## The Family, Community, and Health in the Context of Economic Change

A joint project of the<br>Population Studies Centre and the Aging \& Health Research Centre University of Western Ontario

Funded by Health Canada, Applied Research and Analysis Directorate

Zenaida R. Ravanera

Health and the Economy Research Roundtable II
28 February 2005, Ottawa

## Four Research Papers

- Family Structure, Gender, and Health in the Context of the Life Course William R. Avison and Lorraine Davies
- Family Structures and Children's Behavioral Problems: A Latent Growth Curve Analysis Don Kerr and Joseph Michalski
$\square$ Stress and Adult Health: Impact of Time Spent in Paid and Unpaid Work, and Its Division in Families Roderic Beaujot and Robert Andersen
- Young Canadians’ Timing of and Trajectory to Parenthood: Social Status and Gender Differentials Zenaida R. Ravanera and Fernando Rajulton


## Topics of Discussion

$\square$ For each of the four papers:

- Subject of Research
- Data and Methods
- Major Findings


## Family Structure, Gender, and Health in the Context of the Life Course (1): Subject of Study

- Mental Health
- Psychological distress - 6-item index with scores ranging from 0 to 24
- Alcohol consumption - number of times in the past year when respondent consumed more than 5 drinks in any one occasion
- Main explanatory variables
- Family structure -
- Two-parent families
- Single-parent families
- Gender
- Age groups

Family Structure, Gender, and Health in the Context of the Life Course (2): Data \& Methods

- Data: 1994 National Population Health Survey
- Parents ages 20-64 living with at least one child
- 5598 respondents
- $44 \%$ mothers in two-parent families
- $14 \%$ single mothers

ㅁ $40 \%$ fathers in two-parent families

- $2 \%$ single fathers
- Methods:
- Multiple regression analysis
- Differences of Means


## Table 1:Regression Coefficients of Psychological Distress on Family Structure, Gender, and Age

|  | I | II | III | IV |
| :--- | :---: | :---: | :---: | :---: |
| Variable |  |  |  |  |
| Family Structure | $\mathbf{1 . 7 8}$ | $\mathbf{1 . 5 6}$ | -0.32 | -0.47 |
| Gender |  | $\mathbf{0 . 6 6}$ | $\mathbf{0 . 5 7}$ | $\mathbf{0 . 4 9}$ |
| Family Structure by |  |  |  |  |
| $\quad$ Gender |  |  | $\mathbf{1 . 0 2}$ | 0.85 |
| Age |  |  |  | $\mathbf{- 0 . 1 7}$ |
| Intercept | 3.04 | $\mathbf{2 . 6 9}$ | $\mathbf{2 . 9 3}$ | $\mathbf{3 . 8 8}$ |
| $\mathrm{R}^{2}$ | 0.038 | 0.047 | 0.049 | 0.057 |

All coefficients in bold are statistically significant at p $<.005$
Family structure: two-parent family $=0$; single-parent family $=1$

## Table 3: Mean Differences by Gender, Family

Structure, and Age


## Family Structures and Children's Behavioral Problems (1): Subject of study

## - Externalizing behavioral problems

- Additive scale (0 to 18) derived from answers of PMK about child's being inattentive, non-cooperative, etc.
$\square$ Main explanatory variables
- Family structure:
- had lived in intact family across 4 NLSCY cycle (72\%)
- intact in 1994, divorce or separation prior to 2000 (14\%)
- lone-mother family for full period (9\%)
- Step family for full period (5\%)
- Income
- Income to needs ratio in 1994
- Change in income to needs ratio between 2000 and 1994


## Family Structures and Children's Behavioral Problems (2): Data and Methods

- National Longitudinal Surveys of Children and Youth - 1994, 1996, 1998, 2000
- 1902 children aged 4-5 in 1994 and re-interviewed in 1996, 1998, and 2000 (92\% of original sample)
- Method: Latent growth curve analysis
- Fit some form of regression curve to measures of dependent variable to derive:
- intercept latent variable
- slope latent variables
- Analysis of these two latent variables
- Analysis of intercept -- indicates how a specific family type was doing initially (in 1994)
- Analysis of slope -- indicates how well specific family types do over time


## Table 1: Mean Behavioral Problems Scores

By Family Structure, Children 4-5 Years Old in 1994, 1994-2000

|  | 1994 | 1996 | 1998 | 2000 |
| :--- | ---: | ---: | ---: | ---: |
| All Children | 4.9 | 4.5 | 4.4 | 3.2 |
| Intact Families 1994-2000 |  |  |  |  |
| Separation/ Divorce in 1994-2000 | 4.7 | 4.2 | 4.1 | 2.9 |
| Lone Parent Families 1994-2000 | 6.3 | 4.8 | 4.7 | 3.8 |
| Step Families 1994-2000 | 5.9 | 5.8 | 5.6 | 4.0 |
|  |  |  |  | 5.3 |
| $\mathrm{n}=1902$ |  |  |  |  |

## Table 2: Coefficients of Latent Growth Curve Models of

## Behavioral Problems Scores of Children 4-5 Years Old in 1994

|  | Model 1 |  | Model 2 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Intercept | Slope | Intercept | Slope |
| Lone Parent Families 1994-2000 | 0.180 * | -0.032 | 0.158 * | -0.037 |
| Step Families 1994-2000 | 0.086 * | 0.111 * | 0.083 * | 0.119 * |
| Separation/ Divorce in 1994-2000 | 0.031 | 0.083 * | 0.030 | 0.060 |
|  |  |  |  |  |
| Income to Needs, 1994 |  |  | -0.087 * |  |
| Change in Income to Needs, 1994-2000 |  |  |  | -0.156 * |

# Stress and Adult Health: Impact of Time Spent in Paid and Unpaid Work, and Its Division in Families 

(1) : Subject of Study

## $\square$ Stress

- Index based on answers to ten questions (plan to slow down, a workaholic, cut back on sleep ...)
- Main explanatory variables /Hypotheses
- Total time spent in paid and unpaid work / Time in productive activities has impact on stress
- Work schedules / Types of paid work are differentially associated with stress
- Child care and elderly care / Stress is associated with types of unpaid work
- Family models / Stress is associated with division between couples of productive activities
- Income and education / Personal and family resources have mitigating effects on stress

Stress and Adult Health: Impact of Time Spent in Paid and Unpaid Work, and Its Division in Families (2) : Data and Methods

- Data: 1998 General Social Survey on Time Use
- Men $(2,658)$ and women $(2,983)$ aged 30-59

ㅁ Methods:

- Bivariate correlation
- Multiple Regression
- Persons not in marital relation
- Persons in marital relation

ㅁ Persons working and in marital relations

## Table1: Mean and Pearson Correlation with stress index for age, paid work, and unpaid work

Variable<br>Age<br>Paid work (hours)/week<br>Unpaid work (hours)/week<br>Total N

| Men |  |
| ---: | ---: |
| Mean | Correl. |
| 42.8 | -0.177 |
| 40.4 | 0.260 |
| 22.2 | 0.054 |
| 2658 |  |

## Women

Mean Correl.
$42.9-0.193$
$26.1 \quad 0.175$
$44.3 \quad 0.143$
2983

## Table 2: Mean scores for the stress index <br> By Parental Status, Household Income and Family Models

## Parental status

No child under 15
At least one under 5
Children under 15 but not under 5

Men Women
$3.7 \quad 3.9$
$4.8 \quad 5.3$
$4.5 \quad 4.9$

Household income
Less than 20,000
20,000-39,999
40,000-59,999
60,000 or more
Men Women
$4.7 \quad 4.4$
$3.2 \quad 4.6$
3.9
3.9
$4.0 \quad 4.7$

Men Women
$3.9 \quad 4.3$
$4.0 \quad 4.6$
$4.4 \quad 4.5$
$4.1 \quad 4.6$

Family model
Complementary
Complementary gender revers ed Women's double burden
Men's double burden
Shared roles

## From Table 5: Determinants of Stress, Men and Women Aged 30-59, Working and in Marital Relations, Model 5

| Household income <br> (more than $\$ 60,000$ ) | Men | Women |
| :--- | :--- | :--- |
| 40,000 to 59,999 | 0 | 0 |
| 20,000 to 39,999 | $0.491^{* *}$ | $-0.395^{*}$ |
| Less than 20,000 | 0.048 | $-.598^{*}$ |
|  | 0.754 | 0.113 |
| Paid work hours | $0.034^{* * *}$ | $0.049^{* * *}$ |
| Unpaid work hours <br> Family model | 0.004 | 0.003 |
| $\quad$ Shared roles |  |  |
| $\quad$ Men double burden | $-0.556^{* *}$ | $-0.519^{*}$ |
| $\quad$ Women double burden | $-0.539^{*}$ | $-0.947^{* *}$ |
| $\quad$Gender reversed <br> (Complementary roles) | -0.248 | -0.242 |
| Parental status | 0 | $-0.799^{*}$ |
| $\quad$ Child under 15 but none under 5 | 0.116 | 0 |
| $\quad$At least one under 5 <br> (None under 15) | 0.080 | $0.561^{* *}$ |

# Young Canadians’ Timing of and Trajectory to Parenthood: Social Status and Gender Differentials 

(1) Subject of Study

- Age at Birth of First Child, \&
- Trajectory to First Birth

ㅁ Main explanatory variables:

- Social status derived from mother's education and father's occupation when respondent was age 15:
- Low
- Middle
- High
- Other variables, including personal income


## Young Canadians’ Timing of and Trajectory to Parenthood: Social Status and Gender Differentials

Data and Methods

- Data: 2001 General Social Survey on Family History
- Cohorts born in 1961-80
- Men - 4066
- Women - 4908
- Information used
- retrospective data on timing of events
- Methods:
- Single-decrement life tables
- Trajectory analysis using LIFEHIST
- Hazards analysis of timing of onset of parenthood


## Age at Parenthood, Men and Women, By Social Status and by 20-year Birth Cohort

F


Women


## Social status differences in trajectories to parenthood (1)

Most common trajectory: High social status

|  | Low |  | Middle |  | High |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Prob. | Dur. | Prob. | Dur. | Prob. | Dur. |
| A1. O - Grad - Work- Marr - Fatherhood |  |  |  |  |  |  |
| (I) Origin to Post-Secondary Graduation | 0.27 | 21.0 | 0.35 | 21.3 | 0.49 | 21.6 |
| (ii) PS Graduation to Work Start | 0.86 | 1.3 | 0.90 | 1.4 | 0.87 | 1.7 |
| (iii) Work Start to Marriage | 0.62 | 5.8 | 0.63 | 5.0 | 0.67 | 4.5 |
| (iv) Marriage to Birth | 0.95 | 3.1 | 0.92 | 3.0 | 0.85 | 2.3 |
| (v) Probabilyl Age at Final Transition | 0.14 | 31.2 | 0.18 | 30.8 | 0.24 | 30.0 |

Most common trajectory: Low social status
B2. O - Work - Marr - Fatherhood

| (I) Origin to Work Start | 0.64 | 17.9 | 0.58 | 18.3 | 0.43 | 19.0 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| (ii) Work Start to Marriage | 0.44 | 6.6 | 0.41 | 7.2 | 0.36 | 6.5 |
| (iii) Marriage to Birth | 0.80 | 2.4 | 0.76 | 2.0 | 0.70 | 2.3 |
| (iv) Probabilyl Age at Final Transition | 0.23 | 26.9 | 0.18 | 27.5 | 0.11 | 27.8 |

## Social status differences in trajectories to parenthood (2)

Trajectory to parenthood that does not go through marriage

|  | Low |  | Middle |  | High |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Prob. | Dur. | Prob. | Dur. | Prob. | Dur. |
| B3. O-Work - Father |  |  |  |  |  |  |
| (i) Origin to Work Start | 0.64 | 17.9 | 0.58 | 18.3 | 0.43 | 19.0 |
| (ii) Work Start to Fatherhood | 0.21 | 7.7 | 0.18 | 7.1 | 0.09 | 3.7 |
| (iii) Probabily/ Age at Final Transition | 0.14 | 25.6 | 0.10 | 25.4 | 0.04 | 22.6 |
|  | Low |  | Middle |  | High |  |
|  | Prob. | Dur. | Prob. | Dur. | Prob. | Dur. |
| B3. O-Work -Mother |  |  |  |  |  |  |
| (i) Origin to Work Start | 0.54 | 18.8 | 0.54 | 18.7 | 0.40 | 19.4 |
| (ii) Work Start to Motherhood | 0.25 | 5.6 | 0.23 | 6.2 | 0.11 | 4.4 |
| (iii) Probabily/ Age at Final Transition | 0.13 | 24.3 | 0.13 | 24.9 | 0.04 | 23.8 |

# Economic rationale for parenthood: Results from Hazards Models 

Model 1 Model $2 \quad$ Model 3
Respondent's Education
Some High School ®
High School Graduate
Some College

| $-0.244^{* * *}$ | $-0.228^{* * *}$ | $-0.206^{* * *}$ |
| :--- | :--- | :--- |
| $-0.446^{* * *}$ | $-0.388^{* * *}$ | $-0.204^{* *}$ |
| $-0.593^{* * *}$ | $-0.582^{* * *}$ | $-0.389^{* * *}$ |

Personal Income
Less than $\$ 20,000{ }^{\circledR}$

| $\$ 20,000-\$ 49,999$ | $0.428^{* * *}$ | $0.413 * * *$ | -0.009 |
| :--- | :--- | :--- | :--- |
| $\$ 50,000$ or higher | $0.637^{* * *}$ | $0.547^{* * *}$ | -0.011 |
| Missing | $0.488^{* * *}$ | $0.503^{* * *}$ | -0.001 |

## Women

## Respondent's Education

Some High School ${ }^{\circledR}$
High School Graduate
Some College
College/University Grad
Model 1
Model 2
Model 3

## Personal Income

Less than \$20,000 ®
\$20,000 - \$49,999

| $-0.507 * * *$ | $-0.366 * * *$ | $-0.347 * * *$ |
| :--- | :--- | :--- |
| $-0.978 * * *$ | $-0.763^{* * *}$ | $-0.740 * *$ |
| $-0.307 * * *$ | $-0.244^{* * *}$ | $-0.270 * *$ |

-Gender difference: income effect for men, opportunity cost effect for women
$\$ 50,000$ or higher
Missing

| $-0.546 * * *$ | $-0.651 * * *$ | $-0.755^{* * *}$ |
| :--- | :--- | :--- |
| $-0.852^{* * *}$ | $-0.942^{* * *}$ | $-0.962 * *$ |
| $-0.944^{* * *}$ | $-1.088 * * *$ | $-1.129^{* * *}$ |

## Some tentative \& general implications of findings:

- Findings point to the need for policies or services that would
- Support single parents particularly young single fathers and mothers who seem to have greater difficulties in combining care giving and provider roles
- Support families experiencing key transitions, for example, income support for recently divorced mothers
- Help people reduce the number of hours that they spend in paid work
- Diminish social inequalities such as those related to access to higher education and to employment
- Note however that reducing the disparities in opportunities could mean a greater delay in the onset of parenthood which might lead to
- even lower fertility than the current rate.
- biological consequences (more difficulties in having children; higher probabilities of pregnancy complications and birth defects)
- Facilitate the balancing of family and work life


## Website and contact address:

- Papers and presentations are available through the project's website:
http://www.ssc.uwo.ca/sociology/familyhealth/
- Or, contact us:
- rbeaujot@uwo.ca
- ravanera@uwo.ca

