

Marital Status and Life Satisfaction under Economic Hardships: The Case of South Korea since the 1997 Asian Financial Crisis

Core Research Question

- Do married people still feel happier (or more satisfied with their overall life) than the unmarried even during the period of severe economic turbulence?

Extant Literature

- Numerous studies have attested various benefits of marriage on physical and emotional personal well-being (e.g., alcoholism, suicide, morbidity and mortality, psychiatric problems, and self reports of happiness): Married people live longer and generally are more emotionally and physically healthy than the unmarried (Coombs 1991).
- Men tend to benefit more from marriage than women through multiple mechanisms including physical and emotional enhancement and the interplay of those with cultural expectations (Nock 1998)
- There are two competing hypotheses explaining the marriage 'premium': SELECTION vs. PROTECTION/SUPPORT. Social selection theory contends that persons who are already relatively high in qualities like psychological health and financial status are the ones who are most likely to marry in the first place whereas social protection/support theory contends that marriage itself increases happiness by providing emotional and financial support (Stack and Eshleman 1998).
- The marriage premium on personal well-being has largely been attributed to three intermediating mechanisms: enlarged financial resources, improved physical health, and enhanced emotional support.

Questions & Hypotheses of the Study

- Does this relationship of marriage and personal well-being also hold for the relationship between the marital status and the overall level of life satisfaction, which is another important measure of subjective personal well-being?
- If so, do married people still report higher level of life satisfaction even under the period of severe economic hardship? Due to the higher level of social and economic stresses derived from the adverse life conditions of economic crises, the protective effect of marriage may diminish, possibly leading the marriage premium into a null or negative effect during these difficult times. On the contrary, are married people still better off even under these unfavorable socioeconomic conditions?
- Most happiness and subjective well-being research is based on the U.S. where the divorce rate is high so that the married are the selected group of people who decide to stay in marriage because of the perceived and experienced positive effects of marriage. The beneficial effect of marriage, however, may not hold in a different cultural context in which divorce is highly discouraged by social norms and values such as Korean and Japanese societies.

- We are also interested in investigating the roles of age (Cheng 2004, Yang 2008), sex, education, work status, health (Ross et al. 1990), and religion (Ellison et al. 1989; Ellison 1991) in determining the relationship between marriage and life satisfaction.

Backdrop of the Study

- For a decade after the 1997 Asian Financial Crisis, South Korea, who was once praised as the paragon of developmental state averaging economic growth rate of 8% for nearly three decades, has been suffering the worst economic recession since the Korean War in 1950s (Kim and Shin 2004). Due to the complex interplay between the internal and external socioeconomic problems at the time, South Korean government was unable to pay back the international short-term loans in time and had to ask the International Monetary Fund (IMF) for bailouts, acquiescently accepting the IMF's economic restructuring program based on the neoliberal economic policies of market liberalism, privatization, and deregulation (Beeson and Islam 2005; Lim and Jang 2006). Even if Korean economy has substantially recovered from the economic crisis ever since, the status of current Korean society can only be summarized with "the rich get richer, and the poor get poorer" situation not only in the trajectories of objective economic measures over this period but also in those of the subjective evaluation of personal wellbeing.
- On this interesting and crucial time of the modern Korean history, we are asking whether marriage, as a social institution, still functions as expected when it comes to, but not limited to, the subjective personal well-being measured by individual's level of overall life satisfaction.

Data & Method

- **Data:** Korean Labor Income Panel Study (wave 1-9 between 1998 and 2006), which was initially launched with the nationally representative sample of 5000 households and their members in 1998, annually documents extensive information on their various social and economic activities, including education, income, labor force participation, and health etc. (It is equivalent to the U.S.' Panel Study of Income Dynamics in South Korea).
- **Statistical Methods:** Fully utilizing the 'nested' structure of the panel data (multiple observations on the same subject), we employ a multilevel analysis for change in order to model the individual trajectories of the life-satisfaction level in relation to marital status and other covariates since the 1997 Asian Financial Crisis (See Gelman and Hill (2007), Raudenbush and Bryk (2002), and Singer and Willett (2003) for methodological details).

Variables

- **Dependent Variable:** Respondent's self-rated report on the question "If you consider your life overall, how satisfied would you say you are nowadays?" on a scale of 1 (very dissatisfied) to 5 (very satisfied)
- **Independent Variable of Major Interest:** Respondent's marital status (never married, married, separated, divorced, widowed)

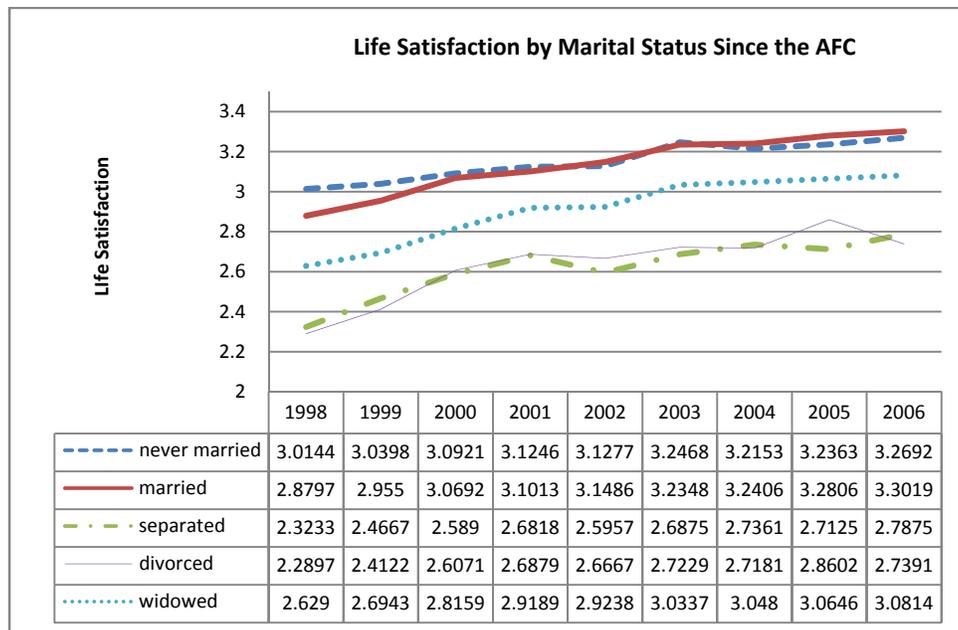
- **Controls and Covariates:** Respondent’s sex, age, level of education, work status, household income per family member, self-rated health, children, and religion

Table 1. Summary Statistics for All Variables (N=71325 for 11848 Respondents)

Variable	Mean	SD	Min	Max
Life Satisfaction	3.15	0.67	1	5
Year	-	-	1998	2006
Marital Status				
Single	0.27	0.45	0	1
Married	0.63	0.48	0	1
Separated	0.01	0.08	0	1
Divorced	0.02	0.13	0	1
Widowed	0.08	0.26	0	1
Age	41.68	16.84	14	99
Female	0.52	0.50	0	1
Years of Education	12.76	2.98	0	21
Family Income Per Member (Korean Won)	57.69	46.65	0	1000
Health Status	3.43	0.97	1	5
No Children	0.35	0.44	0	1
Religiosity	0.56	0.50	0	1

Preliminary Analyses

- A general trend of the reported mean levels of life satisfaction by marital status (with NO control variables)



- It seems that, without any controls, married people reported lower level of life satisfaction than the single before 2001, when South Korean economy recovered to the pre-crisis level repaying all the debts to the IMF, and started to ‘recuperate’ and report higher levels of life satisfaction ever since.
- This trend graph, which treats panel data as if they are repeated cross-sectional datasets, could be misleading since it does not control for unobserved individual heterogeneity and other confounding factors that may have affected both the levels of life satisfaction (dependent variable) and marital status (independent variable of interest), such as age, sex, education, income, and health etc.
- To address these problematic issues, the multilevel analysis from the so-called ‘growth curve’ perspective was conducted to model the individual trajectories of life satisfaction level over time:

$$LS_{ij} = [\gamma_{00} + \gamma_{10}YEAR_{ij} + \gamma_{20}MS_{ij} + \gamma_{30}MS_{ij} * YEAR_{ij} + \gamma_{40}MS_{ij} * SEX_i + \gamma_{01}SEX_i + \gamma_{02}RELIG_i + \sum_{k=5}^{10} \gamma_{k0}TVC_{ij}] + [\zeta_{0i} + \zeta_{1i}YEAR_{ij} + \varepsilon_{ij}]$$

LS_{ij} : Individual i 's reported level of life satisfaction at time j

TVC_{ij} : Other time-varying covariates of individual i at time j (e.g. age, education, work status, income, health and children)

ζ_{0i} and ζ_{1i} : Random effects of intercept (γ_{00}) and annual rate of change (γ_{10}) respectively

(See page 6 for the result table)

Highlighted Results

- Model 5 is the final model that test the effect of marital status on individual’s level of life satisfaction controlling for other covariates.
- It turns out that the negative impact of marriage on one’s level of life satisfaction shown in the previous trend graph between 1998 and 2001 is spurious, and the group of married people indeed report higher level of life satisfaction than the other unmarried groups at all times: This result provides another empirical evidence in support of social protection/support theory.
- As shown in the interaction effect between the married and year variables (Married*Year), the recuperation rate of the level of life satisfaction for the married is higher and statistically significant than that of the single as Korean economy recovers from the recession.
- Aligned with existing literature, women tend to less benefit from marriage than men.
- One’s level of education, work status, income, health, no children, and religiosity shows positive effects on individual’s overall level of life satisfaction.

Conclusion and Discussion

- Using the case of South Korea since the 1997 Asian Financial Crisis, this study shows that the 'marriage premium' on individual's subjective well-being (the level of life satisfaction in this case) is still solid even under the period of economic difficulties, supporting the marriage protection/support hypothesis over the selection hypothesis.
- Capitalizing on the nested structure of panel data, changes in the individual trajectories of the level of life satisfaction and unobserved heterogeneity have been more efficiently controlled with multilevel analysis (cf. prevalent use of cross-sectional or repeated cross-sectional datasets in the existing literature).
- Even in a country that has a long legacy of Confucianism, such as South Korea, the level of life satisfaction by marital status shows similar patterns as in other Western societies.

Selected References

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Table 2 . Multilevel Analysis for Change in the Individual Trajectories of the Level of Life Satisfaction between 1998 - 2006

	Model 1	Model 2	Model 3	Model 4	Model 5
Fixed Effects					
Intercept	2.9666 ***	3.0087 ***	2.8034 ***	2.6836 ***	2.0756 ***
Year	0.0378 ***	0.0307 ***	0.0366 ***	0.0372 ***	0.0322 ***
Marital Status ^a					
Married		-0.0312	0.1696 ***	0.3477 ***	0.2738 ***
Separated		-0.4733 ***	-0.2569 **	-0.3567 *	-0.4026 **
Divorced		-0.4494 ***	-0.2318 ***	-0.205 *	-0.2486 **
Widowed		-0.2227 ***	0.0394	0.217 *	0.0826
Married*Year		0.0103 ***	0.006 *	0.0055	0.0117 ***
Separated*Year		0.0105	0.005	0.0069	0.0058
Divorced*Year		0.0066	0.0012	0.0008	0.0041
Widowed*Year		0.0189 ***	0.0127 *	0.012 *	0.0154 **
Age			-0.0086 ***	-0.0087 ***	-0.0037 ***
Age*Age			0.0002 ***	0.0002 ***	0.0003 ***
Female				0.0813 ***	0.088 ***
Female*Married				-0.1195 ***	-0.0708 ***
Female*Separated				0.0561	0.1269
Female*Divorced				-0.0175	0.0316
Female*Widowed				-0.1096 *	-0.0149
Education					0.0819 ***
Employed					0.0264 ***
Income per member					0.0462 ***
Income * Year					-0.0037 ***
Health					0.0412 ***
No Children					0.0532 ***
Religion					0.0371 ***
Random Effects - Variance Components					
Level-1: Within-person	0.2724 **	0.2721 **	0.2720 **	0.2720 **	0.2736 **
Level-2: Var in Intercept	0.2884 **	0.2829 **	0.2729 **	0.2722 **	0.2177 *
Var in Year	0.0050 **	0.0050 **	0.0049 **	0.0049 **	0.0044 *
Cov of Inter & Year	-0.0277 **	-0.0279 **	-0.0271 **	-0.0270 **	-0.0242 *
Goodness-of-fit					
Deviance	96763.58	96302.8	95969.04	95923.86	93218.44
AIC	96775.58	96330.8	96001.05	95965.85	93270.43
BIC	96828.66	96454.64	96142.58	96151.62	93500.43

Note: The standard errors are omitted in the interest of space.

^a Reference group is 'Never Married.'

* p<0.05; ** p<0.01; *** 0<0.001 (two-tailed test)