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Determinants of the Marital Dissolution and Female Labor Supply

Mei Hsu*

I. Introduction

The divorce risk of married couples has been increasing in the past decade in Taiwan as a result of dramatic changes in the structure of industry and social norm as well as the rising economic independence of female. The crude divorce rate in Taiwan was roaring in the last 15 years; it was 1.7‰ in 1996 as compared to 0.9‰ in 1981, indicating that the growth rate of crude divorce rate was about 89% over the 15 years. Existing literature focuses on the determinants of marital separation has expanded greatly in recent years, it mainly deals with countries in Europe and United States. Few works have been done for countries in Asian-Pacific, especially for Taiwan.

A growing body of research on the economics of marriage and divorce has considered the analysis of the determinants of family formation and dissolution, but little work along this line has been devoted to analyzing the relationship between labor force participation rates and marital dissolution. Previous studies of marital dissolution analyze an increase in the labor supply as a response to a rise in the divorce risk, focusing mainly on the income effect caused by the loss of family financial supports due to marital separation (e.g., Duncan and Hoffman, 1985). Becker (1991) provides the theory of gains from specialization of the spouse's time allocated in market and non-market activities to explain the changes in the wifes' labor supply. Therefore, marital separation leads a wife to increase hours of work as a result of losing the gains to specialization of a husband's time in market activities. Alternatively, Mansor and Brown (1980), McElroy and Horney (1981) and McElroy (1990) investigated the wife's labor supply within a family in the content of a Nash Bargained model. As pointed in the Mroz's (1985) seminal work, however, there are a lot of unexplained substantial variations in labor participation rates and in hours of

* Associate Professor, Department of Economics, National Chung-Hsing University.

work left when past research investigated the labor supply of married women.

The objective of this study is motivated by the drastic changes in the divorce rate in Taiwan and to document the impact of various factors on divorce risk at one hand, and to investigate causality between marital dissolution and labor force participation rate on the other hand. A data set employed in this research is constructed from the 1992 and the 1993 *Manpower Survey* (MPS), and the 1993 *Fertility and Employment of Married Women Survey* (FEMWS). These three cross-sectional data were conducted by Bureau of Census, Directorate-General of Budget, Accounting & Statistics (DGBAS), Executive Yuan.

A simultaneous relationships are conducted for divorce probabilities and female labor supply to characterize the impact of increasing potential divorce risk on the wife's labor force participation in the labor market, and to document the rising hours of work responding to higher potential divorce probabilities. Moreover, the "economic independence" effect (measured mainly by the woman's potential wage or earnings) hypothesized by high potential earnings with a great potential divorce probability is tested in the paper as well. This study is valuable as it highlights the relationship between shifts in the socio-economic structure and evolution of family, and illuminates the relation between marital dissolution and labor supply of females. Moreover, this study signifies the roles of economic independence and educational attainments of women in Taiwan. Furthermore, it bears significant implications for the late comers such as countries in South East Asia. This is so because their economic structure will be like that of Taiwan in a few years.

The empirical results from a 1992-1993 short-panel data set support the hypothesis that a wife has hedged the high probability of marital dissolution by increasing hours of work in the labor market to accumulate job experience. In particular, we obtain an interesting result that a 500- to 600-hour increase in the wife's annual hours of work can be attributed to a 1% rising divorce risk. Accordingly, this research provides a new aspect in explaining the rise in female hours of work shedding light on existing researches on the female labor supply in Taiwan.

The following section is devoted to specifying the econometric model and estimation procedures in order to characterize and disentangle the endogeneity

relation between probabilities of marital dissolution and female labor decision. The source of data is described in great detail in the section three. The final section concludes the significant roles of females' education and son-preference of Taiwanese family in the marital instability.

II. Model Specifications and Estimation Procedure

In this section, an assumed simultaneous relationship is conducted and tested for the divorce probabilities and female labor supply. This hypothesized model is to characterize the impact of increasing potential divorce risk on the wife's labor force participation in the labor market and to document the rising hours of work in responding to higher potential divorce probabilities. In addition, the "economic independent" effect hypothesized by a wife's high potential earnings resulting in high potential divorce probabilities is tested in this framework.

1. Structural Divorced Probit Model

Assume that probability value of divorce is endogenous and affected by the labor force participation, and the probit function for the divorce rate is written as

$$\theta_i = \alpha_\theta' X_i + \beta_\theta \ell_i + \upsilon_i, \qquad (1)$$

where θ_i presents the average perceived divorce rate, and X_i is a vector of explanatory variables describing the socio-economic characteristics that affect the probability of divorce rate, such as wife's age, educational attainment, work attitude, wife's income (measurement for economic independence), age at marriage, children's information, and husband's income. The average perceived divorce probabilities, in our research, estimated by two groups of females whose marital statuses are divorced and married with spouse present or cohabitating. The variable, ℓ_i, is the female labor force participation rate which will be defined later in the equation (2), and its effect on the divorced risk will be examined in the following. The parameters α_θ and β_θ are the corresponding vectors of coefficients to the variables of female's socio-economic characteristics, X_i, and labor force participation rate, ℓ_i which will be estimated in the maximization probit procedure. The error term, υ_i, is assumed to be distributed standard normally.

2. Labor Force Participation Rates and Labor Supply

Due to the outcome of self-selection, we can only observe the positive hours of work (labor supply) for those who participate in the labor force. The main driving force for females entering in the labor force is that the offered (market) wage, W_m, is greater than the reservation wage, W_R. Assume that the offered wage can be expressed as

$$W_m = \alpha' x_m + \varepsilon_m,$$

and the reservation wage can be written as

$$W_R = \beta' x_R + \gamma h + \delta\theta + \varepsilon_R,$$

where x_m and x_R are the vectors which affect the market wage and the reservation wage, respectively. The variable h is the hours of work, whereas θ is the divorced probability variable defined in the equation (1). The coefficients α', β', γ, and δ are the parameters that correspond to the explanatory variable vectors described as above. The terms ε_m and ε_R are assumed to be distributed as standard normal with mean zero and variance 1. If the hours of work in the reservation wage function is evaluated at zero, then

$$W_R^{\,0} = \beta' x_R + \delta\theta + \varepsilon_R,$$

The decision of participating in the labor force with positive worked hours can be made if $W_m > W_R^{\,0}$. The probit function for participating in the labor force ($\hat{\ell}_i$) can thus be expressed as

$$\Pr(I = 1) = \Pr(W_m > W_R^{\,0} \mid X_m, X_R, \hat{\theta}), \qquad (2)$$

where I is a dummy variable whose value equals to one if she is in the labor force with $W_m > W_R^{\,0}$ and has positive hours of work, and equals to zero otherwise. In this study, we assume that the labor force participation is affected by the divorce probability at beginning, and this hypothesized relationship will be tested in the empirical work.

The supply of worked hours, determined by the condition $W_m = W_R$, is expressed as the following function

$$\begin{cases} h = 1/\gamma(\alpha' x_m - \beta' x_R - \delta\theta) + \eta > 0, & \text{if } W_m > W_R^0 \\ h = 0 \quad , & otherwise \end{cases} \tag{3}$$

Then the hours of work equation can be re-parameterized as

$$h = \gamma_1 X_m + \gamma_2 X_R + \gamma_3 \hat{\theta} + \eta \ _{>0} \tag{4}$$

$$h = 0 \qquad \text{else.}$$

where $\gamma_1 = (-\alpha'/\gamma), \gamma_2 = (-\beta'/\gamma)$, and $\gamma_3 = (-\delta/\gamma)$.

However, the results from least squares regression on equation (4) are biased due to the non-randomness as a result of the sample selection and hence the conditional mean of the error term, η, is nonzero. The Heckit two-stage estimation procedure (Heckman, 1979) and Tobit estimation (1958) are employed to correct the non-randomness in the following section.

3. Multi-stages Estimation Procedures

To construct the assumed endogenous relationship between divorce probabilities and labor force participation of females, the joint estimations on the reduced and structural forms for both divorce and labor force participation probit equations are implemented. The multi-stages estimation procedures are utilized to disentangle the endogeneity between divorce risk and female labor supply behavior, and the procedures are described as follows.

At the first step, the reduced divorce probit and labor force participation probit are estimated and, therefore, the predicted values of divorce and labor force participation probabilities, $\hat{\theta}$ and $\hat{\ell}$, are derived respectively. At the second step, the derived probabilities of divorce, $\hat{\theta}$, and labor force participation rate, $\hat{\ell}$, from the first step, are plugged into the labor force participation probit and divorce probit equations, respectively. The estimations on the structural divorce and labor force participation probit thus are implemented.

At the last step, the worked hours of females are estimated. To correct the sample selection bias as a result of the non-randomness of the self-selection into the labor force, both the Heckit two-stage procedure and Tobit estimation are utilized in this respect. The Heckit procedure is conducted in the following two-stage: (1) At the first stage, the decision of participating in the labor force is modeled by the

structured probit equation with whole population sample, i.e., including working and non-working sample. (2) with the sub-sample of females who have positive hours of work, the augmented least square regression is implemented in the second stage, holding under control the inverse Mills' ratio (Heckman's lambda) computed from the structural probit in the first stage as an additional regressor. Therefore, the conditional mean regression model, with the consideration of correction for self-selection bias by employing Heckman's Lambda ($\hat{\lambda}$), can be expressed as:

$$h = \gamma_1 X_m + \gamma_2 X_R + \gamma_3 \hat{\theta} + \delta \hat{\lambda} + \nu \qquad (5)$$

With this correction, the conditional mean of ν is zero, and the estimation results of the least squares are unbiased.

Finally, the censored Tobit labor supply regression which is written in the equation (4) employing the entire population in estimation. With the consideration from both working and non-working sample, the Tobit model derives the maximum likelihood estimation.

III. Data Description

Ideally, a panel data set is the best for our purpose if it is available. Earlier we have constructed a small two-year data set using three cross-sectional data in this research. This constructed data set consists of the 1992 MPS, the 1993 MPS and the 1993 FEMWS by tracing out the same person from these survey data; that is, the exact same person appearing in the 1992 MPS is also both in the 1993 MPS and the 1993 FEMWS as well. There are about 50% correspondents in the 1992 MPS appearing in the 1993 MPS as well. Basically, the survey questionnaire of the MPS contains correspondents' manpower statistics such as labor force participation and the information regarding status of employment and unemployment. Specifically, the detailed information composes of sex, age, marital status, educational attainment, academic or professional specialty, hours of work during the survey week, work status last week, whether work for pay last week, the way of job-search, and reason of quitting the job, and classification of work.

The FEMWS was one of fifteen supplementary surveys to the MPS since 1979

and the latest survey conducted was in 1993[1]. A special feature of this survey is that it contains fertility, the number and the sex of children, family background, and the status of labor force participation for females in great detail that has not been covered by the MPS. The questionnaire of this survey mainly focuses on fertility, the time allocated to childcare, to eldercare and to the household works, and the status of childcare and monthly childcare expenses. Moreover, it comprises the job-changes history and labor force participation, such as the status of and the reasons for job-changes prior to and after marriage (childbirth), and husband's income as well.

This constructed 1992-1993 data set has the following characteristics of particular interests. First, by tracing out the same person from the 1992 MPS and the 1993 MPS, and the 1993 FEMWS, the basic information from MPS for a couple was collected in this data and the work history for the wife, in particular, can be constructed across these two years. Therefore, we have the variables for labor force participation, the status of work force, the hours of work, and job-changes information for a couple in general. In addition, this data set contains the information regarding the changes in educational attainment, work pattern (full-time versus part-time job), occupation, and the changes in marital status for a woman. Moreover, there is a valuable piece of information from this 1992-1993 constructed data as indicated by the dummy variable "*overwork*" in Table 1, namely that whether a woman works over 40 hours during the census week both in 1992 and 1993. Specifically, the proportion of women who overworked in both years is higher for the divorced or separated women (36.8%) than for those who are married with spouse present or cohabitating (23.5%)[2].

For the females with the age 15 years or over, the constructed 1992-1993 data set is composed of 6433 married with spouse present or cohabitating (*MSP*) and 171

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[1] The fifteen supplementary surveys are as follows: (1) Work Experiences, (2) Housing, (3) Manpower Utilization, (4) Time Utilzation, (5) Fertility and Employment of Married Women, (6) Internal Migration, (7) Status of Youngsters, (8) Status of Oldsters, (9) People's Leisure Life, (10) Job Expectations, (11) People's Culture Demand, (12) People's Life Style and Ethics, (13) Social Peace, (14) Vocational Training, and (15) Prevalent Diseases, Medical Aids and Employment Survey.

[2] The short-panel variable "*overwork*" was incorporated both in reduced and structural divorce probit regression as an explanatory variable at first, however, it was removed due to collinear with the wife's income variables. The final results are shown in Table 2. The variables containing information both for the 1992 and 1993 are termed as short-panel variable.

divorced or separated (*DIVSEP*). However, there were only three persons who have switched their marital status from *MSP* in 1992 to *DIVSEP* in 1993. It is hard to do the analyses in a panel data study based upon these three sample points and, therefore, we are obligated to employ the 1993 sub-sample from the constructed data set directly in this study. As a consequence, the empirical results in Table 2 include only the characteristics from this cross-sectional data set. As described by the summary statistics in Table 1, the divorced and separated females have on average a higher labor force participation rate, and a larger proportion of people working over time across the two census years and living in the metropolitan area than those who are married with spouse present or cohabitating. Moreover, as compared to the divorced and separated females, the married with spouse present or cohabitating females tend to be younger, have a larger number of children and spend more time on the household works.

IV. Findings and Conclusions

Table 2 reports the probit results from divorce and labor force participation probabilities. Table 3 shows the regression results for labor supply. As indicated from both tables, our main finding is that a greater predicted probability of labor force participation generates a higher probability of divorce. On the contrary, as suggested by the results of the structural labor force participation probit regression, the predicted (expected) divorce risk bears no significant effect on the probability of labor force participation. However, the predicted probability of divorce does have significant effect on the hours of work as revealed in Table 3. In contrast to the research findings of Greene and Quester (1982) and Johnson and Skinner (1986), the causality runs significantly from the probability of labor force participation to the probability of marital dissolution in our research. However, Becker, Landes and Michael (1997) observed that the rise in women's labor force participation rates has partly been caused by, as well as has caused, the rise in marital instability.

As expected, as indicated in Table 2, the probability of marital dissolution reaches to a peak within the age range of 35 to 44 *(Age2)*, and it then decreases as females become aged. After 65 years old (*Age5*), it is far more unlikely to divorce or

separate. This result resembles the findings of Becker, Landes and Michael (1977) in the sense that the duration of marriage discourages the probability of marital dissolution. The estimated coefficients on the wife's income show that the larger the economic independence of wife, the greater the probability of divorce, and therefore the hypothesis of the effect of economic independence of wife on the marital separation is confirmed. The same result of the unstable effect of wife's income on the marital separation is also found in Becker, Landes and Michael (1997).

We also find that an increase in the investment of the martial-specific capital, such as having children (*Malekid, Femkid)* and allocating more wife's time in the non-market sector (*Kidtime, Oldtime, Hometime*), tends to reduce the probability of dissolution significantly. In particular, this probability is far more discouraged if the family has a larger number of male children as indicated in our study. This result resembles that of Zeng et al (1992), in which the evidence of a son-preference has a significant effect on marital dissolution. Women with no son have a significant higher risk of divorce as compared to those with at least one son.

A husband's income plays a significant role in explaining the stable function on the marital separation[3]. Similarly, a higher non-wife's income (*nowifinc*) in the hours of work regressions signals the lower hours of work. Most of all, as indicated in the Tobit hours supply equation, a 1% increase in the divorce risk induces on average the worked hours by 9.9 to 11.9 hours per week. Accordingly, a 500- to 600-hour increase in the female annual hours of work can be attributed to 1% rising divorce risk.

This study employs the labor supply models to investigate the labor market behavior of divorced women and determinants of the marital dissolution. Therefore, this research provides a new aspect in explaining the rise in female hours of work shedding light on existing researches on female labor supply in Taiwan. However, the analyses on the determinants of the marital dissolution and the causal relationship

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[3] We predict the husband's income and educational attainment for those divorced or separated women with their married counterpart's husbands' information and employ the age cohort analysis. This is so because the ex-husband's information of divorced or separated woman is not available. The regression results are available from authors by request.

between marital dissolution and labor force participation rates can be extended in the future if the "real" panel is available.

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Table 1 Summary Statistics and Definitions for Variables

Variables	Definition	Marital Status: Married with spouse present or cohabitating (MSP) sample size = 6433 Mean (standard error)	Marital Status: Divorced or Separated (DIVSEP) sample size = 171 Mean (standard error)
Labor Force Participation Rate	Percentage of population worked for pay during the census week	0.457(0.498)	0.614(0.488)
Hrsupply	Monthly total hours of work	78.780(94.020)	111.951(100.150)
Age (dummy)			
Age	Average age of the females	43.580(13.002)	44.386(11.707)
A2	Age squares/100	20.682(12.394)	21.064(11.389)
Age0 (reference)	Equal 1 if age 15 to 24	0.030(0.171)	0.018(0.132)
Age1	Equal 1 if age 25 to 34	0.256(0.437)	0.170(0.376)
Age2	Equal 1 if age 35 to 44	0.307(0.461)	0.404(0.492)
Age3	Equal 1 if age 45 to 54	0.186(0.389)	0.193(0.396)
Age4	Equal 1 if age 55 to 64	0.145(0.352)	0.146(0.354)
Age5	Equal 1 if age 65 and over	0.076(0.265)	0.070(0.256)
Educational Attainment (dummy)			
Edu	Average educational attainment (years)	7.620(4.171)	7.782(3.900)
Edu0	Illiterate, self-taught, primary school (reference group)	0.550(0.498)	0.515(0.501)
Edu1	Junior high school	0.165(0.371)	0.216(0.413)
Edu2	Senior high and vocational school	0.205(0.404)	0.211(0.409)
Edu3	Junior college, university, and the Graduate school	0.079(0.270)	0.058(0.235)
Work Attitude (dummy)			
overwork	Equal 1 if she worked over 40 hours during census week both for 1992 and 1993	0.235(0.424)	0.368(0.484)
overwk81	Equal 1 if she worked over 40 hours in 1992	0.320(0.466)	0.468(0.500)
nowkwf7	1 if jobless , ever quitted because of marriage, jobless since then till now	0.176(0.381)	0.082(0.275)
birabswk*	1 if quitted a job because of childbirth	0.004(0.065)	0(0)
Wife's income (dummy, the same variable name for both MSP and DIVSEP)			
wifinc	wife's income/1000	7.355 (12.605)	13.959 (146.604)
wifeinc0 (reference)	Unpaid family worker	0.125(0.330)	0.011(0.108)
wifeinc1	1 if her income between 0 and 9999	0.030(0.169)	0.029(0.169)
wifeinc2	1 if her income between 10000 and 19999	0.135(0.341)	0.211(0.409)
wifeinc3	1 if her income between 20000 and 49999	0.149(0.356)	0.327(0.471)
wifeinc4	1 if her income is equal to 50000 and above	0.009(0.095)	0.018(0.132)
nowifinc	None-wife income, measured by the earnings differentials between husband and wife	19.645 (20.536)	—

Table 1 Variable Definitions and Means (continued)

Variables	Definition	Marital Status: Married with spouse present or cohabitating (MSP) sample size = 6433 Mean (standard error)	Marital Status: Divorced or Separated (DIVSEP) sample size = 171 Mean (standard error)
Age at marriage (dummy)			
Marage	Average age at marriage	22.037(3.427)	22.099(3.805)
Marage1	1 if age at marriage is 15 to 19	0.224(0.417)	0.228(0.421)
Marage2	1 if age at marriage is 20 to 25	0.626(0.484)	0.614(0.488)
Marage3	1 if age at marriage is 26 to 30	0.135(0.342)	0.123(0.329)
Marage4	1 if age at marriage is 30 and above	0.024(0.154)	0.053(0.224)
Children's information			
malekid	Total number of male children	0.783(0.412)	0.591(0.493)
femkid	Total number of female children	0.698(0.459)	0.550(0.499)
T_ownkid	Total number of children	2.611(0.159)	1.766(1.403)
Careway	Way of child daycare: (1) Herself (child's parents), (2) Interviewee's parents (children's grandparents), (3) Other relatives (unpaid/free daycare) (4) Babysitter (daycare at interviewee's home), (5)Family nursery (daycare at babysitter's home), (6)Nursery or daycare center subsidized by employer's emterprise, (7) Public-funded nursery or daycare center, (8) Private-funded nursery or daycare center	1.270(1.010)	1.200(1.061)
Carefee	Monthly childcare expense	393.566(1895.97)	316.374(1865.31)
Time for Household Works			
Kidtime	Time allocates to childcare everyday (measured by hours)	2.451(2.744)	1.252(1.984)
Oldtime	Time allocates to eldercare everyday (measured by hours)	0.272(0.887)	0.154(0.742)
Hometime	Time allocates to house keeping works everyday (measured by hours)	3.259(1.800)	2.897(1.817)
T_HHtime	Total time allocates to childcare, eldercare, and housekeeping works everyday (measured by hours)	5.982(3.632)	4.303(3.006)
Hage	Husband's age	45.891(15.801)	—
Hsalary	Husband's income/1000	2.700(1.917)	—
Husedu	Husband's education	9.164(3.960)	—
Phsalary	Predicted values of husband's income for divorced or separated females divided by 1000	—	27.001 (19.174)
Agediff	Age differentials between husband and wife	2.311(10.097)	—
Urbanity	Equal 1 if live in the metropolitan area Equal 2 if live in city Equal 3 if live in township area	1.553(0.764)	1.427(0.735)

* It means interviewee not only ever quitted a job because of marriage but ever quitted again for more than 3 months because of childbirth after last reemployment.

Table 2 Regression Results for Divorce and Labor Force Participation Probit

Variables	Reduced Divorce Probit	Structural Divorce Probit	Reduced Labor Force Participation	Structural Labor force Participation
	Coefficient (standard error)	Coefficient (standard error)	Coefficient (standard error)	Coefficient (standard error)
Age				
Age0 (15~24, reference)	—	—	—	—
Age1(25~34)	0.45(0.34)	0.49*(0.35)	—	—
Age2(35~44)	1.08**(0.35)	1.15***(0.36)	—	—
Age3(45~54)	0.44(0.36)	0.39(0.36)	—	—
Age4(55~64)	0.29(0.37)	0.13(0.39)	—	—
Age5(65~)	-1.18***(0.36)	-1.68***(0.51)	—	—
Age	—	—	0.08(0.09)	0.07(0.08)
A2	—	—	-0.14*(0.09)	-0.12(0.09)
Education				
Edu0(reference)	—	—	—	—
Edu1	0.50***(0.15)	0.51***(0.15)	-0.18(0.37)	-0.21(0.36)
Edu2	0.17(0.16)	0.19(0.16)	-0.03(0.38)	-0.06(0.37)
Edu3	-0.06(0.24)	0.02(0.25)	0.26(0.57)	0.22(0.55)
Work Attitude				
Birabswk	—	—	0.03(0.17)	0.001(1.65)
Wife's income				
Wifeinc1	0.31(0.30)	0.37(0.31)	—	—
Wifeinc2	0.49***(0.15)	0.55***(0.16)	—	—
Wifeinc3	0.49***(0.14)	0.57***(0.15)	—	—
Wifeinc4	-0.01(0.41)	0.02(0.42)	—	—
Age at marriage				
Marage	—	—	0.02(0.04)	0.02(0.04)
Marage1(~19)	-0.80*(0.37)	-0.96***(0.39)	—	—
Marage2(20~25)	-0.68*(0.36)	-0.81**(0.38)	—	—
Marage3(26~30)	-0.87*(0.37)	-1.01***(0.39)	—	—
Marage4(30~)	-0.42(0.37)	-0.51(0.38)	—	—

Table 2 Regression Results for Divorce and Labor Force Participation Probit (continued)

Variables	Reduced Divorce Probit	Structural Divorce Probit	Reduced Labor Force Participation	Structural Labor force Participation
	Coefficient (standard error)	Coefficient (standard error)	Coefficient (standard error)	Coefficient (standard error)
Marital Status				
MSP(reference)	—	—	—	—
DIVSEP	—	—	0.24(0.80)	0.14(0.91)
Children's information				
Malekid	-0.69***(0.14)	-0.71***(0.14)	—	—
Femkid	-0.38***(0.12)	-0.37***(0.12)	—	—
T_ownkid	—	—	-0.06(0.10)	0.07(0.10)
Careway	—	—	0.48**(0.21)	0.49**(0.20)
Carefee	—	—	-0.10(0.10)	-0.09(0.01)
Time for Household Works				
Kidtime	-0.06*(0.02)	-0.10**(0.04)	—	—
Oldtime	-0.16**(0.06)	-0.21***(0.07)	—	—
Hometime	-0.03(0.03)	-0.06*(0.04)	—	—
T_hhtime	—	—	-0.19***(-0.0.04)	-0.19***(0.04)
Phsalary	-0.40*(0.30)	-0.40*(0.30)	-0.001(0.076)	0.003(0.008)
Urbanity	-0.07(0.07)	-0.05(0.44)	0.16(0.16)	0.17(0.16)
Predicted divorce rate $\hat{\theta}$	—	—	—	-1.75(1.99)
Predicted labor force participation $\hat{\ell}$	—	0.64*(0.45)	—	—
Intercept	—	—	-1.24(1.92)	0.59(2.78)
Sample Number	6604	6604	6604	6604
Log Likelihood	-412.71	-411.74	-3461.17	-3443.35
Pseudo R-squares	0.480	0.481	0.241	0.244

*** at 1% significant level

** at 5% significant level

* at 10% significant level

Table 3 Regression Results for Labor Supply

(Normalized Coefficients of Tobit Labor Supply)

Variables	Two-Stage Labor Supply (Weekly Hours of Work)	Tobit Labor Supply	
		Coefficient (standard error)	
	Coefficient (standard error)	Not Corrected for selection	Corrected for selection
Age			
Age0 (15~24, reference)	5.05***(0.38)	7.60***(0.550)	2.61***(0.52)
Age1(25~34)	5.00***(0.37)	8.51***(0.44)	2.56***(0.43)
Age2(35~44)	5.05***(0.37)	9.61***(0.45)	3.12***(0.43)
Age3(45~54)	5.05***(0.37)	7.97***(0.46)	2.28***(0.44)
Age4(55~64)	4.95***(0.39)	5.19***(0.49)	1.72***(0.45)
Age5(65~)	—[a]	—	—
Education			
Edu0(reference)	—	—	—
Edu1	-0.13(0.08)	-0.42*(0.21)	0.22(0.19)
Edu2	-0.19*(0.08)	0.44*(0.22)	0.13(0.20)
Edu3	-0.83***(0.11)	-0.43(0.32)	-2.17***(0.29)
Husband's education			
Husedu	-0.002(0.009)	-0.04*(0.02)	-0.07*(0.02)
Children's information			
T_ownkid	-0.07*(0.02)	-2.08E-4(0.06)	-0.12*(0.06)
Age at marriage			
Marage	-0.01(0.01)	0.97(0.84)	0.01(0.02)
Nowifinc	-0.01**(0.002)	-0.08***(0.005)	-0.08***(0.004)
Urbanity	-0.08*(0.03)	0.30***(0.08)	-0.18*(0.08)
IMR	-0.56**(0.08)	—	-4.89***(0.16)
predicted divorce rate $\hat{\theta}$	0.93*(0.33)	9.90***(1.09)	11.90***(0.98)
Intercept	—	-8.60***(1.20)	-6.92***(1.11)
Sample Number	2058	6604	6604
Log likelihood	—	-19729.06	-19185.47
Pseudo R-square	—	0.10	0.12
R-square	0.577	—	—
Adjusted R-square	0.570	—	—

*** at 1% significant level, ** at 5% significant level, * at 10% significant level

a. The sample number is zero in this age range.