Socioeconomic Determinants of Divorce and Separation in South Korea: Revisit to "Independence" Hypothesis

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Background

For just over a decade between 1990 and 2003, the crude divorce rate has tripled from 1.1 to 3.5 (Figure 1, KOSIS 2004, Lee 2005). The rate has increased particularly fast from 1996 to 1998 (1.7, 2.0 and 2.5, respectively) and again in the 2000s (2.5, 2.8, 3.0 and 3.5 from 2000 through 2003, respectively). The onset of this divorce hike in Korea appears to coincide with the times of economic crisis since 1997. With the collapse of foreign-currency exchange market in December 1997, Korea's economy went under the direction of the IMF. Massive restructuring of the economy resulted in unexpected loss of jobs for many workers well before the normal retirement ages. This study examines how the socioeconomic circumstances of the spouses affect the probability of divorce or separation in such a social context. We use data from a longitudinal survey conducted annually between 1998 and 2003.

The literature suggests that husband's and wife's socioeconomic characteristics have distinctive effects on the probability of divorce. The "income effect" refers to the finding that husband's high incomes stabilize the marriage (e.g., Ross and Sawhill 1975). Higher income means greater resources available to the family and higher standard of living, which may be translated into greater life satisfaction and hence a lower probability of marital breakup. On the other hand, the "Independence hypothesis" postulates that wife's income has a potential to destabilize the marriage (e.g., Sayer and Bianchi 2000). Theoretical models have been developed why wives' high incomes may be detrimental to marital stability. However, evidence for the independence hypothesis has been mixed. The association between married women's employment and divorce rate has been widely confirmed in the aggregate level, but often rejected at the individual level (Oppenheimer 1997).

The inconclusive findings may suggest a complexity in the association (e.g., Sayer and Bianchi 2000). Many other factors may involve couple's decision about marital breakup, and unequal gender relations may encourage the two spouses to use their personal resources differently. This study attempts to explore some of the complexity, focusing on the question how women's employment and income are related to marital disruption. In the following we review some alternative hypotheses regarding the association, starting from the classic model of role specialization.

The Independence Hypothesis: Role Specialization Model

The independence hypothesis is based on the role specialization theory. The gist of the theory is that family utility can be maximized with the gender division of labor, where husbands engage in market production activities and wives take the responsibility of household production (Becker 1991; Becker, Landes, and Michael 1967). According to the model, married women's employment outside home means reduced gains to marriage for the wives and for the husbands as well. That is, dual earner couples have weaker economic basis of marriage and hence are more likely to have a marital breakup, compared to male earner couples where wives do not have independent sources of income. In addition to the association between wives' employment per se and the probability of divorce, the independence hypothesis also predicts that the higher the women's earnings and the more stable women's jobs are, the less gains to marriage and the higher the probability of divorce.

Role Arrangements Hypothesis

This hypothesis is based on the finding that an increase in wives' incomes over the marital duration heightens marital instability while wife's income at one point of time does not (Weiss and Willis 1997; Tzeng and Mare 1995). What matters for marital stability is not whether the wife is employed or not but whether the role arrangement made at the time of marriage is violated or not. The idea is that some couples may agree on wife's employment and in such a case wife's employment should not result in marital instability. The timing of wife's employment is considered an indicator of couple's role agreement. Thus, it is predicted that the onset of wife's employment after marriage may increase the chance of marital conflicts and marital breakup. Likewise, wife's rank promotion may also be detrimental to marital stability.

Role Strain Hypothesis

As an extension of role specialization model, the role strain hypothesis assumes that wife's employment causes stress among family members (Bumpass and Choe 2004). It is well known that husbands in dual earner families do not share the housework equally with wives. A 2005 national survey in Korea shows that husbands of working women spend only several minutes more on housework than do husbands of full time housewives (KIHASA 2006). Women do a large chunk of housework even when they are employed outside home. Such role strain would harm marital quality and increase the probability of divorce. The role strain may be particularly acute for wives whose working hours are long.

Reverse Causality

These existing explanations of the association between women's employment and marital instability focus on the causal influences of employment on marital breakup. Both the role arrangement and role strain hypotheses presume that wives' employment is the source of marital conflicts. By emphasizing diminished gains to marriage, the independence hypothesis also assumes that women's employment weakens, if not threatens, the basis of marital ties. Some recent studies argue that the independence effects are contingent on poor marital quality or gender ideology of the two spouses, implying a complexity in the relationships between women's employment and marital instability (Sayer and Bianchi 2000). However, none of these hypotheses explicitly models the reverse causal relationships or tries to distinguish different motivations behind married women's employment.

Data show that divorced women are more likely than married women to participate in the labor force, and it is obvious that economic needs to participate in the labor force would be greater among divorced women than among married women. Similarly, it is plausible that married women anticipating a marital breakup would seek employment. They may begin their work before or after the marital breakup. In a society where divorce has been a social taboo as in Korea, the latent period of marital conflicts before the actual time of divorce or separation may be long enough for women to find jobs and begin working. Married women's entering or reentering into the labor market may be related to forthcoming marital breakups.

Wife's Income Effect?

A corollary of the reverse causality hypothesis is that wife's income may have opposite effects on marital breakup for women whose employment was initiated by the anticipation of divorce and for other working women. Among women whose employment is not out of anticipation of

marital breakup, high incomes may have the effect of stabilizing the marriage, as does husband's income.

Predictions of the Hypotheses

According to the classic independence hypothesis, the following three predictions are possible. Employed women are more likely to divorce or separate than women who are not working. Women who have stable jobs, i.e., who have solid positions in the labor market, are more likely to divorce or separate than women with unstable jobs. Wives' high incomes have a positive effect on the probability of divorce. These hypotheses have not been consistently confirmed in the United States, but supporting evidence is found in Finland (Jalovaara 2003) and in the Netherlands (Poortman and Kalmijn 2002). According to the role arrangement hypothesis that presumes that changes in married women's roles are detrimental to marital stability, wives' entering into the labor market or change in rank position (such as, promotion) will have increased marital instability. According to the role strain hypothesis, wives' long working hours will be particularly detrimental to marital stability. The reverse causality hypothesis predicts that married women who seek employment as well as who begin working after marriage will show higher probabilities of marital breakup. The wives' income effect hypothesis predicts an interaction effect between wife's earnings and the reasons for her employment.

Data and Methods

Data are from the Korean Labor and Income Panel Study. The initial survey was conducted in 1998 based on a national sample of 5,000 households that represents urban areas of Korea (KLI 2004). The survey consists of two main questionnaires, one for household information and the

other for individual characteristics. Respondents of the individual survey include all household members aged 15 or older, totaling13,738 persons. To identify the spouses in the individual data, we use the variable of relationship to household head, which allows 69 categories of detailed relationships (for example, first child, first child's spouse, first child of first child, spouse of first child of first child, etc.). Then we merged the parallel data from both spouses as well as the household data. Thus, in our analysis, the unit of analysis is the couple. The analysis is restricted to the couples whose marriage was intact at the first wave of survey and wife was 49 years old or younger.

The dependent variable is coded 1, if either spouse is recorded as divorced or separated in the next five waves by 2003.[1] Couples in which either spouse is widowed in the 5-year period (46 couples, 1.5 percent) and those couples in which both spouses were not interviewed in the last three waves from 2001 through 2003 (441 couples, 14.7 percent) are considered censored, and excluded from the analysis. The 2,506 couples comprise the final sample. The logistic regression is used to examine the determinants of divorce or separation.

Variables: The independent variables include various socioeconomic and demographic characteristics of the couples as of the first wave of the survey. Variables describing the wife include age at marriage, age, employment status, earnings, and education. The same characteristics of the husband were considered, but the preliminary analysis did not showed any significant net effect. To test the hypotheses discussed above, wife's employment characteristics are classified by a combination of employment status, whether the current job began before or after marriage, and current working hours. For the parsimony of the multivariate analysis models, those three criteria were considered simultaneously. The final seven categories are as

[1] The survey data identify the interviewee for the household data, but it is not clear who answered the individual questionnaire.

follows: paid employees who began the job before marriage, paid employees who began the job after marriage who are currently working 1 through 53 hours per week, paid employees who began the job after marriage who are currently working 54 or more hours per week, self-employed workers, family workers, women who are not working but seeking work, and women who are not working and not seeking work. The seeking work category includes women who actively searched for jobs in the past week, month, or year as well as women who want to work who were available for work last week. In a separate analysis testing the income effect hypothesis, all paid employees are regrouped into regular and irregular employments. Irregular workers refer to those who work part time, shifts, or based on temporary or short-term contracts.

Home ownership and subjective evaluation whether the family experiences a financial difficulty measure household financial status. Couple's family life satisfaction is grouped into three categories: first, the wife is a respondent of the survey and answered she is dissatisfied with family income and family relationships. The second category is where the husband is a respondent of the survey and answered he is dissatisfied with family relationships. The rest category consists of either respondent being satisfied with family life or a third person being the respondent of the survey. The family life satisfaction scale consists of five items—overall family life, family income, family relationships, leisure activities, and housing conditions—but the preliminary analysis showed that, for wives, joint dissatisfaction with family income and relationships, and, for husbands, dissatisfaction with family relationships, significantly affect the probability of divorce or separation in the next 5 years. Living with wife's relatives, such as parents and siblings, is also considered.

Descriptive statistics of these variables are presented in Table 1. In urban areas of Korea, among the non-censored sample of married couples in which wife's age is 49 years old or less in

1998, 4.0 percent experienced divorce or separation (or both) by 2003. About 35 percent of the wives were not working and were not seeking employment. Paid employees who began their employment before marriage comprise 5.7 percent, paid employees who began their employment after marriage who are currently working 1 through 53 hours per week comprise 11.2 percent, and paid employees who began their employment after marriage who are currently working 54 hours or more per week comprise 6.0 percent of the sample. As much as 23.0 percent of the sample wives were not currently working but were seeking employment. Among all paid employees, regular and irregular employment types were roughly equally distributed.

Table 2 shows a considerable gap between the two spouses in the records of divorce or separation. The top panel shows that 40 couples were recorded divorced or separated only in husband data and 33 were recorded so only in wife data. For 27 couples, both husband and wife data recorded divorce or separation. To combine the information, a total of 100 couples divorced or separated between 1998 and 2003. Further analysis showed that approximately half of the sole records were due to the attrition of the other spouses from the panel (results not shown). The bottom panel shows that out of 100 couples that experienced divorce or separation, 29 couples were separated, 59 couples were divorced, and 12 couples were separated and then divorced.

Findings

Wife's Employment Status and Income: The Independence, Role Arrangement, Role Strain, and Reverse Causality Hypotheses

Results from the logit analysis of the determinants of divorce or separation are presented in Table 3. The first column shows findings from the bivariate analyses. Models 1 in the next

column controls for wife's age at marriage, wife's age, and wife's education, and examines the effects of wife's employment status on divorce or separation. The next two models further control for other socioeconomic variables. The magnitudes of the coefficients for wife's employment status are slightly decreasing across Models 1 through 3, but the general patterns remain the same.

Paid employee wives who began their jobs before marriage are neither more nor less likely to divorce or separate than wives who are not working and not seeking work, i.e., wives who are out of the labor force. Paid employee wives who began their jobs after marriage who work 1 through 53 hours per week are more likely to divorce or separate than wives who are out of the labor force in the first two columns, but not any more after controlling for other family socioeconomic circumstances. Paid employee wives who began their jobs after marriage who work 54 hours or more per week are considerably more likely to divorce or separate than wives who are out of the labor force in all four models. Self-employed wives are equally likely to divorce or separate as wives who are out of the labor force. The coefficients for family workers are negative across the models but the effects are not statistically significant. Wives who are seeking work are significantly more likely to divorce or separate than wives who are out of the labor force. Wife's earnings do not have any effect on marital breakup, regardless of controls of husband's income or other family financial circumstances (Models 2 and 3).

To summarize, these results are not consistent with the predictions of the independence hypothesis. Wife's long-term stable paid employment that began before marriage does not increase the probability of marital breakup. Wife's earnings also do not have a positive effect on the probability of marital breakup. In addition, changes in rank position after marriage among paid employees do not affect divorce or separation (results not shown). Meanwhile, these

findings appear to be consistent with the role arrangement hypothesis in that wife's becoming paid employee after marriage increases the probability of divorce or separation while continuing her job from before marriage does not, both as compared to wives out of the labor force. The results support the idea that wife's violation of the role arrangements made at the time of marriage may bring about marital conflicts that lead to divorce or separation.

However, the same findings in Table 3 seem to be more consistent with the role strain hypothesis than with the role arrangement hypothesis. Wives who become paid employees after marriage who work 54 hours or more per week show a considerably higher probability to divorce or separate than wives who are out of the labor force (odds ratios ranging 4.6 through 2.9 in Models 1 through 3). Actually, wives who become paid employees after marriage who work 54 hours or more per week show a higher probability of divorce or separation compared to wives of any other employment status although statistical significance of these differences is not confirmed. Wives who become paid employees after marriage who work less than 54 hours, on the other hand, show a higher probability of divorce or separation than wives who are out of the labor force only when family financial circumstances are not controlled, which suggests that these 1-53 hour working women are more likely to divorce in Model 1 partly because of adverse family financial circumstances. Maybe these women got employed because of family financial pressures to begin with.

It would be possible to differentiate the two hypotheses, role arrangement and role strain, if we could divide women who continue their jobs from before marriage into two groups by their current working hours. But the total number of women in that group is only 142 and only 13 of them (9.2 percent) work 54 or more hours per week (top panel Table 4). In contrast, among women who become paid employees after marriage, 35 % (151 out of 431) work 54 hours or

more per week. This difference tells us that the onset of this job, i.e., before or after marriage, implies more than just the timing. The two groups also show differences in working hours and the contents of jobs. The second and third panels of Table 4 show that paid employment begun before marriage is more likely to be regular employment in professional or clerical occupations than is paid employment begun after marriage. The latter consists of larger proportions of service occupations and blue-collar occupations.

Thus, paid employees who continue their jobs over marriage are holding stable and relatively high-earning jobs. On the other hand, paid employees who began their employment after marriage engage in less prestigious jobs working long hours. The latter group seems to be motivated to work by some pressing needs, either family financial pressures or needs for economic independence.

The effects of wives' seeking work on marital breakup provide a clear support for the hypothesis of reverse causality, i.e., anticipation of marital breakup motivates married women to work. Wives who are not working but seeking employment are significantly more likely to divorce or separate, regardless of controls of other family circumstances (Models 1 through 3 Table 3). This positive effect of seeking work is not explained by either the role arrangement hypothesis or the role strain hypothesis. These women do not yet participate in work outside home, and thus their roles should not be changed nor strained. The association between seeking work and marital breakup can only be explained either by a reverse causal relationship or by a spurious relationship caused by some third factors. That is, these wives either anticipated marital breakup, or some third factors motivate women to seek employment and cause marital breakup. Difficult household financial circumstances may be among such third factors, but our analysis supposedly controls for measures of household financial circumstances, such as home ownership,

subjective evaluation of household financial difficulty, and husband's income (Models 2 and 3), which makes the reverse causality hypothesis more plausible. In this line of reasoning, the considerably higher probability of divorce or separation among wives working long hours may reflect their stronger motivation to be economically independent.

In Table A1 in Appendix, all wives who are not working are treated as an omitted category, and only those employees who work long hours show a significantly higher probability of marital disruption.

Wife's Income Effects

The above discussion regarding the effects of wife's employment status suggests that married women are a heterogeneous group with respect to their path to employment, either related to the anticipation of marital breakup or not. Thus, the effects of wife's income on marital disruption may differ by the paths. We test this interaction effect in Table 5. For this analysis, paid employees are regrouped into regular and irregular types of employment, with an assumption that regular paid employment tends to contain women of the second path.[2] The results show that wife's earnings and regular paid employment has a significant interaction effect. That is, wife's earnings have a significant positive effect on marital breakup among wives who are not regular paid employees but the effect of earnings is significantly more negative among regular paid employees. Further analysis shows that the negative effect of earnings on marital breakup among regular paid employee (the coefficient -1.16=.57-1.73 in model 1) is not statistically significant (result not shown).

[2] Paid employees who began their jobs before marriage may better represent this path, but the number of cases is too small.

Husband's Income and Household Financial Status

Our preliminary analyses examined husbands' socioeconomic characteristics as well. Hardly any husband variables had a significant net effect, including education and employment status. Also, husband's unemployment at the baseline survey did not affect marital breakup in the next 5 years (results not shown). Even husband's earnings does not have a significant net effect controlling for family financial circumstances (Models 2 and 3 Table 3). During the period of economic turmoil between 1998 and 2003, it appears that husband's current income is not a good measure of family wellbeing.

On the other hand, family financial circumstances, such as home ownership and respondents' evaluation of having a family financial difficulty, have strong influences on marital breakup in the 5-year period. Homeownership decreases and subjective financial difficulty increases the probability of divorce or separation.

Life Cycle Characteristics

Number of children shows a strong negative relationship with marital breakup (Model 3 Table 3). Korea showed a strong son preference in fertility behavior, but in affecting the probability of divorce or separation, sons and daughters have similar effects. Alternative specifications, such as having a son or not and have a daughter or not, do not make any differences. Number, not the gender composition, of children is important in affecting the probability of marital breakup. Controlling for the number of children, the strong negative effect of wife's age on divorce or separation disappears, which suggests that the effect of number of children may reflect cohort differences in the propensity of marital breakup.

Wife's young age at marriage increases the probability of divorce, which is consistent with the literature arguing that uncertainty of spouses' lifetime socioeconomic status at the time of marriage or a more general misinformation about spouses may be the reason. In our data that include all married couples as of 1998, among the young cohorts, only those who marry early are included in the sample. Thus, this strong effect of young age at marriage may be confounded with the higher propensity of divorce or separation among younger cohorts. On the other hand, marital duration does not have a significant gross effect, but after controlling for wife's age, middle and later durations show higher probabilities of marital breakup (results not shown).

Interestingly, living with wife's relatives, parents or siblings, is positively associated with the probability of divorce or separation. The percentage of the sample in this living arrangement is only about 2 percent and a selectivity of this group may be the reason for the association. Controlling or not for this living arrangement had little influence on the effects of other factors in the model.

Satisfaction with Family Life

Family life satisfaction is an important determinant of marital disruption, but the findings show some interesting gender differences. For husband interviewees, dissatisfaction with family relationships increases the probability of marital breakup, but for wife interviewees, dissatisfaction with both family relationships and family income increases the probability of marital breakup. For wives, the effect of dissatisfaction with either one aspect was not significant.

Although family life satisfaction is a significant determinant of marital disruption, its controlling does not substantially reduce the effects other variables, including family financial

circumstances and wife's employment status. In other words, family life satisfaction, at least as measured in this survey, is not the major proximate determinant of marital disruption. This suggests that our model does not fully depict the processes of marital disruption, leaving the question of the real causes of marital disruption unanswered.

Discussion and Conclusion

The findings reveal a complexity in the relationships between women's employment and marital instability. Women who become paid employees after marriage, especially those who work very long hours, are more likely to divorce or separate than women out of the labor force. This could be interpreted as married women's role changes or role strain causing marital conflicts. However, married women who seek employment are also substantially more likely to divorce or separate in the next five year period than women out of the labor force. This latter finding implies that anticipation of marital breakup motivates married women's employment. Such reverse causality is particularly plausible since we control for household financial situations in the analysis, which could produce spurious relationships between women's seeking employment and marital breakup. In summary, we conclude that anticipation of marital breakup leads to some married women's employment or sought for employment. On the other hand, women who began paid employment before marriage are not different from women out of the labor force in the probability of marital breakup.

In short, understanding different paths to married women's employment may be the key to solving the complexity of the relationships between women's employment and marital instability. It is noteworthy that the reverse causality argument leaves the question of why married women anticipate marital breakups unanswered. The hypothesis simply assumes that

the real causes of marital breakups are not related to employment. The hypothesis of workplace providing opportunities to meet a date (South and Lloyd 1995) is not applicable to the Korean data.

Family financial circumstances turn out to be a powerful predictor of marital disruption in Korea. This is the case even after controlling for some measures of family life satisfaction, wife's employment status, and several other family characteristics. Husband's socioeconomic characteristics do not show any net effect after considering other variables, suggesting the importance of their cumulative outcomes over lifetime.

References

Becker, G., Landes, E. M., & Michael, R. T. 1977. “An Economic Analysis of Marital Instability.” *Journal of Political Economy, 85*(6), 1141-1187.

Bumpass, Larry L. and M. K. Choe. 2004 "Attitudes Relating to Marriage and Family Life," pp. 19-38 in Noriko O. Tsuya and Larry L. Bumpass (eds) Marriage, Work & Family Life in Comparative Perspective: Japan,South Korea, and the United States. Honolulu: University of Hawaii Press.

Jalovaara, M. 2003. “The Joint Effects of Marriage Partners’ Socioeconomic Positions on the Risk of Divorce.” Demography 40(1): 67-81.

Korean Labor Institute (KLI). 2004. Korean Labor and Income Panel Study: User’s Guide. (in Korean)

Lee, Y-J, 2006. “Risk Factors in the Rapidly Rising Incidence of Divorce in Korea” Asian Population Studies, forthcoming.

Oppenheimer, V. K. 1997. "Women's Employment and the Gain to Marriage: The Specialization and Trading Model." *Annual Review of Sociology* 23:431-53.

Poortman, A. and M. Kalmijn 2002. Women’s Labour Market Position and Divorce in Netherlands: Evaluating Economic Interpretations of the Work Effect.” European Journal of Population 18(2): 175-202.

Ross, H. L. and I. V. Sawhill 1975. *Time of Transition: The Growth of Families Headed by Women*, Washington DC: Urban Institute.

Sayer, L. C., & Bianchi, S. M. 2000. “Women's Economic Independence and the Probability of Divorce.” *Journal of Family Issues, 21*(7), 906-943.

South, S. J. 2001. Time-Dependent Effects of Wives' Employment on Marital Dissolution. *American Sociological Review, 66*, 226-245.

South, S. J. and K. M. Llyod. 1995. “Spousal Alternatives and Marital Dissolution.” *American Journal of Sociology* 60: 21-35.

Tzeng, J. M., & Mare, R. D. 1995. Labor Market and Socioeconomic Effects on Marital Stability. *Social Science Research, 24*, 329-351.

Table 1. Characteristics of Married Couples in the 1998 Baseline Survey: Wife's Age is 49 or Less

Variables	Percent (Mean*)
Divorced or separated by 2003 survey	4.0
Wife's age at marriage	
17-20	10.8
21-23	31.7
(24-26)	39.9
(27-29)	14.3
30 or older	3.4
Wife average age at marriage*	24.1
Wife age*	36.6
Wife's current employment status	
(Not working and not seeking work)	34.9
Paid employee:	
Beginning before marriage	5.7
Beginning after marriage, working 1-53 hours per week	11.2
Beginning after marriage, working 54 or more hours per week	6.0
Self employed	8.1
Family worker	11.1
(Seeking work)	23.0
Paid employee:	
Regular employee	12.3
Irregular employee	10.6
Wife education	
Middle school or less	31.8
(High school)	51.0
Junior college or higher	17.2
Wife monthly earnings* (100 thousand won)	2.58
Wife earnings missing	0.4
Husband monthly earnings* (100 thousand won)	11.98
Husband earnings missing	0.4
Home ownership, yes	54.8
Family financially difficult, yes	60.9
Number of children	
Number of sons	1.0
Number of daughters	0.9
Dissatisfaction with family life	
Wife is respondent and dissatisfied with family relationships and family income	9.8
Husband is respondent and dissatisfied with family relationships	7.4
(Wife is respondent and not dissatisfied with family relationships and income)	56.1
(Husband is respondent and is not dissatisfied)	20.4
(A third person is respondent)	6.3
Living with wife's relatives, yes	2.4
Number of cases	2,506

Note: Categories put in parentheses are omitted categories in logistic analysis.

Table 2. Records of Divorce or Separation for Either Spouse

	Recorded husband is divorced or separated		
	No	Yes	Total
Recorded wife is divorced or separated			
No			
Frequency	**2406**	**40**	**2446**
Percentage, grand total	96.0	1.6	97.6
Yes			
Frequency	**33**	**27**	**60**
Percentage, grand total	1.3	1.1	2.4
Total			
Frequency	**2439**	**67**	**2506**
Percentage, grand total	97.3	2.7	100

	Recorded either spouse is separated		
	No	Yes	Total
Recorded either spouse is divorced			
No			
Frequency	**2406**	**29**	**2435**
Percentage, grand total	96.0	1.2	97.2
Yes			
Frequency	**59**	**12**	**71**
Percentage, grand total	2.3	0.5	2.8
Total			
Frequency	**2465**	**41**	**2506**
Percentage, grand total	98.4	1.6	100

Table 3. Factors Affecting Divorce or Separation between 1998 and 2003

	Bivariate models		Model 1		Model 2		Model 3	
	b	se	b	se	b	se	b	se
Wife age at marriage (24-29)								
'17-20	1.25**	0.27	1.22**	0.30	1.21**	0.30	1.52**	0.32
'21-23	0.50*	0.24	0.45^	0.25	0.48^	0.25	0.61*	0.26
'30 or more	0.57	0.54	0.75	0.55	0.60	0.55	0.16	0.57
Wife age[a]	-0.06**	0.02	-0.07**	0.02	-0.05**	0.02	-0.02	0.02
Wife employment status (not working & not seeking work)								
Paid employee								
from before marriage	-0.02	0.55	0.25	0.56	-0.19	0.63	-0.38	0.64
after marriage, 1-53 hours	0.58^	0.34	0.80*	0.35	0.44	0.42	0.35	0.42
after marriage, 54+ hours	1.32**	0.34	1.53**	0.36	1.13**	0.42	1.05*	0.43
Self employed	0.33	0.41	0.64	0.43	0.08	0.53	0.11	0.53
Family worker	-0.71	0.54	-0.49	0.55	-0.55	0.56	-0.61	0.56
Seeking work	0.62*	0.28	0.76**	0.28	0.65*	0.29	0.56^	0.29
Wife education (High school)								
Middle school or less	-0.35	0.23	-0.32	0.28	-0.41	0.28	-0.44	0.29
Junior college or more	-0.89*	0.36	-0.75*	0.38	-0.68^	0.39	-0.74^	0.39
Wife earnings[a]	0.25	0.17			0.39	0.29	0.40	0.29
Husband earnings[a]	-0.45**	0.13			-0.21	0.15	-0.15	0.15
Owns home (No)								
Yes	-0.85**	0.21			-0.61**	0.23	-0.59*	0.23
Financially difficult (No)								
Yes	0.73**	0.24			0.55*	0.26	0.61*	0.26
Number of sons[a]	-0.51**	0.15					-0.60**	0.20
Number of daughters[a]	-0.51**	0.16					-0.58**	0.18
Satisfaction with family life (satisfied)								
Wife dissatisfied	0.85**	0.27					0.67*	0.29
Husband dissatisfied	0.85**	0.31					0.81*	0.34
Living with wife's relatives (No)								
Yes	1.23**	0.42					1.24*	0.46
Intercept			-1.45	0.60	-1.76	0.65	-2.25	0.65
Chi-square (df)			66(12)		88(18)		117(23)	
Number of cases	2506		2506		2506		2506	

Note: ^ p<.10 * p<.05 ** p<.01

Models 1 through 3 also include 'wife earnings missing' and 'husband earnings missing'.

a) These are continuous variables.

Table 4. Work Characteristics of Paid Employees by the Timing When the Wife Began this Job

	Wife began this job before or after marriage					
	Before		After		Total	
	frequency	%	frequency	%	frequency	%
Weekly working hours						
1-34 hours	35	24.6	82	19.0	117	20.4
35-53 hours	94	66.2	198	45.9	292	51.0
54+ hours	13	9.2	151	35.1	164	28.6
total	142	100.0	431	100.0	573	100.0
		(24.8)		(75.2)		(100.0)
Type of employment						
Regular employment	93	65.5	216	50.1	309	53.9
Irregular employment	49	34.5	215	49.9	264	46.1
total	142	100.0	431	100.0	573	100.0
Occupation						
Professional, managerial	41	28.9	12	2.8	53	9.3
Clerical	57	40.1	107	24.8	164	28.6
Service	9	6.4	115	26.7	124	21.6
Blue collar	33	23.2	127	29.5	160	27.9
Unknown	2	1.4	70	16.2	72	12.6
total	142	100.0	431	100.0	573	100.0

Table 5. Interaction Effects of Earnings and Regular Paid Employment

	Model 1		Model 3	
	b	se	b	se
Wife's employment status (Not working & not seeking work)				
Regular employee	1.90**	0.71	1.59*	0.76
Irregular employee	0.68^	0.38	0.47	0.39
Self employed	0.14	0.53	-0.10	0.55
Family worker	-0.54	0.55	-0.64	0.56
Seeking work	0.75**	0.28	0.57^	0.29
Wife earnings	0.49^	0.27	0.59*	0.28
Wife earnings*Regular employee	-1.73*	0.86	-1.76^	0.93

Models 1 and 3 are the equivalent of those in Table 3 except for the interaction term.
Model 1 also includes the variables of age at marriage, age, education and earnings missing.
Model 3 also includes the variables of age at marriage, age, education, husband earnings, financial difficulty, home ownership, numbers of sons and daughters, dissatisfaction with family life, living with wife's relatives, and earnings missing.

Appendix

Table A1. Factors Affecting Divorce or Separation between 1998 and 2003

	Bivariate models		Model 1		Model 2		Model 3	
	b	se	b	se	b	se	b	se
Wife age at marriage (24-29)								
'17-20	1.25**	0.27	1.25**	0.30	1.22**	0.30	1.55**	0.32
'21-23	0.50*	0.24	0.47	0.25	0.49*	0.25	0.63*	0.26
'30 or more	0.57	0.54	0.72	0.54	0.57	0.55	0.12	0.57
Wife age[a]	-0.06**	0.02	-0.06**	0.02	-0.05**	0.02	-0.02	0.02
Wife employment status (not working & not seeking work)								
Paid employee								
from before marriage	-0.31	0.53	-0.10	0.54	-0.49	0.61	-0.65	0.62
after marriage, 1-53 hours	0.29	0.31	0.43	0.32	0.12	0.38	0.07	0.39
after marriage, 54+ hours	1.03**	0.30	1.15**	0.32	0.80*	0.39	0.78*	0.40
Self employed	0.04	0.39	0.27	0.40	-0.25	0.50	-0.18	0.51
Family worker	-1.00^	0.52	-0.85	0.53	-0.87	0.53	-0.88	0.54
Wife education (High school)								
Middle school or less	-0.35	0.23	-0.31	0.28	-0.41	0.28	-0.44	0.29
Junior college or more	-0.89*	0.36	-0.72^	0.37	-0.63	0.39	-0.71^	0.39
Wife earnings[a]	0.25	0.17			0.39	0.29	0.40	0.29
Husband earnings[a]	-0.45**	0.13			-0.23	0.15	-0.16	0.15
Owns home (No)	-0.85**	0.21			-0.60**	0.23	-0.56*	0.23
Yes								
Financially difficult (No)	0.73**	0.24			0.61*	0.26	0.63*	0.26
Yes								
Number of sons[a]	-0.51**	0.15					-0.62**	0.19
Number of daughters[a]	-0.51**	0.16					-0.60**	0.17
Satisfaction with family life (satisfied)								
Wife dissatisfied	0.85**	0.27					0.69*	0.29
Husband dissatisfied	0.85**	0.31					0.82*	0.33
Living with wife's relatives (No)								
Yes	1.23**	0.42					1.29**	0.45
Intercept			-1.29	0.59	-1.64	0.64	-2.12	0.64
Chi-square (df)			59(11)		83(17)		113(22)	
Number of cases	2506		2506		2506		2506	

Note: ^ p<.10 * p<.05 ** p<.01

Models 1 through 3 also include 'wife earnings missing' and 'husband earnings missing'.

This table presents the same models as Table 3 except for one change. In wife's employment status, 'seeking work' is now combined with 'not working' to be the omitted category.

a) These are continuous variables.

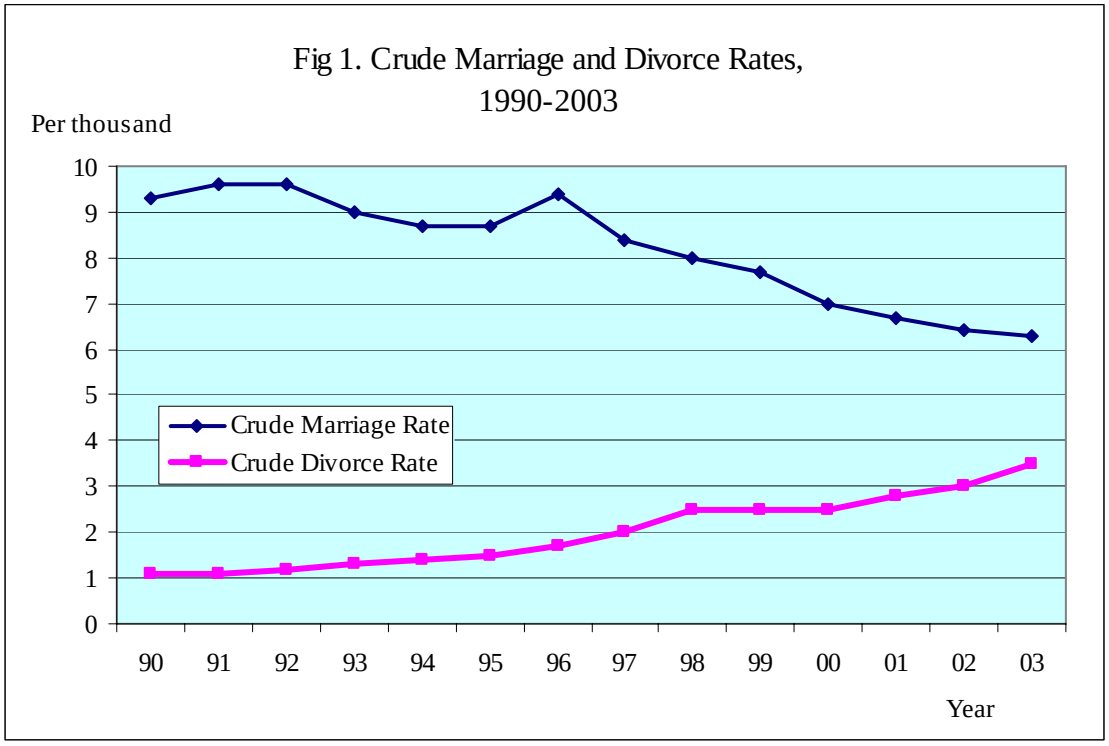
Fig 1. Crude Marriage and Divorce Rates,
1990-2003
Per thousand
10
9
8
7
6
5
4
3
2
1
0
Crude Marriage Rate
Crude Divorce Rate
90
91
92
93
94
95
96
97
98
99
00
01
02
03
Year