

Gender Differences in Later Life Labour Supply

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Significance & Context

- Individuals and couples experience a variety of labor market transitions during middle age and older adulthood.
- Many of these changes reflect personal preferences and changing life circumstances, while others may reflect age discrimination or cumulative disadvantage in employment.

Research Questions

1. What factors predict labor supply for middle-aged and older adults?
2. Do predictors of later life labour supply differ by gender?

Secondary Data

- Health and Retirement Study (HRS)
- Purpose of HRS is to learn more about the health and economic status of individuals in the U.S. from pre- into post-retirement.
- On-going bi-annual survey started in 1992.
- Data from 1992-2006.
- Sample: White and Black non-Hispanics age 50+ → N=5,250 males & 5,292 females

Measures

- Labor Force Status (Outcome)
 - Self-employed: “Do you work for someone else, are you self-employed, or what?” (1=self employed, 0=not self employed)
 - Not in the labor force (e.g., unemployed, retired, disabled, homemaker)
 - Working for others (& not self-employed; reference)
- Demographics
 - Marital status (1=married)
 - Race (1=Black)
 - Ethnicity (1=Hispanic)
 - Age in 1992
 - Education (centered around grade 12)

Measures (cont.)

- Health
 - 1+ acute condition: cancer, heart problems, or stroke
 - 1+ chronic condition: diabetes, lung disease, or arthritis
- Household income
 - Annual household income (logged, centered)
 - Household income from pensions (1=yes)
 - Household income from investments (1=yes)
- Spousal characteristics
 - Spouse employed (1=yes)
 - Spouse 1+ acute condition (1=yes)
 - Spouse 1+ chronic condition (1=yes)

Measures (cont.)

- Time (interview wave; e.g., 0, 1, 2)
- Interactions
 - Time*Race
 - Time*Ethnicity
 - Time*Age
 - Time*Education

Data Analysis

- Hierarchical generalized linear modeling using HLM 6.06 software (Raudenbush, Bryk & Congdon, 2008)
- Multinomial logistic regression
 - Level 1 (time varying variables):
labor force status (outcome), time, chronic conditions, acute conditions, household income, household income from pensions, household income from investments, marital status, spouse employment status, spouse chronic conditions, and spouse acute conditions
 - Level 2 (non-time varying predictors):
race, ethnicity, age in 1992, and education

Reference: Working for Others Odds Ratios	Men		Women	
	SE	Not working	SE	Not working
Intercept	.05**	.09**	.03**	.15**
Race (1=Black)	0.93	1.36**	.58**	.69**
Ethnicity (1=Hispanic)	0.86	0.84	0.9	1.06
Age in 1992	1.06**	1.14**	1.01	1.08**
Education (centered)	1.01	0.99	.90**	.88**
Marital status (1=married)	0.95	0.99	1.53**	3.10**
Acute conditions (1=yes)	0.95	2.04**	1.07	1.84**
Chronic conditions (1=yes)	0.94	1.39**	1.01	1.35**
Household income (logged, centered)	.84**	.50**	.75**	.55**
Household pension income (1=yes)	1.63**	4.32**	1.40**	2.22**
Household investment income (1=yes)	3.44**	1.08	3.33**	1.02
Sp. acute conditions (1=yes)	.83*	0.9	0.94	0.96
Sp. chronic conditions (1=yes)	.89*	0.96	0.89	0.92
Sp. employed (1=yes)	1.18*	.67**	1.30**	.74**
Time	1.07**	1.33**	1.04	1.23**
Time*Race	0.98	.92**	1.07	1.04
Time*Ethnicity	0.98	0.96	1.04	1.02
Time*Age	1.00	1.00	1.01*	1.02**
Time*Education	1.01	1.00	1.01	1.01**

Factors that increase likelihood of being SE

Men

- Older age
- Lower HH income
- HH pension income
- HH investment income
- Spouse does not have acute or chronic health conditions
- Spouse employed
- Passage of time

Women

- White race
- Lower education
- Married
- Lower HH income
- HH pension income
- HH investment income
- Spouse employed
- Time*Age

Factors that increase likelihood of not working

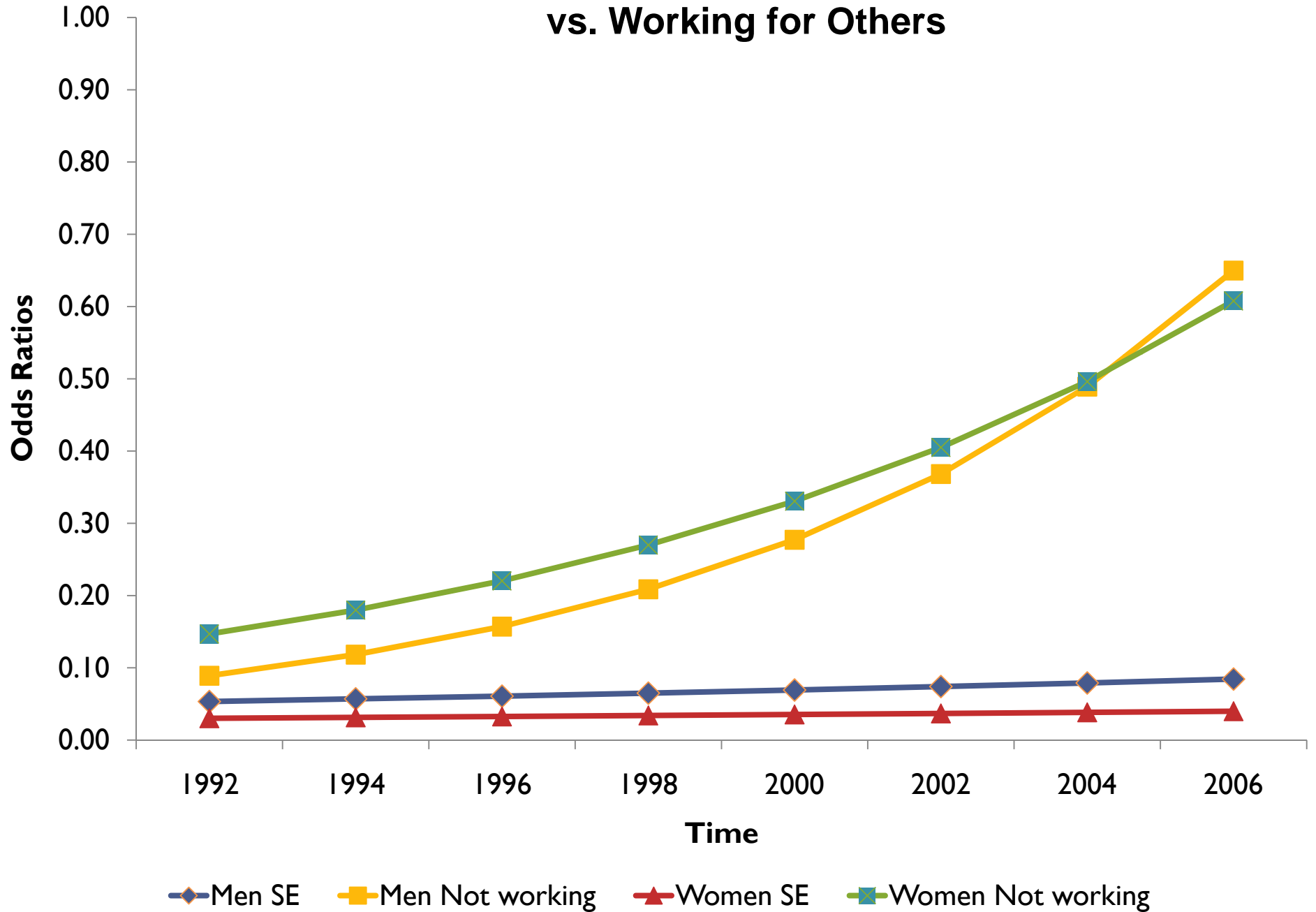
Men

- Black race
- Older age
- Acute conditions
- Chronic conditions
- Lower HH income
- HH pension income
- Spouse not employed
- Passage of time
- Time*White

Women

- White race
- Older age
- Lower education
- Married
- Acute conditions
- Chronic conditions
- Lower HH income
- HH pension income
- Spouse not employed
- Passage of time
- Time*age
- Time*education

Predicted Odds of Being Self-Employed or Not Working vs. Working for Others



Discussion

- Gender differences in later life labour supply.
- SE seems associated with having pension and investment income, and spouse employment.
- Predicted odds of SE are relatively flat, which implies that self-selection into SE is not affected by economic cycles over time, and commitment to SE even when others retire.
- Upturn in not working reflects sample aging.

New Zealand Data

- NZ Health, Work & Retirement Study
- Data collected in 2006
- Sample selection criteria: age 50+, data for all study variables, and primary ethnic group identification as NZ European or Maori → N=2,294 males & N=2,367 females
- Analyzed using SPSS 16.0.1 multinomial logistic regression

United States (2006)

	Men (N=2,995)	Women (N=3,597)
Self-employed	11.6%	4.8%
Not working	68.9%	76.5%
Working for others	19.6%	18.7%

New Zealand (2006)

	Men (N=2,294)	Women (N=2,367)
Self-employed	26.4%	11.4%
Not working	51.2%	52.5%
Working for others	22.4%	36.1%

Results for New Zealand

Reference: Working for Others Odds Ratios	Men		Women	
	SE	Not working	SE	Not working
Intercept	--	--	--	--
Ethnicity (1=Maori, 0=NZ European)	.79	.94	.84	1.07
Age	.98	.95	.92	.91
Education	1.04	1.02	1.12**	1.09**
Marital status (1=married)	.91	.76	.51**	.37**
Acute conditions (1=yes)	.72*	.72**	.60**	.69**
Chronic conditions (1=yes)	.50**	.55**	.51**	.49**
Household income (centered)	1.00**	1.00**	1.00**	1.00**
Individual pension income (1=yes)	.25**	.27**	.63	.47**
Individual investment income (1=yes)	1.03	.64**	.89	.71**
Spouse employed (1=yes)	3.07**	2.87**	4.93**	2.33**

NZ: Factors that increase likelihood of being SE

Men

- No chronic or acute conditions
- No pension income
- Higher HH income
- Spouse employed

Women

- Younger age
- No chronic or acute conditions
- Unmarried
- Higher education
- Higher HH income
- Spouse employed, if married

NZ: Factors that increase likelihood of not working

Men

- Younger age
- No chronic or acute conditions
- No investment income
- No pension income
- Spouse employed
- Higher income

Women

- Younger age
- No chronic or acute conditions
- Not married
- Higher education
- Higher HH income
- No investment or pension income
- Spouse employed, if married



**Thank you.
Questions?**

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