Labour Force Status (tvc)									
	Employed All Year ®								
	Employed Part-Year			1.02	0.29	0.99	0.17	1.00	0.80
	Not Employed			0.96	0.15	0.96	0.05	0.96	0.05



Relative Risks of Marriage (Hazard ratios and p values) Full Model -- Men

	17-19		20-22		23-25	
	Hazard Ratio	p> z	Hazard Ratio	p> z	Hazard Ratio	p> z
Father's Education (ti)						
Elementary ®						
Some HS & HS Graduate	0.57	0.25	0.88	0.77	1.09	0.80
Post-Secondary	0.36	0.04	1.08	0.86	0.68	0.39
Respondent's Education (tvc)						
Less than High School Grad ®						
Graduated High School	0.96	0.03	1.00	1.00	1.02	0.31
Non-University Post Sec.	0.98	0.30	1.01	0.82	1.01	0.68
University Degree	0.98	0.70	1.00	0.97	1.00	0.83
Wages and Salaries (\$1000) (tvc)	1.0009	0.10	1.0013	0.00	1.0007	0.04
Labour Force Status (tvc)						
Employed All Year ®						
Employed Part-Year	1.02	0.37	1.00	0.96	1.02	0.17
Not Employed	0.95	0.19	0.98	0.52	0.97	0.24
Region (tvc)						
Atlantic ®						
Quebec	0.96	0.15	0.95	0.03	0.95	0.01
Ontario	1.05	0.03	0.98	0.25	1.00	0.81
Prairie	1.02	0.28	0.98	0.19	0.99	0.55
British Columbia	1.03	0.40	1.00	0.96	0.94	0.02



Relative Risks of Marriage (Hazard ratios and p values) Full Model -- Women

	15-17		18-20		21-23	
	Hazard Ratio	$p > z $	Hazard Ratio	$p > z $	Hazard Ratio	$p > z $
Father's Education (ti)						
Elementary ®						
Some HS & HS Graduate	0.36	0.03	1.23	0.56	0.86	0.66
Post-Secondary	0.35	0.06	0.88	0.76	1.25	0.56
Respondent's Education (tvc)						
Less than High School Grad ®						
Graduated High School	0.95	0.04	0.97	0.06	1.01	0.62
Non-University Post Sec.	0.95	0.09	0.97	0.08	1.02	0.38
University Degree	0.91	0.09	0.99	0.46	1.01	0.78
Wages and Salaries (\$1000) (tvc)	0.9998	0.91	1.0012	0.01	0.9998	0.67
Labour Force Status (tvc)						
Employed All Year ®						
Employed Part-Year	1.01	0.54	1.00	0.70	1.00	0.86
Not Employed	0.95	0.11	0.97	0.14	0.97	0.13
Region (tvc)						
Atlantic ®						
Quebec	0.96	0.15	0.95	0.00	0.96	0.08
Ontario	1.03	0.16	0.99	0.61	1.00	0.95
Prairie	1.03	0.17	0.99	0.33	1.01	0.41
British Columbia	1.02	0.49	0.97	0.11	1.02	0.25



Conclusion 1: Research Plans

- Panel 2 of SLID
 - Cohabitation
 - A theoretical framework different from marriage
 - Dates of cohabitation not asked but, marital status at each year is available
 - Use logistic regression or similar procedure
 - Relation between cohabitation and marriage
 - Advantage of GSS over SLID – availability of information about culture and values, and more information about parents
-



Conclusion 2: Some thoughts on implications of findings

- Two forces behind polarization
 - Career-entry hypothesis -- differences in human, social, and financial investment on children
 - Economic inter-dependence hypothesis – assortative mating process pairs men and women with potentials for high earnings
 - Interventions that would help ...
 - reduce the effect of disparities in parental resources
 - increase opportunities for employment of **both** young men and women
 - change perception that family and work are incompatible
 - interventions that facilitate the balancing of family and work life such as those related to family benefits and the provision of child-care services
-